

Using Microsoft Excel or Access to Produce HEI Compatible Submission Files

HEI submission files consist of two parts: header line and record lines.

Header Line

This must be the first line in the data file that is being submitted. It tells HEI who is submitting the file, what data it contains, and what to do with it. In most cases you will need to type the header line in as the very first line of your file; however, it is easier to convert the rest of your data without worrying about the header record until the very end. Just remember to put it in before submitting the file to HEI.

General information on the header record can be found at:
(insert hyperlink)

A typical header line will look like this:

OHSUNC2007NA000010

Broken down, this is what the header record says:

OHSU Institution submitting the file

NC Type of file

2007 Year of submission

NA Term of submission (NA stands for an annual file)

Record Lines

All file descriptions can be found on the HEI website. General information concerning data format can be found at: <http://regents.ohio.gov/hei/datasubdoc/general/dataformat.html>

In addition, each submission field has its own description page. Here is the description for the record lines for both of the Non-Credit data reporting areas:

NC (Non-Credit Course/Activity) file: <http://regents.ohio.gov/hei/noncredit/datasubdoc/ncfile.html>

NE (Non-Credit Student Enrollment) file: <http://regents.ohio.gov/hei/noncredit/datasubdoc/nefile.html>

Here's a typical record description:

Field Names	Field Attributes and Procedures	Data Format
Campus	Enter a campus code from Institution/Campus Codes .	Alphabetic 4 characters Columns 1-4
Student Identifier	Enter the federally assigned Social Security Number (SSN) whenever possible. If the SSN is unavailable, enter another identifier which uniquely relates to this student. Student identifiers for minors are to be assigned by the campus.	Alphanumeric 9 characters Columns 5-13 Left justify
Institution Assigned Identifier Switch	Enter Y if the student identifier is not a federally assigned Social Security Number. Enter N if the student identifier is the SSN assigned by the federal government.	Alphabetic 1 character Column 14

Turn it on the side to see the correct layout needed for your text file:

Campus	Student Identifier	Institution Assigned Identifier Switch
Alphabetic 4 characters Columns 1-4	Alphanumeric 9 characters Columns 5-13 Left justify	Alphabetic 1 character Column 14

So, a short NE upload file will look like this:

```
ASHT123456789NDoe      John      MWH4PERFLVL2FY0630004 NN
ASHT234567890YSmith    John      MWH2PERFLVL2FY0630004 NN
ASHT345678912NDavis    James     MWH3PERFLVL2FY0630004 NN
ASHT456789123NMcGee    Mark      MWH3PERFLVL2FY0630004 NN
ASHT567891234YMacy      William   MWH3PERFLVL2FY0630004 NN
ASHT678912345YMiller    Jim       MWH3PERFLVL2FY0630004 NN
```

How to use Microsoft Excel to Produce HEI compatible Submission Files

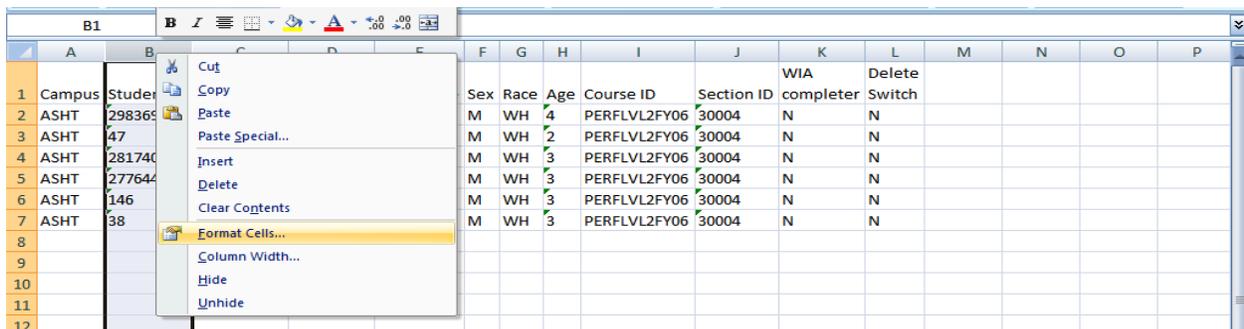
The real question is how do you convert an Excel spreadsheet into the above?

