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# Financial Value Transparency and Gainful Employment Reporting

## Overview

Thank you for reaching out to Baylor University regarding the Student Cohort files and preparing your Ellucian Banner ERP system for reporting. We understand that your priority is getting to the output, so we’ll keep this brief. This process was developed internally over several months, and while it could be further refined, it is effective and ready for immediate use. The workflow follows a straightforward pattern that we’ve successfully applied to past reporting projects.

In this setup, we chose to let the NSC Student Cohort file drive the aggregation of data from Banner. The script was run on an Azure SQL instance, where we then formatted the data to meet NSC’s required specifications. It’s worth noting that, while we are not an IT department, our operations team has developed this solution with strong SQL and technical knowledge.

**Code and solution was created by:** Margaret Lemon (IT), Joey Yglecias (IT), Zachary Steel (FA Ops), and Doug Garnes (EM Ops)

**Date deployed:** September of 2024

## Getting Started

#### We chose to let the NSC Student Cohort file drive the aggregation of data from Banner, running the script on an Azure SQL instance, where we then formatted the data to meet NSC’s required specifications. It’s worth noting that we are not an IT department; rather, we are an operations team with strong SQL and technical expertise.

#### Technology Used at Baylor University

Excel to create the NSCList loaded into our production database

Access to Banner Database

Azure Data Factory to move data from Banner to a MS SQL Instance

## Scripts and Processes

#### Student Cohort File

1. Our solution depends on the NSC Student Cohort file provided. We loaded it onto the production server adjacent to Banner, but only imported the necessary columns.Record type (TA, AA)
   1. SSN
   2. StudentID
   3. CIP Code
   4. Award Year
2. We combined both award years into a single .csv file and requested our IT team to load it into a temporary table. However, the header row wasn’t preserved during this process, which resulted in unconventional column names—you’ll notice this when reviewing the Banner script.FVT – Banner
3. Included in the Git repository is a PL/SQL script that will need to be modified for your institution.
   1. Each place that needs to be modified is starts with a --\*\*
   2. The --\*\* comments indicate where you can insert your institution-specific business logic. Each section of business logic is encapsulated within an easily maintainable Common Table Expression (CTE), as we don’t have write access to our production database—not even for temporary tables. We’ve optimized the script to be as efficient as possible within these constraints. Azure Data Factory is not necessary, but it is what we have and it worked well for this situation.
4. A one-time upload of the NSC2223 and NSC2324 files was imported into our Azure MS SQL instance.
5. The FVT-Banner script was published to Azure Data Factory and used to create an output table, which we then joined with the NSC2223 or NSC2324 Student Cohort file.
6. The output location was an Azure MS SQL instance, with data loaded into the fvt schema.

#### Azure MS SQL

## Since we don’t have write access to the Banner production database, we used a secure Azure MS SQL instance to load the two Student Cohort files for 2022-2023 and 2023-2024, choosing to go back two years.

## We utilized two T-SQL scripts to create the NSC output files in the exact required format:

## **NSC2223\_tSQL\_Merge**

## **NSC2324\_tSQL\_Merge**

## Both scripts are included in the Git repository.

## By allowing our vetted NSC cohort files to drive the process, we created a durable output independent of the Banner solution. This approach avoids potential overwrites of existing NSLDS data and minimizes the risk of errors that could trigger red flags or require additional work due to incorrect submissions. Our choice was to follow a more linear, low-risk approach.

## Usage Instructions

1. Combine your cohort files into a single .csv file and load the data into your Banner production database.
2. Update the FVT Shared script for CTE with your institution’s business logic. This should be straightforward, as we’ve created separate CTEs for each piece of business logic.
3. Export the FVT Shared data from Banner to your data warehouse, where you’ll run the final two scripts.
4. Import both NSC22223 and NSC2324 files into your data warehouse.
5. Run the merge, ensuring that your data from Banner is aligned on Student/SSN, Award Year, CIP Code, and Record Type.
   1. Note: We used Azure MS SQL due to availability, but you can use any database system since the process follows a universal pattern.

## Contributing

This is a public Git repository so if you find something you think we could all benefit from please share.

## License

More than anything this process is not guaranteed to be perfect so please test it thoroughly before submitting your file to NSC.