



Getting Started with Wharton Research Data Services

Ryerson University

http://wrds.wharton.upenn.edu

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Welcome to Wharton Research Data Services!

Wharton Research Data Services (WRDS) is the leading, comprehensive, Internet-based data research service used by academic, government, non-profit institutions, and corporate firms. WRDS manages the data and delivers it in a seamless, unified, and consistent form. WRDS provides the user with one location to access over 200 terabytes of data across multiple disciplines including Finance, Marketing, and Economics.

WRDS provides flexible data delivery options, including executing research and strategy development on the WRDS computing cloud. Our databases allow you the foundation to craft a sound business strategy.

Developed in 1993 to support faculty research at The Wharton School of the University of Pennsylvania, our service has since evolved to become the standard tool for a global research community of **30,000+ users** at **over 300 institutions** in 27 countries including:

Stanford University Harvard University University of Chicago

London Business School Massachusetts Institute of Technology and more

This hosted data service has become the locus for quantitative data research and is recognized by the academic and financial research community around the world as the leading business intelligence tool.

Data. WRDS data is compiled from independent sources that specialize in specific historical data. Some sources include Capital IQ, NYSE Euronext, CRSP, and Thomson Reuters. WRDS Provides seamless access to an extensive collection of databases, covering numerous financial, economic and marketing disciplines.

Flexible Delivery Options. WRDS may be accessed through three methods:

- **Web interface.** Research one firm or several hundred firms simultaneously. All the databases have a common interface and a consistent data format through online queries.
- **PC SAS Connect.** The power of a Unix system in a familiar Windows environment. Use SAS on your PC to submit jobs on the WRDS cloud or download data directly to your PC and analyze using our extensive site, programs and utilities.
- WRDS Cloud. The WRDS Cloud leverages our unique infrastructure to process submitted information producing results with greater proficiency, resulting in vastly shorter processing periods for our clients. With increased computing power, additional time can be focused on research and analysis. Connect to WRDS for a terminal session, run custom programs in SAS to retrieve data. Other languages available on the WRDS system include C and FORTRAN.

Services. WRDS provides a common interface to a variety for databases, simplifying extraction and increasing productivity with:

- Support from a team of Ph.D. and IT Specialists are available to you on-line through WRDS Support.
- **E-Learning.** A Library of on-demand video sessions covering a host of topics, presented by our research experts.
- Timely Updates. Our experienced IT specialists convert and install database updates, for immediate access.
- **Learning Environment.** WRDS enables faculty to demonstrate real-world applications of principles, using actual company data in place of hypothetical examples.
- Data Validation, Integrity and Consistency.

We hope you enjoy your new WRDS accounts. We are confident you will find the ease of access, abundance of data, and system support a significant benefit to your research and teaching endeavors.

Sincerely, WRDS Staff

1.1 Eligibility for Access

All full-time faculty, staff, and students at Ryerson University are eligible for web access to WRDS. Individual (faculty, doctoral, staff, visitor and research assistant) accounts, which allow SSH access, may be provided with access at the discretion of the university's WRDS Representative. Unfortunately, alumni members of the community, research colleagues outside the university, and other persons not actively employed or registered with the university do not qualify.

Our WRDS policy prohibits undergraduate/Masters students from accessing WRDS during the extended break between semesters. Once the new semester begins, these students will again be able to access their WRDS accounts. Please contact <u>WRDS Support</u> with any questions.

1.2 Applying for an Account

Step 1:

• Point your web browser to http://wrds.wharton.upenn.edu

Step 2:

- In the center of the login screen, you will see a link entitled "Register for a WRDS Account."
- Click on that link. Then click on the link entitled "new account."

Step 3:

• Fill out the account request form.

Step 4:

• Click the box entitled 'submit."

1.3 Types of Accounts

Faculty: Faculty accounts are available to all standing faculty of member institutions. Standard accounts allow unlimited access via web, SSH, and/or FTP, and include 750 MB of home/projects storage. Faculty will have their own password access; this password is to remain confidential and is <u>not to be shared with any other individual</u>.