Things to note:

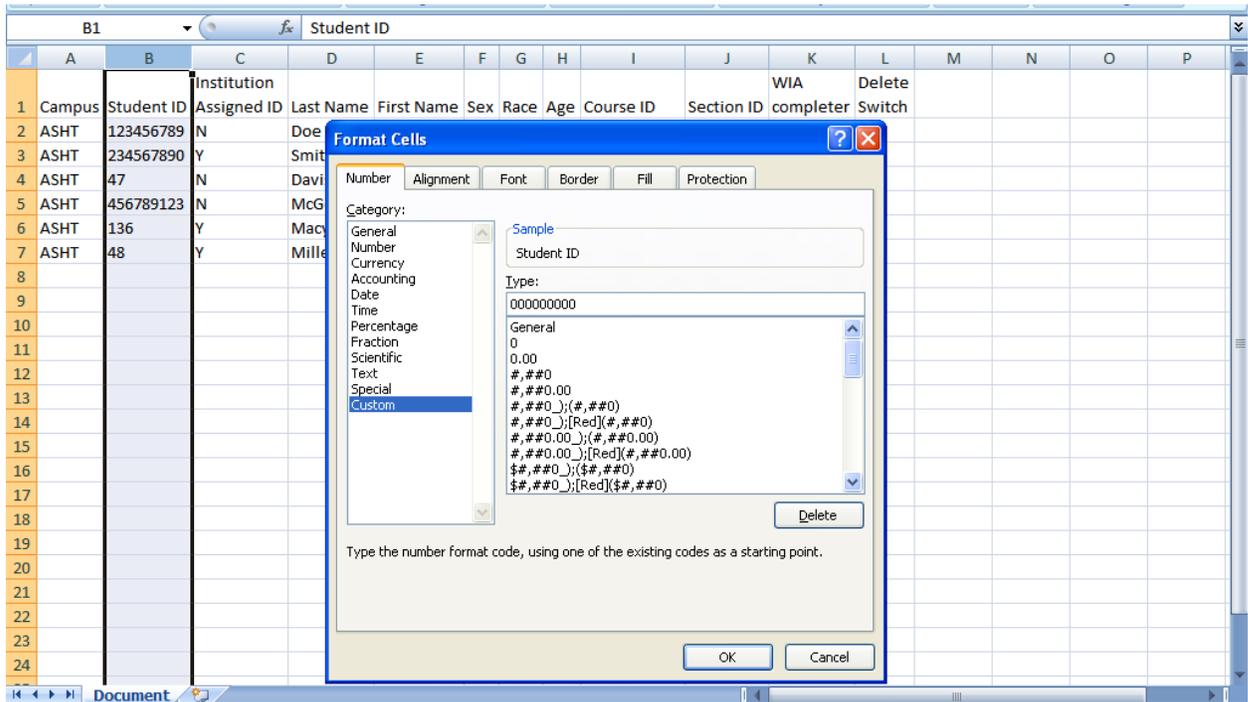
Columns A, C,F,G,H, K, and L all look good as all the text data has the same number of characters
Columns B, D, E, I and J could be is an issue due to the possibility of variable length text fields

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Campus	Student ID	Assigned ID	Last Name	First Name	Sex	Race	Age	Course ID	Section ID	WIA completer	Delete Switch				
2	ASHT	298369126	N	HAROLD	DAVIES	M	WH	4	PERFLVL2FY06	30004	N	N				
3	ASHT	47	Y	RYAN	WODRICH	M	WH	2	PERFLVL2FY06	30004	N	N				
4	ASHT	281740242	N	MATT	PHILPOTT	M	WH	3	PERFLVL2FY06	30004	N	N				
5	ASHT	277644473	N	MARK	BARRON	M	WH	3	PERFLVL2FY06	30004	N	N				
6	ASHT	146	Y	MIKE	TERELMES	M	WH	3	PERFLVL2FY06	30004	N	N				
7	ASHT	38	Y	BRAD	MILGATE	M	WH	3	PERFLVL2FY06	30004	N	N				

The problem with using Excel is preventing it from stripping off leading zeroes from numbers or adding ending zeroes to numbers. To ensure the data has the correct number of characters we must use the format cells feature.

