



HCUP CENTRAL DISTRIBUTOR USER GUIDE

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To access the Central Distributor Online Reporting System, see:

<https://cdors.ahrq.gov/>

For Assistance with Purchasing Data and Agreements, contact HCUP-RequestData@ahrq.gov

For Technical Assistance with Using Data, contact HCUP-User Support at HCUP@ahrq.gov

Before You Submit a Data Purchase Request

Know the HCUP Databases You Need for Research

AHRQ offers Healthcare Cost and Utilization Project (HCUP) [Nationwide Databases](#) and [State Databases](#) for purchase for research, analytics and aggregate statistical analyses. HCUP databases are available for purchase online through the [HCUP Central Distributor Online Reporting System](#) by applicants who complete the [HCUP Data Use Agreement \(DUA\) Training](#) and sign an HCUP DUA.

HCUP includes five (5) [Nationwide Databases](#):

- National Inpatient Sample (NIS)
- Kids' Inpatient Database (KID)
- Nationwide Readmission Database (NRD)
- Nationwide Emergency Department Sample (NEDS)
- Nationwide Ambulatory Surgery Sample (NASS)

HCUP includes three (3) [State Databases](#):

- State Inpatient Database (SID)
- State Emergency Department Database (SEDD)
- State Ambulatory Surgery and Services Database (SASD)

HCUP also releases [Supplemental files](#), which are hospital-level or discharge-level files that augment the information contained in the HCUP Nationwide and State databases. Refer to the HCUP Supplemental Files section of the [Research Tools](#) page for detailed information about the types of supplemental files available.

HCUP Supplemental Files for use with Nationwide include:

- [Cost-to-Charge Ratio \(CCR\) Files](#)*
- [Hospital Market Structure \(HMS\) Files](#)*
- [NIS-Trend Weights Files](#) (1993-2011)**
- [NIS Hospital Ownership Files](#) (1998-2007)**
- [NIS 1993-2002 Discharge-Level Supplemental Files](#) (1993-2002)*
- [KID-Trend File](#) (1997)**

HCUP Supplemental Files for use with State databases include:

- [American Hospital Association \(AHA\) Linkage Files](#)** (see special requirements for IA, MN, and NE)
- [Cost-to-Charge Ratio \(CCR\) Files](#)*
- [Supplemental Variables for Revisit Analyses](#)***
- [Hospital Market Structure \(HMS\) Files](#)*

*Available through the [HCUP Central Distributor Online Reporting System](#)

**Available for download on HCUP-US

*** Recent years included in core database files with purchase; older years (2003-2008) available through the [HCUP Central Distributor Online Reporting System](#)

The following Supplemental files are frequently used by researchers, and require a little more explanation:

- HCUP [Cost-to-Charge Ratio \(CCR\) Files](#): hospital-level files designed to supplement the data elements in the Nationwide (NIS, KID, NEDS, NRD) and State (SID and SEDD) databases. The **Nationwide databases (NIS, KID, NEDS, or NRD) come with the complimentary CCR Supplemental file** applicable to that database. **The CCR files for the SID or SEDD must be ordered separately.**

The [CCR Files](#) are linkable files developed by AHRQ that enable the conversion of total charges (defined as the amount a hospital billed for services) into how much the hospital services actually cost. Cost information was obtained from the hospital accounting reports in the Healthcare Cost Report Information System (HCRIS) files collected by the Centers for Medicare & Medicaid Services (CMS). Some imputations for missing values were necessary. The CCR Files are hospital-level files designed to supplement the data elements in HCUP inpatient and emergency department databases.

Each CCR File contains hospital-specific cost-to-charge ratios based on all-payer inpatient or emergency department cost for nearly every hospital in the corresponding database. The CCR Files are updated annually for the SID, NIS, and NRD and every 3 years for the KID beginning with 2001 data and the SEDD and NEDS beginning with 2012 data.

The CCR Files can be linked to records in the HCUP databases using the HCUP hospital identification number, which is a unique hospital number exclusive to the HCUP data. The name of the data element representing the hospital identification number varies by database and data year.

For Nationwide database CCR Files (CCR-NIS, CCR-KID, CCR-NRD, and CCR-NEDS), the CCR records can be merged directly with the records in the corresponding database using the database's hospital identification number (HOSP_NIS, HOSP_KID, HOSP_NRD, and HOSP_ED, respectively).

For States that release an HCUP AHA Linkage File, linkage between the CCR File and the SID or SEDD is achieved in two steps. First by linking records from the CCR for SID or SEDD file to the HCUP AHA Linkage File by the data element HOSPID. For Iowa, Minnesota, and Nebraska, this linkage is achieved using the data element KEY. Second, by linking the resulting file to the SID or SEDD by State (data element Z013) and data element DSHOSPID.