Staff: Staff accounts can only be requested by support personnel such as librarians, IT support staff or other staff of member institutions. (Please note that this type of account does not automatically carry WRDS Rep privileges, though many WRDS reps have this kind of account. WRDS Rep administrative capabilities are assigned separately from the account designation.) Staff accounts allow unlimited access via web, SSH, and/or FTP, and include 750 MB of home/projects storage. Staff will have their own password access; this password is to remain confidential and is <u>not to be shared</u> with any other individual.

Ph.D. student: Ph.D. accounts are available to all current Ph.D. candidates of member institutions. (Ph.D. candidates who accept a faculty appointment at another institution may continue to use their WRDS account until they defend their dissertation. After the defense, then the WRDS Rep will disable the account.) Standard accounts allow unlimited access via web, SSH, and/or FTP, and include 750 MB of home/projects storage. Doctoral students will have their own password access; this password is to remain confidential and is <u>not to be shared with any other individual</u>.

Masters student: Masters accounts are available to full-time masters students of member institutions. These accounts allow unlimited access via the WRDS website. Masters students will have their own password access. These accounts do NOT include disk storage. This password is to remain confidential and is not to be shared with any other individual. *Please note:* Our WRDS policy prohibits undergraduate/Masters students from accessing WRDS during the extended break between semesters. Once the new semester begins, students will again be able to access their WRDS accounts. Please contact WRDS should you have any questions regarding this access.

Visitor: Visitor accounts are available to visiting faculty (non-permanent or part time position). These accounts are subject to additional review and may not be used after the visiting appointment ends. The WRDS Rep will choose to approve this person as a visitor. The guidelines for "visitors" require a formal relationship between the institution and the individual -- the individual is being paid to be at your institution or has a formal letter of appointment (from a Dean) to an unpaid position. This generally precludes co-authors and Ph.D. candidates as well as unpaid research associates. The User will have to accept additional Terms of Use prior to access. Standard accounts allow unlimited access via web, SSH, and/or FTP, and include 750 MB of home/projects storage. This password is to remain confidential and is not to be shared with any other individual

Research Assistant: Research accounts are available to graduate and undergraduate students performing research for a faculty member. Research Accounts allow access via web, SSH, and/or FTP, and include 750 MB of home/projects storage. A standing faculty member may have one Research Assistant account. Research assistants will have their own password access; this password is to remain confidential and is <u>not to be shared with any other individual</u>.

Class: Class accounts may be requested by standing faculty of member institutions and are used to access the WRDS web interface. These accounts are primarily for student usage that is associated with a specific class and all students in the class share the same password. Up to 15 simultaneous users will share the same account and password. These accounts provide access only and do NOT include disk storage. They expire at the end of the term. This password is not to be shared with any other individual outside of the class.

Library/Lab: Library/Lab accounts are used to access WRDS using IP authentication. When logging into WRDS, users enter a valid email account. This is not a login which will need approval from your local WRDS Representative, but simply a valid email account.

Users will then be asked to enter an email account with your institution's domain. WRDS will then send an email message to that email account to verify that the account is valid. This email will contain an "Access Pass" link which the User can click on to get direct access into WRDS.

1.4 WRDS Terms of Use

All users must agree to the following:

1. ACCEPTANCE OF TERMS

Welcome to the Wharton Research Data Services ("WRDS") website (the "Web Site") through which WRDS provides access to a wide variety of business information databases and software tools with which to use them, to institutions and entities that subscribe to WRDS' services, and to their authorized users. You are authorized to use the information and services available at this Web Site only if you are an authorized user of WRDS' services and agree to these **Terms of Use**, which constitute a legally binding agreement between you and WRDS. We may modify these **Terms of Use** at any time, and will post the modified **Terms** on this Web Site. Any modification is effective immediately upon posting. Your continued use of the Web Site following modification of these **Terms of Use** will be conclusively deemed to signify your acceptance of such modification.