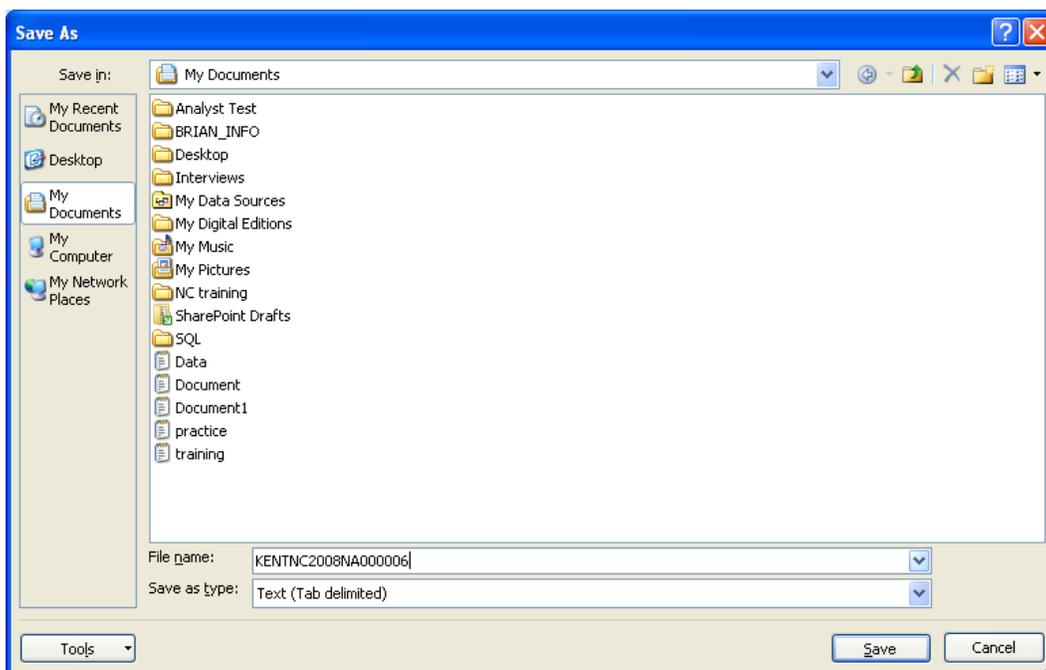


Click on the “Number” tab and in the category box chose “Custom”. In the “Type” box enter a zero for each character for the width of the field. Click on “OK” to assign the format to the column. For example, column B (student identifier) should be 9 characters wide, so in this example we would enter 9 zeroes in the “Type” box. Perform this operation on all **numeric** columns to ensure they contain the proper number of digits.



- *Note: For the above spreadsheet this option would not be a valid option since these are zero numeric fields and most fields are alphanumeric which can lead to variable length text fields*

The next step is to export the data into a text file. Click on the “Office Button”, chose “Save as” and click “Other Formats”. In the “Save as” selection box in the “Save as Type” field chose “Text (Tab Delimited)”. Once you chose the proper directory to store your file and giving it a proper name click “Save”.



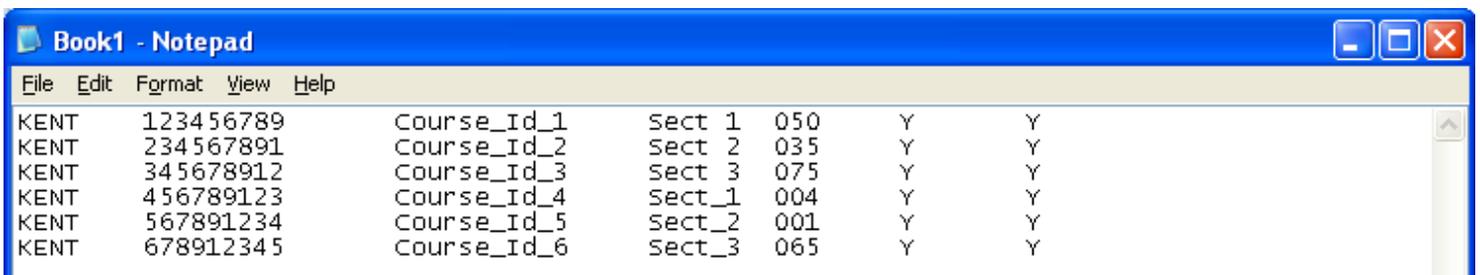
Unfortunately, this is still not quite what we need for submission to HEI. Excel does not possess the ability to export true fixed width records. So, we created a tab-delimited file by placing an invisible tab character between the data columns. In order to finalize the file for HEI submission we need to remove these invisible characters.