For States that do not release an HCUP AHA Linkage File, HOSPID is included directly on their SID or SEDD file. For these States, the data elements from the CCR File can be merged onto the SID or SEDD by HOSPID.

- [HCUP AHA Linkage Files](#): The files are used to supplement the HCUP State databases (SID, SEDD, and SASD) with hospital-level information from the AHA Annual Survey Databases. The AHA Annual Survey Databases are purchased separately from the [American Hospital Association](#). The HCUP AHA Linkage Files allow for richer empirical analysis especially where hospital characteristics may be important factors. They include the hospital identifier used on the AHA Annual Survey Databases and the HCUP hospital identifier for those HCUP Partner States that release hospital identifiers.

The HCUP AHA Linkage Files can be linked to the HCUP SID, SASD, and SEDD Core Files using the HCUP data source hospital identification number (data element DSHOSPID). Then, subsequently, users can

merge the data elements of interest from the AHA Annual Survey Databases to the HCUP AHA Linkage Files using the AHA hospital identifier (data element AHAID).

The HCUP AHA Linkage Files are **available for download** from HCUP-US for the HCUP Central Distributor SID, SASD, and SEDD beginning with 2006 data, [with the exception of AHA Linkage Files for Iowa, Minnesota, and Nebraska](#). The AHA Linkage Files are updated annually. The HCUP AHA Linkage Files prior to 2006 were included on the data DVDs provided with purchase. Please note that not all HCUP Partner States release hospital identifiers.

- The [HCUP Supplemental Variables for Revisit Analyses](#), or revisit variables, are additional variables that were developed by AHRQ. They facilitate analyses to track patients across time and hospital settings exclusively in the State databases (SID, SASD, and SEDD) while adhering to strict privacy guidelines.

There are two HCUP supplemental variables:

- Synthetic person-level identifiers that have been verified against the patient's date of birth and gender and examined for completeness (HCUP variable VisitLink).
- A timing variable that can be used to determine the days between hospital events for an individual without the use of actual dates (admission, discharge or birth) (HCUP variable DaysToEvent).

Beginning with 2009 data, the Revisit Variables are included in the Core file of the SID, SASD, and SEDD databases for select States that are purchased through the HCUP Central Distributor. For 2003-2008 data, the Revisit Variables are provided free of charge as a separate file with the applicable State databases.

Appendix A of the [HCUP Supplemental Variables for Revisit Analyses User Guide](#) provides a detailed list of which States, years, and types of data are available.

Please note, it is possible that over time, some HCUP Partners will modify the encryption routines used for their synthetic patient linkage numbers. If this occurs, there will be a one-time disruption in the ability to track a patient over time. For more information, review Appendix C of the [HCUP Supplemental Variables for Revisit Analyses User Guide](#) to determine the consistency of VisitLink over time.

Database Catalog - Know the Cost and Size of HCUP Databases

Availability and Pricing Information

Complete database availability and pricing information is provided in the HCUP Central Distributor Database Catalogs posted on the [HCUP-US Request Data](#) page. Please see the [Database Catalog](#) for Nationwide databases currently available in the [HCUP Central Distributor Online Reporting System](#). *Note: Currently, the [HCUP Central Distributor Online Reporting System](#) only accepts credit card purchases of Nationwide databases (and complimentary Supplemental Files).*

The HCUP Nationwide databases (NIS, KID, NASS, NEDS, and NRD) are offered at a discounted price for students. In addition, several States offer student prices for their HCUP State databases (SID, SASD, and SEDD). Part-time and full-time students currently enrolled in a degree-seeking program at an institution of higher learning at any stage in their training are eligible for the published student prices on HCUP data purchased for the student's exclusive use.

The HCUP State Databases (SID, SEDD, SASD) are provided by participating data organizations. These organizations set the price of their State data. Some data organizations offer reduced pricing for AHRQ grantees, students, and/or non-profit organizations. Refer to the HCUP State Databases Catalog on [HCUP-US Request Data](#) page for pricing. If your order is based on these pricing categories, you may be asked to provide documentation of affiliation or AHRQ grantee status before your order may be fulfilled.

Supplemental files are available to HCUP data users free of charge and may be accessed through the [HCUP Central Distributor Online Reporting System](#) or downloaded from HCUP-US. See [Know the HCUP Databases You Need for Research](#) for further details.

Processing fees and shipping costs are included in the price of the databases. Customs and other duty charges for international delivery are not included. The HCUP Central Distributor does not calculate or collect duties or international taxes.

Size of Nationwide databases

The size of each Nationwide database file varies by type of database and year. Nationwide databases range from 3 GB to 20 GB in the unzipped format. The KID and NASS are ~3 GB, the NIS is ~12 GB and the NEDS and NRD are ~20 GB.

Size of State databases

The size of each State database file varies by State, type of file, and year. More information on the size of the databases in the unzipped format is available on the HCUP-US [Database Documentation](#) page.