In addition, you agree as follows:

- Use of the WRDS services is governed by and restricted under the Subscription Agreement between the host entity or institution (the "Subscriber") and WRDS.
- You must protect the confidentiality of your WRDS username and password. You may not reveal, disclose, transfer or share your username and password with anyone, including without limitation a co-author or other collaborator.
- Users must access the WRDS database by the method or methods prescribed by WRDS. These methods may include Access Pass, a system that enables WRDS to prevent unauthorized or inappropriate use of the WRDS database by requiring user authentication. Methods of permitted access may change from time to time.
- All users will be prompted to agree to the WRDS **Terms of Use** on an annual basis.
- You may only have one designated and current Subscriber affiliation. If you should have two affiliations, your
 most current affiliation will support the account for your WRDS access. You are not permitted to hold WRDS
 Accounts at separate entities or institutions.
- All users must notify Wharton Research Data Services within thirty (30) days of any changes in your affiliation with the Subscriber, including without limitation if a user leaves a current Subscriber entity or institution or changes the affiliation in any manner. IF A USER IS NO LONGER EMPLOYED AT AN ENTITY OR INSTITUTION THAT SUBSCRIBES TO WRDS, THAT USER MAY NOT ACCESS OR USE THE WRDS SERVICES. If the new entity or institution is a then-current WRDS subscriber, Wharton Research Data Services will transfer that user's account and files to the new entity or institution's account. The use and access to the WRDS services will then be subject to these **Terms of Use** and the Subscription Agreement between the new entity or institution and Wharton Research Data Services. If the new entity or institution is not a then-current WRDS subscriber, then you may not access or use the WRDS services.
- The Subscriber entity or institution may place additional restrictions on use of and access to the WRDS services.

 All users must learn about and honor restrictions your entity or institution may place on users of the WRDS services and any use of the licensed data that is accessed through the WRDS services.
- User agrees to place the following acknowledgement in all publications or other communications prepared using the WRDS services: "Wharton Research Data Services (WRDS) was used in preparing ______ [identify research piece]. This service and the data available thereon constitute valuable intellectual property and trade secrets of WRDS and/or its third-party suppliers."

• To the extent there is any conflict between these **Terms of Use** and the Subscription Agreement governing your access and use of the WRDS services, the terms of the Subscription Agreement shall govern.

ADDITIONAL TERMS APPLICABLE TO ACADEMIC AND GOVERNMENT SUBSCRIBERS

Academic and government subscribers:

• The WRDS services are for academic and non-commercial research purposes only. Users may not use data downloaded from the WRDS database for any non-academic or commercial endeavor.

Academic subscribers:

• Individual WRDS accounts are offered to standing faculty, full-time research staff, currently-enrolled Ph.D. students, and full-time Masters students at Subscriber institutions. Access and individual accounts for research assistants, visiting scholars, and other non-permanent faculty is offered at Wharton Research Data Service's discretion. Access by other types of students is limited to class accounts, and special IP authenticated access within the library or computer lab, as provided by Wharton Research Data Services. Please note: Our WRDS policy prohibits undergraduate/Masters students from accessing WRDS during the extended break between semesters.

2. PROPRIETARY WEB SITE

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3. YOUR COMMUNICATIONS.

By posting messages, inputting data, uploading files of any kind or engaging in any other form of communication to or through this Web Site (individually or collectively, "Communications"), you represent and warrant that you are the owner of such Communications or have all rights necessary to upload, post, transmit and otherwise use them for your intended purpose. You grant WRDS an irrevocable, perpetual, non-exclusive, royalty-free, unrestricted license to reproduce, distribute, sub-license, modify, edit, adapt, translate, create derivative works of, publicly perform or display, transmit, broadcast or otherwise exploit all or any portion of your Communications, for any purpose, in any and all media now known or later developed. You waive all rights to any claim against us for any actual or alleged infringement of any proprietary rights, rights of privacy or publicity, moral rights and rights of attribution in connection with your Communications.

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other computer code designed to interrupt, destroy or limit the functionality of any computer hardware or software or telecommunications equipment, (d) are libelous or slanderous, contain false or misleading statements of fact, or misrepresent your identity or your affiliation with any person or entity, (e) contain any unsolicited or unauthorized advertising or promotional materials, "junk mail," "spam," "chain letters," "pyramid schemes," or any other form of solicitation, (f) use "robots" or otherwise harvest from this Web Site the e-mail addresses of others, or (g) violate any applicable local, state, national or international law or regulation (individually and collectively, "Prohibited Communications"). We reserve the right at all times to decline to post and to edit, remove, or restrict access to Communications from you that we regard in our sole discretion as objectionable or in violation of these **Terms of Use**.