You now need to make a choice. If the submission file contains variable length fields (e.g. names, Course ID, etc), or embedded spaces as fields, you will need to ensure that these fields contain the proper number of spaces so that all the fields contain the same number of characters. Excel offers no way to make these corrections. If it is a small submission file you may want to do this in Notepad or Textpad (I would recommend Textpad as it shows which row and column space you are in) by simply inserting the spaces in the required fields. However, this method is not practical for large files and you will need to use Access to make these corrections.

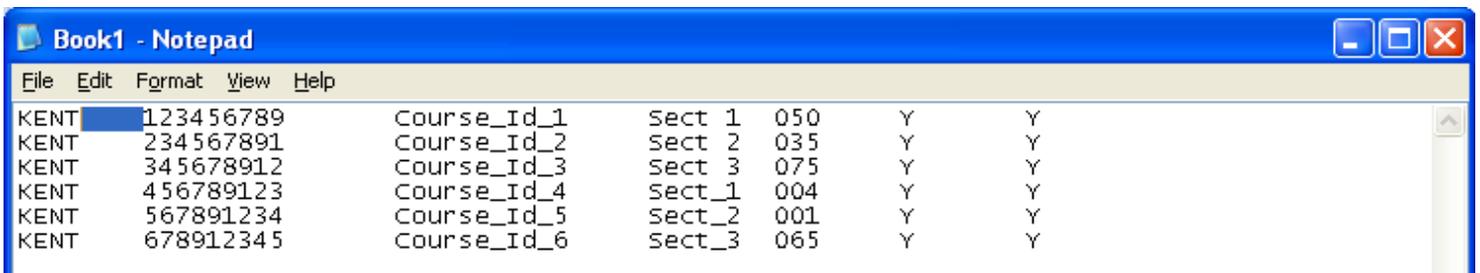
If your submission file does not contain variable length text data you can use Notepad or Textpad to remove the tab characters and add the header record. To do so, open Notepad and open the file.

- *Note: This option cannot be used for the file that was mentioned previously due to the variable length text fields and embedded spaces as fields. So for this demonstration I am using a different text file.*

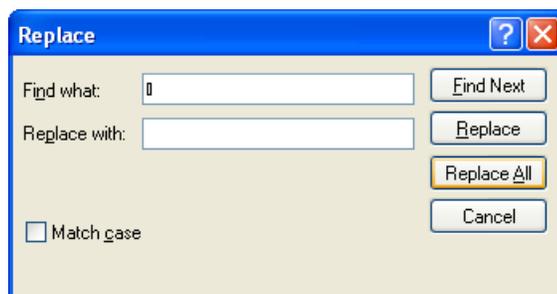
Notice the spacing caused by the invisible tab characters:



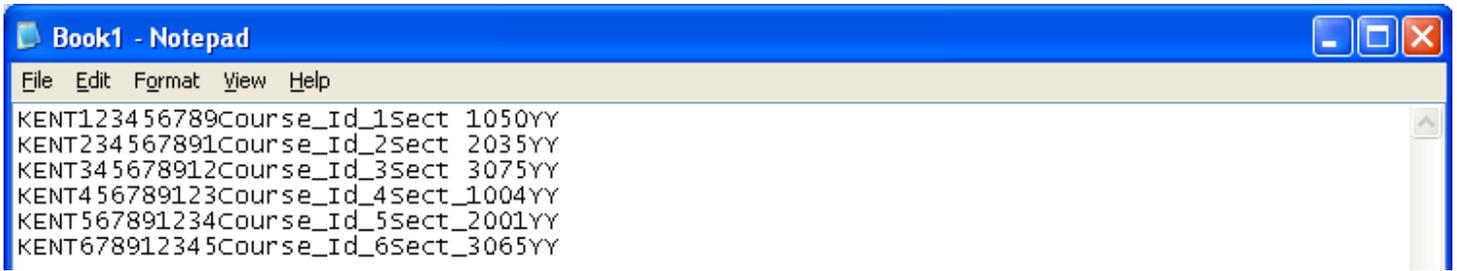
Using the mouse select one of the tabs.



Then, select Edit chose Copy (or Ctrl+C) to copy the tab. Then select Edit chose Replace to bring up the Replace dialogue box. Click once on the "Find what" box then right click and chose paste (or click once in the box then press Ctrl+V).