- [SID database sizes](#)
- [SASD database sizes](#)
- [SEDD database sizes](#)

Know the Equipment and Software Required to Access the Data

DVD Drive

HCUP State databases are shipped on DVDs. You will need a DVD drive to access the files.

Unzipping utilities to access the data

HCUP databases use a process that compresses and encrypts the files into a password-protected file (in either zip or exe format) which only can be extracted or unzipped using a third-party zip utility such as SecureZIP®, 7-zip, ZIP Reader, WinZip™, SecureZIP® for Mac, StuffIt Expander®, or Keka. Attempts to extract files using the built-in zip utilities in Windows® (Windows Explorer) or Mac (Archive Utility) will produce an error message warning of incorrect password and/or corrupted file or folder errors. Please note that passwords are case-sensitive.

Third-party zip utilities are available from the following reputable vendors on their official websites.

- ZIP Reader (Windows) (free download offered by PKWARE®, Inc.)
- SecureZIP® and SecureZIP for Mac (free evaluation and licensed/fee software offered by PKWARE, Inc.)
- WinZip (Windows) (evaluation and fee versions offered by the WinZip corporation)

- Stuffit Expander® (Mac) (free evaluation and licensed/fee software offered by Smith Micro corporation)
- 7-Zip (Windows) (free download offered by the 7-Zip organization)
- Keka (Mac) (free download through Mac App Store)

Note: encryption software and operating system utilities are evolving rapidly. Older versions of zip software may not be effective with newer operating systems, and vice versa. In particular, newer versions of Mac may experience difficulties with any utility other than SecureZip for Mac.

Statistical software to process the data

Additionally, you will need SAS®, SPSS®, Stata®, or similar analysis software for processing the data, and all such processing requires *several times as much disk capacity as the core file* to perform typical processing steps. Because of variations in processing methods, analysis software varies greatly in how much disk space will be required. The amount of disk space required by your project will depend on which analysis software you are using, which database is involved, and the number of elements you use from the database.

Software programs to convert ASCII files are provided for each specific database on the HCUP-US. Please see the [Database Information](#) page for additional details.

Understand the Privacy and Security of the Data

Each request for publicly accessible restricted access databases requires taking [HCUP Data Use Agreement \(DUA\) Training](#) and signing an HCUP DUA. Protecting the privacy and security of individuals and institutions and safe handling of the data is critical to the success of HCUP.

- HCUP Data Use Agreement for the Nationwide Databases ([PDF file](#), 260 KB; [HTML](#))
- HCUP Data Use Agreement for the State Databases ([PDF file](#), 251 KB; [HTML](#))
- HCUP Responsibilities of the Data Purchaser ([PDF file](#), 107 KB; [HTML](#))

All users of HCUP data **must** agree to the terms of the HCUP Data Use Agreement (DUA). Being a data purchaser carries additional responsibilities to which you must agree.

Unless otherwise designated and agreed upon by AHRQ, the data purchaser is considered the "Data Custodian" of HCUP data. The Data Custodian is responsible for ensuring that the HCUP data are kept secured, that only authorized users have access to the data, and that HCUP data are used in a way that is consistent with the DUA.

The Data Custodian is responsible for verifying proof of DUA training and signed HCUP DUAs from anyone who has access to the data or output that contains small cell sizes, individual records, or identifies hospitals. Training completion certificates and DUAs must be submitted to the HCUP Central Distributor before access is granted to these individuals.

The Data Custodian is held accountable for the proper use of the HCUP data that they have purchased, even by other individuals to whom they have given access. As a result, the Data Custodian is also responsible for any possible misuse of the data (unintended or otherwise) along with the data user.

The Nationwide and State Data Use Agreements define the rules and limitations under which any HCUP data may be used; a DUA is required for every person with access to the data regardless of the nature of the project. The DUA was developed based on the agreements that AHRQ holds with each of the HCUP State Partners. As a result, HCUP does not make modifications to the DUAs.

Accessing and Purchasing HCUP Data

Overview

Many of the HCUP databases are available for purchase online through the [HCUP Central Distributor Online Reporting System](#). Statistics and data tables from HCUP's Nationwide and select State databases can be obtained from [HCUPnet](#), a free, online query system. Statistics and data tables on select topics are also available through [HCUP Fast Stats](#) and [HCUP Summary Trend Tables](#).

HCUP is a voluntary partnership between the Federal government and State data organizations ([HCUP Partners](#)). Each Partner determines how its data are used in HCUP; thus, not all States participate in the HCUP Central Distributor, [HCUPnet](#), and/or Fast Stats.