We have no responsibility or liability for the deletion of or failure to post or store any Communications from you. You may not use our domain name as a pseudonymous return e-mail address for any communications that you transmit from another location or through another service. You may not pretend to be someone else – or spoof their identity – when using this Web Site or any of the services or resources available here. You may not transmit to this Web Site e-mail that includes false or misleading information in the return address or in the subject line.

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- (a) A physical or electronic signature of the person authorized to act on behalf of the copyright owner
- (b) Identification of the copyrighted work or works claimed to have been infringed
- (c) A detailed description of the material you claim is infringing, together with information sufficient to enable us to locate it, including the URL where the infringing material appears,
- (d) Your name, mailing address, telephone number and e-mail address
- (e) A statement by you that you believe in good faith belief that the copyrighted material identified is being used in a manner that is not authorized by the copyright owner, its agent or the law
- (f) A statement by you that the above information is accurate and, under penalty of perjury, that you are authorized to act on behalf of the owner of the copyright allegedly infringed.

Mr. John T. Lupton The Wharton School The University of Pennsylvania 3401 Walnut Street Suite 230A Philadelphia, PA 19104

Fax: 215-573-2037

E-mail: dmca@isc.upenn.edu

8. PRIVACY POLICY

For information about our data protection practices, please read our Privacy Policy at www.whartonwrds.com. You agree to the use of your data in accordance with our Privacy Policy.

9. **REGISTRATION**

This Web Site are available only those who register. Registrants must be eighteen (18) years of age or older. You agree that the registration information you provide is accurate, complete and current, and you further agree to promptly update that information to keep it accurate, complete and current.

Once you have registered, you will choose a user id and password. You are responsible for maintaining the confidentiality of your user id and password, and are responsible for all activities that occur using your user id and password, whether or not expressly authorized by you. We will not be responsible for any damages resulting from the unauthorized use of your user id or password. You agree to notify us immediately of any such unauthorized use or any other breach of security.

You agree that we may suspend or terminate your access to this website if you provide any information that is inaccurate, incomplete or not current, or we believe that such information is inaccurate, incomplete or not current, or you violate any of these Terms of Use.

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You are solely responsible for your interactions, both on-line and off-line, with other registrants of this Web Site, and with persons you meet through such registrants. You understand and acknowledge that we do not screen registrants, inquire into their backgrounds or attempt to verify the information they provide. In all interactions, whether on-line or off-line, with other registrants of this Web Site and with persons you meet through such registrants, you agree to take all precautions necessary to protect yourself, your property and your personal and financial information. IN NO EVENT SHALL WE BE LIABLE FOR AND YOU AGREE TO RELEASE US FROM LIABILITY FOR ANY DAMAGES WHATSOEVER, WHETHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE ARISING OUT OF OR RELATING TO YOUR USE OF THIS WEB SITE, INCLUDING WITHOUT LIMITATION, DAMAGE TO OR LOSS OF PROPERTY, EMOTIONAL DISTRESS, BODILY INJURY OR DEATH RESULTING FROM YOUR COMMUNICATIONS OR OTHER CONTACT, WHETHER ON-LINE OR OFF-LINE, WITH REGISTRANTS OF THIS WEB SITE, OR PERSONS YOU MEET THROUGH SUCH REGISTRANTS.

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Use of this Web Site is void where prohibited. You represent that you are of legal age to form a binding contract with us and are not barred from using this Web Site by the laws of the United States or the country in which you reside.

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We may terminate your right to access this Web Site at any time in our sole discretion, with or without cause, and without notice to you. Even after your use of this Web Site ends, Sections 2, 3, 4, 5, 6, 9, 10, 12, 13, and 14 shall remain in effect.

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1.5 Databases Available

Although WRDS provides access to a wide variety of databases, users are only given authorization to those to which their university subscribes. If you attempt to access a database to which your university does not subscribe, you will receive the following error message:

"User does not have appropriate authorization level for file."

Below is a list of the databases available for WRDS. Your access will depend on your school's licenses. For more information on data access and permissions, see the "My Datasets" link in the MY.WRDS section of our web site and peruse the "Data Lists" for the various subdivisions of data products and subscription levels.

