# Project Description

Each year the IRE Office need to report student, finance and HR data to the Integrated Postsecondary Education Data System (IPEDS), and IPEDS is a system of interrelated surveys conducted annually by the National Center for Education Statistics, a part of the Institute for Education Sciences within the United States Department of Education. You can find a feedback report for UD in academic year 2019-20, [DFR Report HTML (ed.gov)](https://nces.ed.gov/ipeds/dfr/2020/ReportHTML.aspx?unitId=130943). In this project, please collect reported data on tuition and required fees from UD and the 30 institutions in UD’s comparison group and perform data analysis. The Unit IDs of UD and the 30 institutions in UD’s comparison group are listed at the bottom of this document. Please contact us if you have any question about the steps and the instruction below.

Steps:

1. Collect data from IPEDS and prepare a dataset on tuition and required fees (more instruction on data collection later).
2. Replicate Figure 7 in the feedback report for UD in academic year 2019-20 ([DFR Report HTML (ed.gov)](https://nces.ed.gov/ipeds/dfr/2020/ReportHTML.aspx?unitId=130943)). You do not need to replicate the exact format. How would you interpret the figure?
3. Summarize the data in different type(s) of visualization. How would you interpret the figure(s)?
4. Predict tuition and required fees at UD in academic year 2020-21. Do you think the result will be accurate? Why?
5. Present your process/results on data collection, data visualization and prediction. The presentation will be 45 minutes following with a 15-minute Q&A session.

Here is one of the multiple ways to collect data from IPEDS.

1. Visit [The Integrated Postsecondary Education Data System](https://nces.ed.gov/ipeds/use-the-data)
2. Click “Select download option” under “Survey data”
3. Click “2019-20 Access” under “**Download an IPEDS Access Database**”
4. Similarly, download earlier years’ data by clicking “2018-19 Access”, “2017-18 Access” and “2016-17 Access”
5. Unzip the downloaded Zip files, you should see three files in each Zip file, a Microsoft Access file with all the data tables, a Microsoft Excel file as data dictionary and a Microsoft Word file for general instruction.
6. In order to select the proper tables and use proper fields in the Access files, please read the Word files and Excel files at first.
7. Collect data on tuition and required fees of the 31 institutions

Here is a manual (not recommended) way to collect data from IPEDS. You can review the “[Data Feedback Report](https://nces.ed.gov/ipeds/datacenter/Default.aspx?gotoReportId=12&fromIpeds=true)” to collect data from the 31 institutions’ individually, or you can use “[Look Up an Institution](https://nces.ed.gov/ipeds/datacenter/Default.aspx?gotoReportId=6&fromIpeds=true)”. This option is not recommended because it is a more manual process than automatic. However, you can use the option as a backup option or to validate your results.

In addition, you can contact “**IPEDS Data Use Help Desk (866) 558-0658 or**[**ipedstools@rti.org**](mailto:ipedstools@rti.org)**”**, to get help for the data collection step. We can also provide help if you stuck in any step.

Unit ID list for UD and 30 institutions in the comparison group:

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| UNITID | INSTNM |
| 130943 | University of Delaware (Newark, DE) |
| 164988 | Boston University (Boston, MA) |
| 211440 | Carnegie Mellon University (Pittsburgh, PA) |
| 201645 | Case Western Reserve University (Cleveland, OH) |
| 190415 | Cornell University (Ithaca, NY) |
| 131496 | Georgetown University (Washington, DC) |
| 139755 | Georgia Institute of Technology-Main Campus (Atlanta, GA) |
| 151351 | Indiana University-Bloomington (Bloomington, IN) |
| 153603 | Iowa State University (Ames, IA) |
| 171100 | Michigan State University (East Lansing, MI) |
| 199193 | North Carolina State University at Raleigh (Raleigh, NC) |
| 167358 | Northeastern University (Boston, MA) |
| 147767 | Northwestern University (Evanston, IL) |
| 204796 | Ohio State University-Main Campus (Columbus, OH) |
| 214777 | Pennsylvania State University-Main Campus (University Park, PA) |
| 243780 | Purdue University-Main Campus (West Lafayette, IN) |
| 186380 | Rutgers University-New Brunswick (New Brunswick, NJ) |
| 196097 | Stony Brook University (Stony Brook, NY) |
| 228723 | Texas A & M University-College Station (College Station, TX) |
| 104179 | University of Arizona (Tucson, AZ) |
| 129020 | University of Connecticut (Storrs, CT) |
| 145637 | University of Illinois at Urbana-Champaign (Champaign, IL) |
| 163286 | University of Maryland-College Park (College Park, MD) |
| 166629 | University of Massachusetts-Amherst (Amherst, MA) |
| 170976 | University of Michigan-Ann Arbor (Ann Arbor, MI) |
| 174066 | University of Minnesota-Twin Cities (Minneapolis, MN) |
| 199120 | University of North Carolina at Chapel Hill (Chapel Hill, NC) |
| 215293 | University of Pittsburgh-Pittsburgh Campus (Pittsburgh, PA) |
| 230764 | University of Utah (Salt Lake City, UT) |
| 234076 | University of Virginia-Main Campus (Charlottesville, VA) |
| 233921 | Virginia Polytechnic Institute and State University (Blacksburg, VA) |