Steps to Submitting an Application to Purchase HCUP Data

1. Register for a User Account on the [HCUP Central Distributor Online Reporting System](#).
 - a. New users can register for a User Account on the [HCUP Central Distributor Online Reporting System](#), including submitting the certificate number from the required [HCUP DUA Training](#) and the completion date of training.
 - b. If you already have a User Account, your Username is most likely your email address. If your email is not your Username, click on Forgot Password or Username, type in the email address used previously in the online system in the Request a Username recover box, and you will receive an email with your Username. Once you have established your Username, you will need to reset your password and confirm and/or update your User information in the system, , including submitting the certificate number from the required [HCUP DUA Training](#) and the completion date of training.
 - c. Please note that passwords are case-sensitive.
2. Select the data you wish to purchase from the [HCUP Central Distributor Online Reporting System](#). See [Database Catalog](#). **Nationwide and State database purchases must be in separate orders.** Be sure to also observe the special requirements regarding the purchase of California and Georgia databases; and the access to the AHA Linkage Files for Iowa, Minnesota, and Nebraska.
3. Read and confirm the Data Use Agreements, Responsibility of Data Purchaser, and Indemnification Clause. See [Data Use Info & Agreements](#).
4. For the purchase of State databases, complete [Statement of Intended Use](#) (PDF file, 45 KB).
5. Complete Applicant Information as it relates to the specific data purchase, including billing and shipping (for State orders only) information.
6. Pay for the databases.
7. Nationwide databases will be available to download from [My Account](#) in the [HCUP Central Distributor Online Reporting System](#). State databases will be shipped on DVDs via the United State Postal Service (USPS) (tracked and requiring an adult signature).

Statement of Intended Use for State Databases

A [Statement of Intended Use](#) (PDF file, 45 KB) is required, if you requested SID, SASD, and/or SEDD files from the HCUP Central Distributor. AHRQ and the HCUP Central Distributor Team facilitate access to the State-level HCUP data (i.e., SID, SASD and SEDD), which are owned and regulated by the individual Data Organizations participating in HCUP. Under AHRQ's agreements with these Data Organizations, AHRQ reviews and approves all intended uses of the State-level data on behalf of the [HCUP Partners](#). In some cases, the HCUP Partners also review the Statement of Intended Use before approval is granted, and in all cases, orders that include State databases are provided in full to the respective data organizations. The AHRQ reviewers will place your application on hold and request clarification from you if your Statement of Intended Use is insufficient for review and approval.

The Statement of Intended Use defines your specific project plans. It should include enough information for reviewers to understand the subject area of interest, how the data will be used, level of analysis, intended audiences, and anticipated end products (e.g., tables and charts, internal reports, peer-reviewed journal articles), as well as to demonstrate understanding of and compliance with the HCUP Data Use Agreement (DUA).

Special Requirements for Some State Databases

California

The purchase of California databases comes with special eligibility requirements and other restrictions beginning with data year 2018, as defined in the Additional Requirements from the State of California ([PDF file](#), 112 KB; [HTML](#)). Applicants must be academic researchers employed by a college or University located in the United States or a US territory whose project has undergone review by their academic institution's Institutional Review Board (IRB). In addition, the data has a "single-use" project requirement:

- The data may *only* be used for the project described in the application. This project must have undergone review by your academic institution's Institutional Review Board (IRB) prior to application submission.
- The approved use of these files expires three years after the order was submitted. At the end of the three years, you will be required to certify the destruction of the databases or obtain an extension from the HCAI. Please refer to the Additional Requirements from the State of California document for details and contact information for the HCAI.

Note: California files must be ordered separately to facilitate collection of the acknowledged Additional Requirements document and management of the "Single Use" file expiration.

Further limitations on the project and intended use apply; refer to the Additional Requirements from the State of California for the full terms. For questions about these California-specific data use restrictions, please contact DataandReports@HCAI.CA.gov.

Georgia

Georgia data are **not available for purchase by for-profit entities or by students**.

Following AHRQ review of all applications that include any Georgia database, the application is forwarded to the Georgia Hospital Association for review. **The Georgia Hospital Association reviews and must approve any request for GA HCUP files.** AHRQ cannot guarantee the timeliness of responses from outside organizations. Further, the HCUP Central Distributor cannot partially fill or split orders, so if your order includes GA data, your entire order will be put on hold until the GA Partner provides guidance to AHRQ. If your project involves data from additional States and is particularly large or time-sensitive, we recommend that you submit a separate order for the GA files.

AHA Linkage Files for Iowa, Minnesota, and Nebraska:

HCUP Partners control the availability of American Hospital Association (AHA) Linkage Files for their State data. **Iowa, Minnesota, and Nebraska restrict the distribution of AHA Linkage Files to purchasers whose organizational affiliation and intended use meet the Partner's eligibility criteria.** To be eligible to receive these files with your order, your primary organizational affiliation must be college/university/government and your intended use of the data may NOT involve product development, market research, or commercial applications.

The AHA Linkage Files for Iowa, Minnesota, and Nebraska are provided by special request to certain approved purchasers whose use of the data is consistent with the Partner organization's requirements.