Board Analyst

• Governance, compensation, performance practices

Bureau Van Dijk ©:

- Amadeus
- Bankscope
- Isis
- Osiris

Center for Research in Security Prices© (CRSP):

- NYSE/AMEX/NASDAQ Stocks
- Government Bonds
- Indices/Portfolio Assignments
- CRSP/Compustat Merged Database

CENTRIS:

- Household Survey
- Insights Reports

CISDM

• Hedge Funds, active CTAs, CPOs

Capital IQ's Compustat©:

- Industrial, Full Coverage and Research
- Canadian Industrial
- Business Industry Segments
- Business Geographic Segments
- Price, Dividends, and Earnings
- Bank
- Executive Compensation
- Unrestated Historical data
- Audit Fee

Capital IQ's Global©:

- Industrial/Commercial
- Financial Services
- Issues
- Currency

comScore:

Marketing

Eventus:

Event Study Software

First Call Historical Database

Analyst Estimates

Global Insight:

- DRI Basic Economics
- DRI International

GovPX, Inc.©:

• Treasury Bonds, Tick-by-Tick

GSI Online:

- Mergers and Acquisitions (M&A) Database
- Registrations and Prospectus Database

GTA-CSMAR:

• Accounting, Finance, Economic data for China

Institutional Brokers Estimate System© (I/B/E/S):

- Detail and Summary History
- Summary History

ISSM:

• Price and Volume data

IVES' AuditAnaytics:

Audit Fee

KLD

• Globally social investment research

Mergent FISD

- Fixed Income Securities Database
- Fixed Income Securities Database with NAIC data

NYSE Trade and Quote (TAQ):

Consolidated Trades and Quotes

OptionMetrics:

Ivy DB

The NASDAQ Stock Market, Inc. ©:

NASTRAQ

Rent Bureau:

• Rental History

RiskMetrics

- Takeover Defenses
- Directors Data
- Shareholder Proposal
- Voting Data

Sandra Ann Morsilli Pacific-Basin Capital Markets Research Center:

PACAP Databases

Thomson Reuters.©:

- Mutual Fund Holdings
- Institutional (13f) Holdings
- Insider

Access to the following databases is available to all subscribers at no charge:

- Bank Regulatory Database
- Blockholders
- CBOE Indexes
- DMEF Direct Marketing Educational Foundation
- Dow Jones
- Fama-French ("Research") Portfolios and Factors
- Federal Deposit Insurance Corporation (FDIC)
- Federal Reserve Bank reports
- IRI Marketing Factbook: Point of Sale (following permission from IRI. Contact WRDS)
- Penn World Tables
- Philadelphia Stock Exchange Options
- SEC Disclosure of Order Execution
- TRACE

1.6 Future Resources

To provide clients with an ever-expanding resource, we are continually negotiating with new vendors about adding a variety of datasets to WRDS. Please visit our electronic newsletter, <u>wrds.News</u>, for further information.

1.7 Accessing the Data

WRDS may be accessed either through a web interface or a UNIX login session. After January 28, 2003, users may no longer connect to WRDS using the telnet protocol. A Secure Shell ("SSH") program should be used instead. An account with username and password authorization is required to access WRDS using either method.

Web Interface:

To access WRDS via the Web, begin by pointing your browser http://wrds.wharton.upenn.edu. The WRDS web site serves our users in three ways. First, it offers the documentation and description of databases available. Each database is accompanied by a general description, various components of the database, descriptions of variables, and documentation. Second, users may access the database using the query forms. Users can search and download information using these pages by entering their own search criteria. Finally, users can submit an account request, a restore request, or technical questions with this access method.

SSH:

You may also make an SSH connection to wrds.wharton.upenn.edu with a WRDS-issued username and password. Once logged in, you will begin at your home directory.

The directory structure for the data is as follows:

- /wrds/crsp/
- /wrds/compustat/
- /wrds/fdic/ etc.

Each database directory contains subdirectories for the data files and sample programs.

- /wrds/crsp/sasdata
- /wrds/crsp/samples

Each database directory contains subdirectories. We have several documents that provide step-by-step instructions on how to SSH to WRDS and how to retrieve data with FORTRAN and SAS programs (see Section 3.2). They are in MS Word format and can be easily accessed.

