



Getting Started with Wharton Research Data Services

<http://wrds.wharton.upenn.edu>

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WELCOME TO WHARTON RESEARCH DATA SERVICES

Wharton Research Data Services (WRDS) is the leading data research platform and business intelligence tool used for over 30,000 academic, government, non-profit institutions, and corporate clients in 31 countries. WRDS provides the user with one location to access over 200 terabytes of data across multiple disciplines including Finance, Marketing, and Economics. 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 including:

Stanford University Harvard University University of Chicago
London Business School Massachusetts Institute of Technology and more

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.

ACCESS OPTIONS

WRDS provides a common interface to a variety of databases in order to make the process of extracting data more simple for you and help you focus on what's important – your research.

WRDS offers 3 ways of accessing data: **On our website** using form-based queries, through a **UNIX terminal** session, or using PC-SAS **on your desktop computer**. Each method has its own benefits and strengths. Let's take a look.

HOW TO ACCESS THE DATA

BROWSER-BASED ACCESS

All you need is a web browser and Internet access to query data from WRDS. No software to install, no specific programming language to learn. After you've decided on which dataset to use, you can use our web-based query form to extract and output data in the format of your choice.

- **Simple, powerful queries** with a few clicks.
- Download up to **2GB of data** per query.
- **Export** into the format of your choice.
- **Import** into popular programs with ease.

Each dataset on WRDS includes a description of what's included as well as links to the pages for each query. The web-based version of WRDS is designed to work with any modern browser.

Our web queries have the same general format for all databases in WRDS. In almost all cases, you need to complete four steps.

COMMAND LINE ACCESS

If web queries cannot provide the flexibility or capability you require, you may want to consider accessing WRDS through the command line interface (CLI).

- **Run customized programs** with several sources at once.

- **750MB of disk space** in your own directory.
- Access up to **2TB of temporary disk space** to process programs.

By using a **Secure Shell Client (SSH)** and a **terminal application to log onto WRDS**, you'll be able to securely accessing WRDS data and program in SAS, FORTRAN or C—no license required.

[After you've checked to see if your account offers access to WRDS via Unix](#), you'll need to log into the system using SSH. It's important to know that this method requires knowledge of Unix commands, as well as an understanding of programming languages.

INTERACTIVE APPLICATIONS

Do you need more computing power than the command line? Perhaps it's time to upgrade to a dedicated desktop application.

- A **desktop-based** graphical user interface (GUI) using select programming languages.
- All the **perks** of the CLI without needing to use commands.
- **Quickly** edit, debug, log, and output programs.

WRDS works with [PC-SAS](#), [R](#), [Matlab](#), and [STATA](#). These are standalone applications that allow users to access, manage, analyze, and present data. When combined with the data available on WRDS, it allows users to undertake research-intensive tasks using powerful, specialized programs.

SERVICES

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

- **Support from a team of Ph.D., data, and technical specialists** are available to you on-line through [WRDS Support](#).
- [Classroom Tools](#) Instructors can use Classroom Tools by WRDS as a core component of their curriculum, as stand-alone lessons, or as assignments. This is also a helpful place to our Introduction to WRDS guides which can be a helpful resource as you familiarize yourself with WRDS.
- [Analytic Tools](#) Analytics tools are designed to improve efficiency, enabling researchers to tap into different data sources and research areas without having to create sophisticated programs. Results are presented graphically and include the underlying data for further analysis and exploration.
- [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**. Working with multiple vendors, we provide the broadest collection of data and most robust computing infrastructure to give users the power to analyze complex information at speeds of up to 400MB per second. We provide a reliable infrastructure with professionals managing the process of uploading and updating the data on state-of-the art systems.

ACCOUNTS

All full-time faculty, staff, and students at a subscribing institution 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 your local WRDS Representative. Alumni members, research colleagues, and other persons not actively employed or registered with your organization do not qualify for an account.

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 [WRDS Support](#) with any questions.

APPLYING FOR AN ACCOUNT

Step 1: Point your web browser to <http://wrds.wharton.upenn.edu>

Step 2: Click on the link for "[Register for a WRDS Account](#)".

Step 3: Fill out the form.

Step 4: Click "Submit".

The local WRDS representatives will review your request and notify you when it has been processed.

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 *not to be shared with any other individual*.

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 *not to be shared 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 *not to be shared with any other individual*.

Masters / Undergrad 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 *not to be shared with any other individual*.

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 must 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.

WRDS TERMS OF USE

All users must agree to the [WRDS Terms of Use](#) which are available on our website from the [About](#) tab of the WRDS website.

DATABASE SUBSCRIPTIONS

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."

Your access will depend on your school's licenses. For more information on data access and permissions, see the "[Products](#)" link in the MyWRDS section of our web site.

A description of each database is available [here](#).

WRDS ACCESS PASS

IP Authenticated workstation/s can be made 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 use 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 CONTACT INFORMATION

For data vendor technical support, please contact the data vendors that offer each set. You will find contacts and email addresses for all of our vendors on our website under the Support tab link for [Vendor Support & Contact](#).

For subscriptions to the databases listed below, please contact your WRDS Representatives. Their contact information is available below and from the MyWRDS tab on the WRDS website.

WRDS REPRESENTATIVE

Your WRDS representatives are responsible for the following:

1. Serve as a liaison between the WRDS students, faculty, and staff at the university. They will send you any notices regarding system upgrades, the addition of new vendors, scheduled maintenance, etc.
2. Monitor account requests by verifying that a requestor is standing faculty, a Ph.D. or Masters student, an authorized researcher, or an administrator at the university.
3. Disable accounts as needed for people who leave the University but do not need to have their accounts transferred. Extend expiration dates on Ph.D., RA and other accounts when necessary.
4. Notify department heads/chairs regarding WRDS administrative changes (i.e.: modification of WRDS fee structure, procedures, etc.).

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: wrd@wharton.upenn.edu or contact us at 215-898-9065.

ADDITIONAL HELP

TECHNICAL AND RESEARCH SUPPORT

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 or R. 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.

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 other 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.

CHANGE PASSWORD

Go to our [Password Problems](#) page and follow the instructions.

WRDS SUPPORT

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, R and other programs.

If you are having trouble executing a particular program, please copy the text of 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 access to WRDS. We are confident that you will find the ease of access, abundance of data, and unique system features a significant benefit to your research and teaching endeavors.