The Iowa, Minnesota, and Nebraska special request AHA Linkage Files are constructed using discharge records rather than hospitals as the unit, and there is a match for every record in the data file. For these three States, the AHA Linkage Files can be linked directly to the SID, SASD, and SEDD Core Files using the HCUP record identifier (data element KEY).

If you are eligible for these AHA linkage files and your organizational affiliation is correctly identified in your user account profile in the [HCUP Central Distributor](#), the available AHA Linkage Files will be included with your State database order for Iowa, Minnesota, and/or Nebraska. If you did not receive these AHA Linkage files with your order and believe you meet the eligibility criteria, [contact the HCUP Central Distributor](#).

All other available AHA Linkage Files for all other State databases are downloaded from the [AHA Linkage Files](#) page.

Student-Priced Data Requirements and Restrictions

HCUP data purchased at student pricing may only be used for projects led by the student purchaser. To be eligible for student pricing, the purchaser must provide proof of current enrollment in a degree-seeking program at an institution of higher learning. Student-priced data may not be used by or transferred to another individual for any other projects. Student-priced data may be retained by the student purchaser for personal use on other projects upon leaving their current institution, but the data may not be left with any entity or institution.

Student-priced State-level data may be used by the student purchaser for other projects as long as the standard re-use request process is followed. The student purchaser must be the lead on any data re-use project requested.



To be eligible for student pricing, students must provide proof of current enrollment in a degree-seeking program or as a medical resident in a degree-seeking program at an institution of higher learning.


- Acceptable forms of proof include documents that demonstrate current enrollment dates, institution, and student name (e.g., letter from professor advisor, registrar's office, or program director).
- **Please DO NOT SUBMIT any sensitive personal information (e.g., student account number, SSN, birthdate, student photo, etc.). Personal information must be masked or redacted prior to sending.** The system has not been approved to take this kind of information.

Payment Methods

The [HCUP Central Distributor Online Reporting System](#) accepts payments by American Express®, Discover®, MasterCard®, and Visa® credit cards issued by US banks. Databases will not be shipped or activated for download until payment is received and processed. Detailed payment instructions will be included in your order status emails, if applicable.

The vendor that processes payments for the HCUP Central Distributor is NORC at the University of Chicago. When payments are completed, the credit card charge will list NORC as the merchant. You may obtain your full order invoice with detailed vendor information by logging in to the [HCUP Central Distributor Online Reporting System](#) and viewing the order details under [My Account](#) > Orders.

The [HCUP Central Distributor Online Reporting System](#) does not retain credit card information; only the card authorization is saved. [Authorize.net](#)  is used as the payment gateway for processing credit card transactions. Authorize.net is on Visa's Global Registry of Payment Card Industry Data Security Standard (PCI DSS) [Validated Service Providers](#).  For credit card processing, only the Transaction ID and Authorization Code from Authorize.net are stored.

Future versions of the [HCUP Central Distributor Online Reporting System](#) will be able to accept ACH payment through [Authorize.net](#),  as well as purchase orders and wire transfers.

Receiving and Using HCUP Data

Timing of Receipt of Databases

HCUP Nationwide databases (NIS, KID, NASS, NEDS, and NRD) and related supplemental files are available via digital download after payment confirmation, typically within hours but may take 1-2 days in the system.

HCUP State databases are delivered on a DVD and sent via the United States Postal Service (USPS) within 2-3 weeks of purchase.

Method of Shipment of Databases

Nationwide databases and related Supplemental Files

HCUP Nationwide databases (NIS, KID, NASS, NEDS, and NRD) and related supplemental files are delivered in compressed, password-encrypted "zip" or "exe" format via digital download. Each product's zip or exe file is

downloaded from the [HCUP Central Distributor Online Reporting System](#) under [My Account](#) > Orders > Database Downloads, after you are notified that your products have been activated for download. The site uses secure socket layer (SSL) protocol; therefore, as long as you are using a secure network at work or home to log in, the download is secure. You will receive detailed instructions, including passwords, via email. Please note that passwords are case-sensitive. Please be aware that download links are active for only seven (7) days and are limited to three (3) download attempts. Please make every effort to seek assistance before your download link expires.

If your download link has expired, or you have received an error message indicating there was a problem with the download, or you have experienced any other problem preventing you from successfully downloading your products, please contact HCUP-RequestData@ahrq.gov for assistance in identifying and resolving the problem.

Downloading Information: The length of time to download the Nationwide databases can vary. Download performance depends on several highly variable factors including the following: 1) internet connection speed and bandwidth, 2) global and regional internet traffic demand at the time of your download, and 3) other users' demand on your network or internet service provider (ISP) resources at the time of your download.