WRDS Access Pass

WRDS Access Pass

IP Authenticated workstation/s are available within your institution's library or computer labs. These may only be accessed by valid Users (not the general public) at your institution.

When logging into WRDS, Users will be asked to enter an email account with your institution's domain. WRDS will then send an email message to that email account to verify that the account is valid. This email will contain an "Access Pass" link which the User can click on to get direct access into WRDS.

This is an ideal way for undergraduate students (who may not have access to WRDS via a class account and who do not qualify for an individual account) to utilize the system. Accessing the WRDS platform through this method does not provide disk storage or access to the WRDS computing cloud.

WRDS website URL for IP access is: http://wrds-web.wharton.upenn.edu/wrds/connect

End User Experience

The Librarians for each institution will consult with WRDS and receive a link for the range of IP-Authenticated computers. The user will open a web browser session and follow the initial steps to obtain an Access Pass. The WRDS

server will verify that the email address is valid for the institution (no gmail or hotmail, etc). Once validated, the user will receive an email with the Access Pass link.

Duration of Access Pass

The access pass can be set to last from 1 to 3 days per user, the default is one day. Please contact your WRDS Representatives with any questions.

What will WRDS do with this contact information?

WRDS will store the contact information with a record of each data query made during that session, just as it does for all WRDS Users with their own accounts. It will not be treated differently or protected in any way that is less secure than regular WRDS Users. Our privacy policy ensures that WRDS does not share personally identifiable information with any other entities. However, information maintained by WRDS may be disclosed in connection with any judicial proceeding.

Vendor Technical Support Information

2.1 Vendor Technical Contact Information

For data vendor technical support, please contact the data vendors that offer each set. Below are contacts and email addresses.

For subscriptions to the databases listed below, please contact your WRDS Representative.

Vendor	Support Phone Number	E-mail
Board Analyst	(703) 312-0990	sgabler@thecorporatelibrary.com
Bureau van Dijk	(212) 797-3557	Keith.Erzinger@bvdinfo.com
	(212) 797-3551	mark.bell@bvdinfo.com
Capital IQ's Compustat	(800) 525-8640 x4458	clientsupport@standardandpoors.com
CISDM	(413) 545-1062	laliberte@research.umass.edu
comScore	(312) 775-6513	bschiess@comscore.com
CRSP	(773) 834-1025	subscriptions@crsp.chicagobooth.edu
Eventus		http://support.eventstudy.com
First Call	(800) 347-7822	Tr.datafeedsglobal@thomsonreuters.com
Global.Insight (Includes DRI)	(781) 301-9084	bill.hughes@gihs.com
GovPX		icapinformationservices@icap.com
GSI Online	(800) 783-0312	westlawbusiness-info@thomsonreuters.com
GTA-CSMAR data	86-755-83948067	lib@gtadata.com
I/B/E/S	(800) 347-7822	Tr.datafeedsglobal@thomsonreuters.com

IRI		wrds-support@wharton.upenn.edu
ISSM	(860) 242-2099	rawood@pobox.com
IVES' AuditAnalytics	(508) 476-7007 x 28	thardy@ivesinc.com
KLD	(617) 426-5270 x 304	roneil@kld.com
Mergent FISD/NAIC		karen.peterson@mergent.com – technical questions sam.ellner@mergent.com – subscriptions
NASTRAQ	(800) 243-4284	
OptionMetrics	(212) 918-1861	pialamova@optionmetrics.com
PACAP	(401) 874-5105	pacapd@etal.uri.edu
RentBureau	(404) 418-8970	Brannan.Johnston@experian.com
RiskMetrics	(312) 829-1129	Joe.Henzlik@riskmetrics.com
TAQ		taqorders@nyse.com
Thomson Reuters 13f, DealScan, Insider, Mutual Funds	(888) 989-8373	Tr.datafeedsglobal@thomsonreuters.com

2.2 WRDS Representative

Name: Lucina Fraser

Email: lefraser@gwemail.ryerson.ca

Tel: 416-979-5000 ext. 6887

These are the responsibilities of your WRDS Representative:

- 1) Serve as a liaison between the WRDS staff and the faculty at the university. Any notices regarding system upgrades, the addition of new vendors, scheduled maintenance, etc. will be sent to you. Then, simply forward this information to the faculty and staff.
- 2) Monitor account requests by verifying that a requestor is indeed standing faculty, a Ph.D. student, or an authorized researcher/ administrator at the university. Whenever a user from your institution submits an account request, we will send you an email notification. Simply go to the URL indicated in the message and follow the instructions to approve the request. After we receive your approval, we will create the account and send the user an e-mail message with a special URL and instructions for setting the account password and logging into WRDS.
- 3) Disable accounts after Users leave your institution. Extend expiration dates on Ph.D., RA and Visitor accounts when necessary.
- 4) Notify department heads/chairs regarding WRDS administrative changes (i.e.: modification of WRDS fee structure, procedures, etc.).

2.3 WRDS Administration

For information concerning your subscription, details on upgrading your package, or the status on negotiations with future data providers, please send an e-mail to: wrds@wharton.upenn.edu or contact us at 215-898-9065.

Additional Help

3.1 Technical and Research Support

Our staff of technical and research specialists may be reached be reached via <u>WRDS Support</u>. They are available to assist you with difficulties pertaining to database access, data queries, and programming in SAS or C. If you request support related to a particular program which you are unable to execute successfully, **please copy the program into the body of your e-mail message for a quicker response**. This is helpful for detecting any errors in your program.

3.2 Electronic Resources

Additional resources are available from any WRDS web page by clicking on the "support" tab located at the top of your screen. You will find several listings:

- WRDS FAQ (Frequently Asked Questions): This resource contains the most detailed information on using our service including a system overview, data content and access, and extensive help on using SAS and FORTRAN programs to extract data.
- SAS FAQ: Compiled by one of our technical specialists, this is an excellent resource for users just getting started with SAS.
- Online Manuals: All electronic manuals published by our vendor providers (i.e. CRSP) are available under this link. If you do not see a particular manual you are interested in, please contact the vendor directly (see Vendor Contact information, Section 2.1) for a copy.
- **Downloads:** TCP script for connecting to WRDS via SAS/CONNECT.
- **Restore Request:** Electronic form to be submitted in the event output is lost (see Section 3.4)
- You may view the enhanced <u>Support page</u>, <u>Tools</u>, and On-Demand <u>E-Learning</u> videos through the available tabs on the website.

3.3 Changing Your Password

You may change your WRDS password by SSH or web access.

By SSH:

Step 1:

- SSH to wrds.wharton.upenn.edu
- At the system prompt, enter the following: **passwd**

Step 2:

• You will be prompted for your old password. Type in your current password and then press the Enter key.

Step 3:

• You will be asked for the new password. Type in a new password. Your password should be at least 6 characters long. On Unix systems passwords are case sensitive: lower-case and uppercase letters are different. To avoid problems, it's a good idea to use only lower-case letters and numbers. The password does not appear on the screen when you type it.

Step 4:

• To ensure you typed your new password correctly, you are asked to enter it again. Type in your new password again. If you typed the same password both times, the system returns to the system prompt. From now on, use this password to log on to this system. If you make a mistake typing your password, you'll receive an error message, and the system will not change your password. If this happens, repeat Steps 2 through 4.

By WEB:

Go to our Password Problems page and follow the instructions.

3.4 Lost Password

Go to our **Password Problems** page and follow the instructions.

If you have any further questions, please contact us via WRDS Support.

3.5 Lost Output

In this event, please submit a **Restore Request**, available under the Support tab. Please allow one business day for processing.

4. WRDS@WHARTON

Our staff of technical and research specialists may be reached via WRDS Support.

They are available to assist you with difficulties pertaining to database access, data queries, and programming in SAS, FORTRAN, or C. If you request support related to a particular program, which you are unable to execute successfully, please copy the program into the body of your e-mail for a quicker response. This is helpful for detecting any errors in your program.

We hope you enjoy your new WRDS accounts. We are confident that you will find the ease of access, abundance of data, and unique system features such as downloading your information to an MS Excel spreadsheet, Advanced Query capabilities, and e-mail notification feature a significant benefit to your research and teaching endeavors.