For optimal download performance, try to control the following variables to the extent possible:

- **Use a wired connection** (e.g., Ethernet cable) if possible. Wired is much faster than wireless on the same network/internet service.
- **Avoid 'sleep' mode:** Make sure your computer is not set to go to sleep. The download will be paused if your computer goes to sleep but can be resumed upon waking.
- **Use times of low demand** on your network or local internet service provider (e.g., at work, try the download in the evening; at home, avoid evenings when other users of your ISP are likely to be online).
- Avoid high-demand sites or activities on your computer during the download.
- **Avoid Virtual Private Networks (VPNs):** If you use a VPN to connect to a secure work environment but could connect to the [HCUP Central Distributor Online Reporting System](#) directly (using a secure private/home or work network) while the VPN is not running, please do so. VPNs significantly slow download speeds.

You can check your internet connection speed/bandwidth at a given point in time using a site such Google's speed test at: <https://www.google.com/search?q=download+speed>. Typical benchmarks are as follows: Wired, no VPN (26 MB per second), Wireless, no VPN (18 MB per second), VPN, wired or wireless (3 MB per second).

State databases and related Supplemental Files

HCUP State databases (SID, SEDD, and SASD) and related supplemental files are delivered in compressed, password-encrypted "zip" or "exe" format on a DVD and sent via the United States Postal Service (USPS) to the shipping address specified in the application to purchase data. For security reasons, the packages are tracked, and require an adult signature. The HCUP data may only be delivered to the data purchaser who also signed the HCUP Data Use Agreement that accompanied the data order.

Unzipping Files

HCUP databases use a process that compresses and encrypts the files into a password-protected file (in either zip or exe format) which only can be extracted or unzipped using a third-party zip utility such as SecureZIP®, 7-zip, ZIP Reader, WinZip™, SecureZIP® for Mac, Stuffit Expander®, or Keka. Attempts to extract files using the

built-in zip utilities in Windows® (Windows Explorer) or Mac (Archive Utility) will produce an error message warning of incorrect password and/or corrupted file or folder errors. **Remember that passwords are case sensitive.**

Note for Nationwide databases: There are two layers of compression for the database. The outer layer compresses all content of the database related files into one package, which is what you download from the website. This package includes uncompressed documents like user guide and the database files that are compressed.

Third-party zip utilities are available from the following reputable vendors on their official websites.

- ZIP Reader (Windows) (free download offered by PKWARE®, Inc.)
- SecureZIP® and SecureZIP for Mac (free evaluation and licensed/fee software offered by PKWARE, Inc.)
- WinZip (Windows) (evaluation and fee versions offered by the WinZip corporation)
- Stuffit Expander® (Mac) (free evaluation and licensed/fee software offered by Smith Micro corporation)
- 7-Zip (Windows) (free download offered by the 7-Zip organization)
- Keka (Mac) (free download through Mac App Store)

Steps for unzipping on Windows (using 7-Zip as an example)

1. Right click the package (the downloaded zip file), choose 7-Zip and then choose Extract to “the package name”, such as NRD_2019.
2. You will be prompted to enter password. Enter the password.
3. The extraction starts after the password is verified.
4. The extracted files will be saved to a folder named “the name of the package”, e.g. NRD_2019.
5. Browse into this folder and you will see several zip files. They each needs to be unzipped separately, one by one. Unzip each in the same way above.

Note: on Windows computer, using the File Explorer you may be able to browse what is inside the package but that is not unzipping the package. It will not work if you try to unzip the zip files inside the package from the File Explorer.

Steps for unzipping on Mac (using Keka as an example):

1. Right click the package and choose Open With, then choose Keka.
2. Enter the password at the prompt. The extract will start if the password is verified. By the default the extracted files will be stored in a folder that is named with the package name, e.g. NRD_2019.
3. Browse the extract folder and continue to unzip all the zip files inside the folder, one by one, the same way. Note: password may not be required at this step.

Encryption software and operating system utilities are evolving rapidly. Older versions of zip software may not be effective with newer operating systems, and vice versa. In particular, newer versions of Mac may experience difficulties with any utility other than SecureZip for Mac.

Nationwide databases

The size of each purchased file varies. The compressed database files range from 300 MB to 2 GB when downloaded, as shown in the table below.

Each Nationwide database product you download will contain several files when unzipped, including the core database file in comma-delimited or ascii format, additional database files such as hospital or severity files, and support files such as database documentation. The amount of space required to unzip each database product is shown in the table below, based on the largest year of data for each database type.

Database	Download (Zip) Size	Unzipped Size
NIS	800 MB	12 GB
KID	300 MB	3 GB
NASS	330 MB	3 GB
NEDS	2 GB	20 GB
NRD	2 GB	20 GB

Please note that you will need SAS®, SPSS®, Stata®, or similar analysis software for processing the data, and all such processing requires *several times as much disk capacity as the core file* to perform typical processing steps. Because of variations in processing methods, analysis software varies greatly in how much disk space will be required. The amount of disk space required by your project will depend on which analysis software you are using, which database is involved, and the number of elements you use from the database.

To determine minimum data analysis space requirements, please refer to the documentation for each specific database you will be using. Database documentation can be found on the [Database Information](#) page of the HCUP-US website.

State databases

The size of each purchased file varies. The compressed State database files range from 5 KB to 1,950 MB, as shown in the table below. The unzipped size of each State database file varies by State, type of file, and year ([SID database sizes](#), [SEDD database sizes](#), [SASD database sizes](#)). More information on the databases is available on the HCUP-US [Database Documentation](#) page.

Troubleshooting Password Issues

If you are receiving a password error, first, please be sure you are using the correct password for the specific database by referring to the email that you received along with the purchase of the data. **Note that passwords are case sensitive.**

When your order for HCUP Nationwide databases is activated for download, or your HCUP State database products are shipped, you will receive follow-up emails from the HCUP Central Distributor containing your order invoice, order status updates, and all necessary instructions for order fulfillment.

A separate email contains the passwords for unzipping all database products in the order. The passwords are shown in a numbered list. You must compare that list to the list of databases and files in your order invoice; *the password list uses the same sequence as the list of databases in the order.*

- The order invoice is embedded in each order status update email you received; it can also be printed from the Order Details in the [HCUP Central Distributor Online Reporting System](#).
- The Order Details screen also lists the databases in sequence. In the [HCUP Central Distributor Online Reporting System](#), view the Orders tab under [My Account](#).

In the list of databases, an asterisk follows the database name if there is a corresponding password. Files that do not need a password (e.g., supplemental CCR files) do not have an asterisk.

During the unzip/extraction process, error messages about corrupted files, folder errors, or incorrect passwords are typically caused by attempting to extract the database using the built-in zip utilities that come with Windows® or Mac operating systems. You must use a third-party zip utility to unzip the files, because the HCUP databases are compressed with a higher level of encryption than the standard utilities support. For additional information about third-party zip utilities, refer to the following question.

Resources for Using HCUP data

Please refer to the extensive documentation on HCUP-US regarding the use of HCUP data, including [Database Documentation](#), [Research Tools](#) that can be used with the HCUP Data and the [HCUP Online Tutorial Series](#). For questions related to the use of HCUP data, please contact HCUP Technical Assistance at hcup@ahrq.gov.

HCUP produces several online query systems, publications and reports featuring HCUP data and tools that may be useful references in the completion of your project.

To quickly determine if the estimates you are deriving in your analysis are consistent with the information produced by the Agency for Healthcare Research and Quality, please see the following:

- [HCUP Database Documentation](#) on HCUP-US. Each specific database documentation page includes the following information:
 - **Description of the Database**
 - **File compositions** to understand what was originally provided from the State.
 - **File Specifications and Load Programs** (SAS, SPSS, and Stata)
 - **Availability and Description of Data Elements**
 - **Summary Statistics:** contents of all files including means of numeric variables, frequency distributions, and univariates on continuous variables.
 - **Known Data Issues**
 - **Label and Format Programs** for use with the files
 - **Supplemental File** information
- [HCUPnet](#) is a free, online query system that provides statistics and data tables based on HCUP data. It's easy, step-by-step process allows users to explore many healthcare topics relating to hospital inpatient services and emergency department settings. Users also may generate tables and graphs on national and regional statistics including hospital readmissions and trends on hospital and emergency

department use in the United States. In addition, State-specific statistics, including information at the county-level, are available for States that have agreed to participate in [HCUPnet](#).

[HCUPnet](#) can access statistics from all HCUP databases: the [NIS](#), the [KID](#), the [NRD](#), the [NEDS](#), selected [SID](#) and selected [SEDD](#).

Information in [HCUPnet](#) includes:

- Diagnosis and procedure classifications (e.g., diagnosis-related groups [MS-DRGs], CCSR categories, major diagnostic categories [MDCs])
- Patient demographic characteristics
- Hospital characteristics Expected payer
- Discharge status
- Length of stay
- In-hospital mortality for diagnosis and procedure classifications
- Trends in inpatient and outpatient access, charges, and outcomes
- Utilization by special populations
- Most common conditions and procedures
- Variations in medical practice
- Quality of care and patient safety
- Differences in outcomes between hospital type
- National estimates of hospital readmissions
- Online z-test calculator to test statistical significance of differences between two weighted counts, means, or percentages
- Validation of results obtained from the HCUP databases

In addition, the following examples provide publications and reports that can provide ready-made sources of statistics and guidance on a range of healthcare related subjects.:

- [HCUP Statistical Briefs](#), which present simple, descriptive reports on a variety of specific, healthcare related issues
- [HCUP Methods Series Reports](#), which feature a broad array of methodological information on the HCUP databases and software tools
- [HCUP Topical Reports](#), which provide information on various priority populations
- [HCUP Infographics](#), which provide a visual representation of [HCUP Statistical Briefs](#) and other data
- [HCUP Data Visualizations](#) provide access to interactive visual displays of select HCUP data.
- [HCUP Findings-At-A-Glance](#) provides snapshots covering a broad range of health policy issues related to hospital use and costs.
- Additionally, the HCUP-US website has an HCUP [Publications Search](#) feature, which allows visitors to search keywords for peer-reviewed articles and AHRQ reports that used HCUP data or products to support their research. The HCUP-US website showcases high-quality examples of articles in its [Research Spotlights](#) feature.

The HCUP-US website also offers readily available statistics in the form of downloadable tables/figures or interactive data visualizations. Examples include the following:

- [HCUP Summary Trend Tables](#), which provide downloadable tables containing State-specific monthly trends in hospital utilization derived from the HCUP SID and SEDD
- [HCUP Fast Stats](#), which is an online query tool that uses visual displays to compare national or State statistics on a range of healthcare topics

- [HCUP Diagnosis and Procedure Frequency Tables](#), which provide frequencies of ICD-9-CM and ICD-10-CM/PCS codes (individually and by clinical categories) for the HCUP Nationwide databases (NIS, KID, NASS, NEDS, NRD)
- [HCUP Visualization of Inpatient Trends in COVID-19 and Other Conditions](#), which displays State-specific monthly trends in inpatient stays related to COVID-19 and other conditions.

Publishing with HCUP data

Before you publish results based on any HCUP database, confirm that the manuscript follows the requirements of the HCUP Data Use Agreement (DUA). For publications using the NIS, KID, NASS, NEDS, and/or NRD, refer to the [HCUP DUA for Nationwide Databases](#); for publications using the SID, SASD, and/or SEDD, refer to the [HCUP DUA for State Databases](#). Both DUAs are available on the [DUA Training](#) page.

Avoid common errors and pitfalls related to the use of the HCUP Nationwide data by reviewing the relevant Checklist as you prepare your manuscript for publication.

- [Checklist for Working with the NIS](#), these guidelines also apply to the use of the KID
- [Checklist for Working with the NEDS](#)
- [Checklist for Working with the NRD](#)
- [Checklist for Working with the NASS](#)

Privacy Protections

Verify the following privacy protections:

- You **have not** identified individual persons in your publication, either directly or indirectly.
- You **have not** identified hospitals in your publication. All aggregate statistical reporting has at least two hospitals in any individual cell.
- You **have** avoided publication of cell sizes less than or equal to 10.

HCUP Citations

The HCUP DUAs also require citation of HCUP and the specific databases: **Verify** that the Healthcare Cost and Utilization Project (HCUP) and the HCUP database(s) are correctly cited in the abstract and manuscript. Review [citation examples](#) for specific details.

Acknowledgement of HCUP Data Partners

- HCUP Nationwide databases ([NIS](#), [KID](#), [NASS](#), [NEDS](#), and [NRD](#))
 - If space allows in the manuscript, please acknowledge all of the HCUP Data Partners that contribute to HCUP. A current list of the HCUP Data Partners is provided ([Word](#) file, 30 KB; [PDF](#) file, 71 KB; [HTML](#)). As an alternative, include in the manuscript a link to the HCUP-US web page that contains the list of State organizations (www.hcup-us.ahrq.gov/hcupdatapartners.jsp).
- HCUP State databases ([SID](#), [SASD](#), and [SEDD](#))

- At a minimum, reference the State name(s) and the HCUP databases used. If space allows in the manuscript, please acknowledge the HCUP Data Partner(s) by name. A list of HCUP Data Partners for reference in publications is provided ([Word](#) file, 30 KB; [PDF](#) file, 71 KB; [HTML](#)).

Submitting a Data Use Agreement (DUA) without a Purchase

If you will be collaborating on another person's data project, or otherwise using data you do not own, you must submit the appropriate DUA(s) prior to gaining access to the data. See the [Data Use Info & Agreements](#) tab for details and instructions.

Re-Using the Data Purchased for More than One Project

Each application and approval for **State-level data** is project-specific. If you have State-level HCUP data (SID, SASD, or SEDD) from a previous project and wish to use the data for a purpose other than that originally approved, or as concrete projects emerge from approved exploratory work, you must submit a "Data Re-Use Request" to the HCUP Central Distributor for review and approval by AHRQ before work may begin on the new project. You must be the current custodian of the HCUP data to submit a re-use request.

NOTE: Data Re-Use Requests do **not** need to be submitted for Nationwide databases.

Transferring the Custodianship of the Data to Another Person

You are the custodian for all data you purchase. If you will no longer have access to your data and will be transferring custody to another person, you may request a data custodian transfer by contacting the HCUP Central Distributor at HCUP-RequestData@ahrq.gov. Please remember that individuals, not entities, are responsible for the use and security of the HCUP data, so the data purchaser remains responsible for any use or potential misuse unless and until custody is formally transferred to another individual.