Make sure that the “Replace with” box is empty. Click on “Replace All”. Instantly you will see that all the tab characters have been removed from the text file.



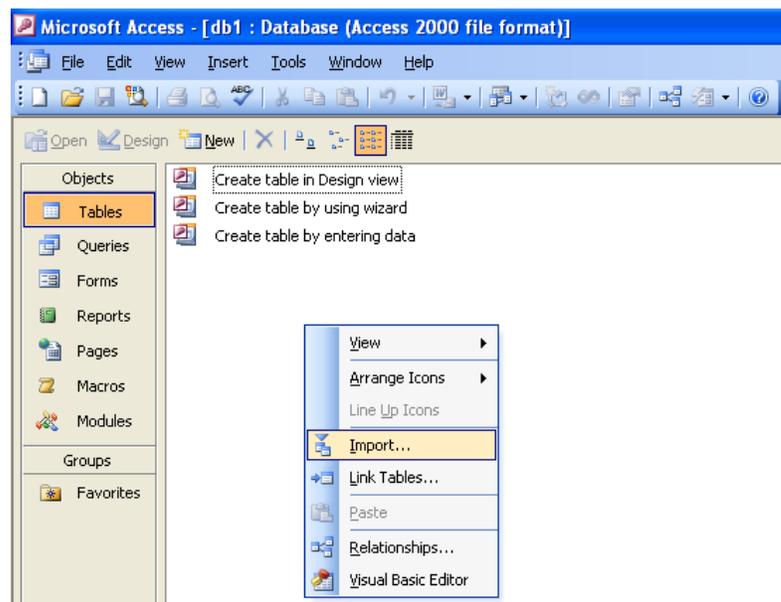
Insert the header record. Make sure there are no extra spaces in the document by pressing “Ctrl+End” to see where the end of the document is and if it is not after the last character in your file press “Delete until you see the cursor after that last character.”

How to use Microsoft Access to Produce HEI compatible Submission Files

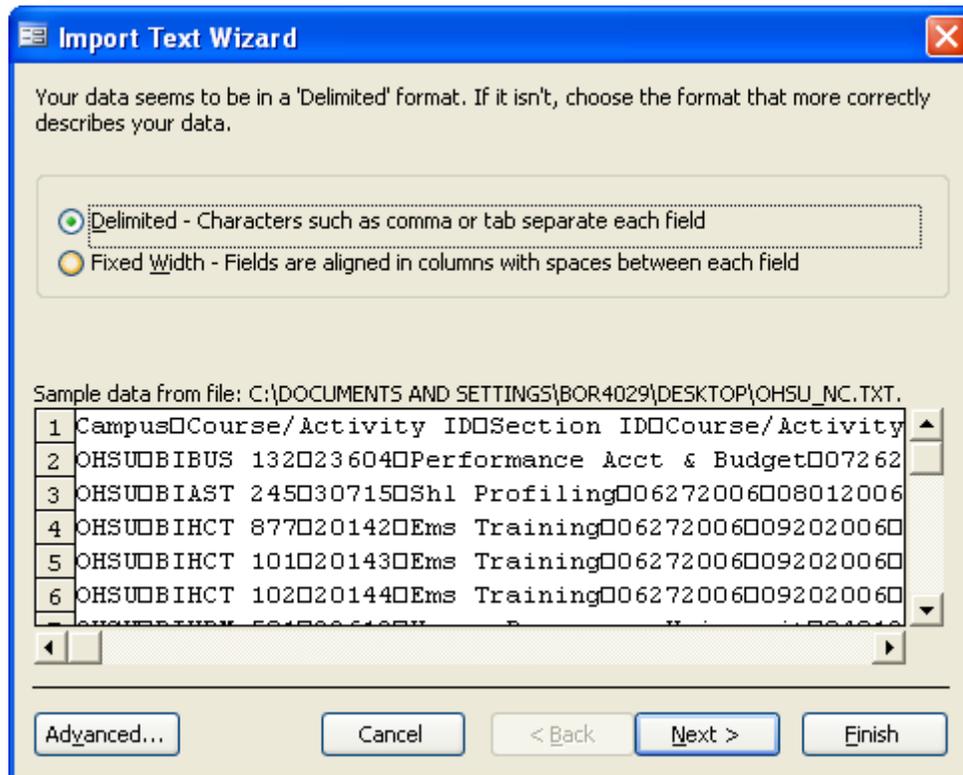
Why would you want to use Access for this procedure? There are three reasons of why you would want to use Access:

- Normally the data is housed in Access databases at your institutions
- Your IT department gave you the data in an Access database
- You exported a text file from Excel but it contains variable length text fields that need to be converted to fixed width

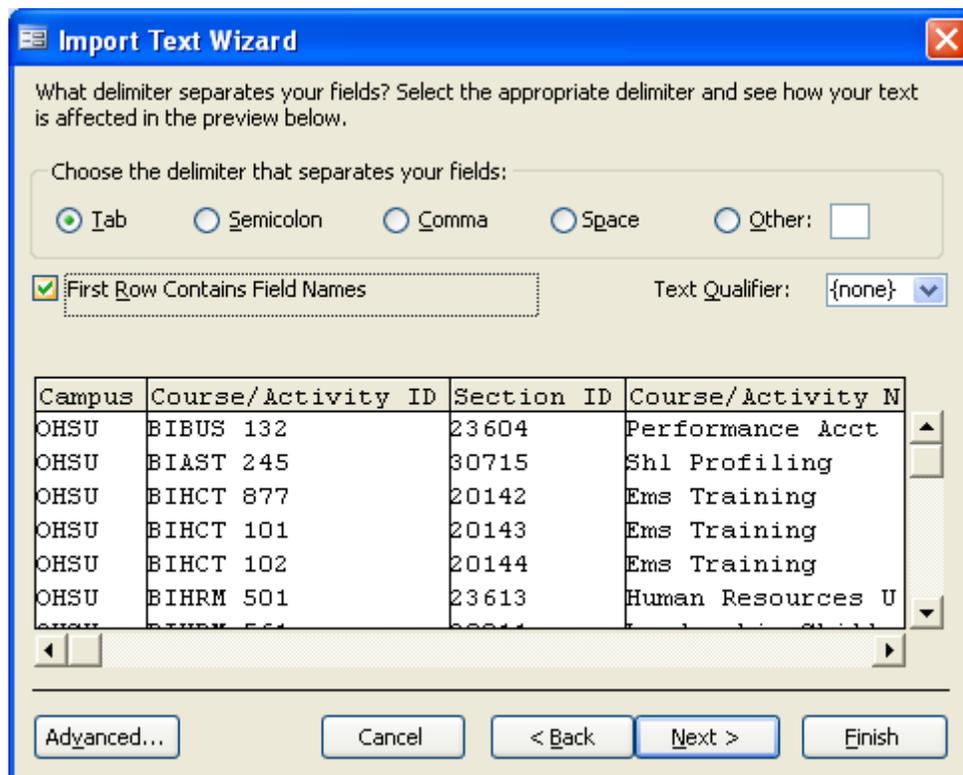
If you are dealing with variable length text fields the easiest method is to export the file from Excel as a tab delimited text file. This will allow you to import the text file into Access while maintaining leading zeroes in the numeric fields. To import the file, create a new database in Access. Right Click anywhere in the database and select “Import”.



The “Import” selection box comes up and the first thing to check is to make sure the “Files of Type” box is selected for the specific type of file you are trying to import. Click “Browse” and go to the correct directory of where the tab delimited text file you exported from Excel is stored, click on the correct file and click “OK”. The “Import Text Wizard” selection box comes up and make sure “Delimited” is selected. Click “Next”.



“Tab” should be selected in regards to what type of delimiter separates your fields. Also, make sure “First Row Contains Fields Names” is checked. Click “Next”



Make sure the box labeled “In a New Table” is selected when the Import Text Wizard asks you where you want to store your data. Click “Next”

You can store your data in a new table or in an existing table.

Where would you like to store your data?

In a New Table

In an Existing Table:

Campus	Course/Activity ID	Section ID	Course/Activity N
OHSU	BIBUS 132	23604	Performance Acct
OHSU	BIAST 245	30715	Shl Profiling
OHSU	BIHCT 877	20142	Ems Training
OHSU	BIHCT 101	20143	Ems Training
OHSU	BIHCT 102	20144	Ems Training
OHSU	BIHRM 501	23613	Human Resources U

Advanced... Cancel < Back Next > Finish

Specify every field as “Data Type” **Text**. To do so, click on each column and change the “Data Type” to Text. Click “Next”

You can specify information about each of the fields you are importing. Select fields in the area below. You can then modify field information in the 'Field Options' area.

Field Options

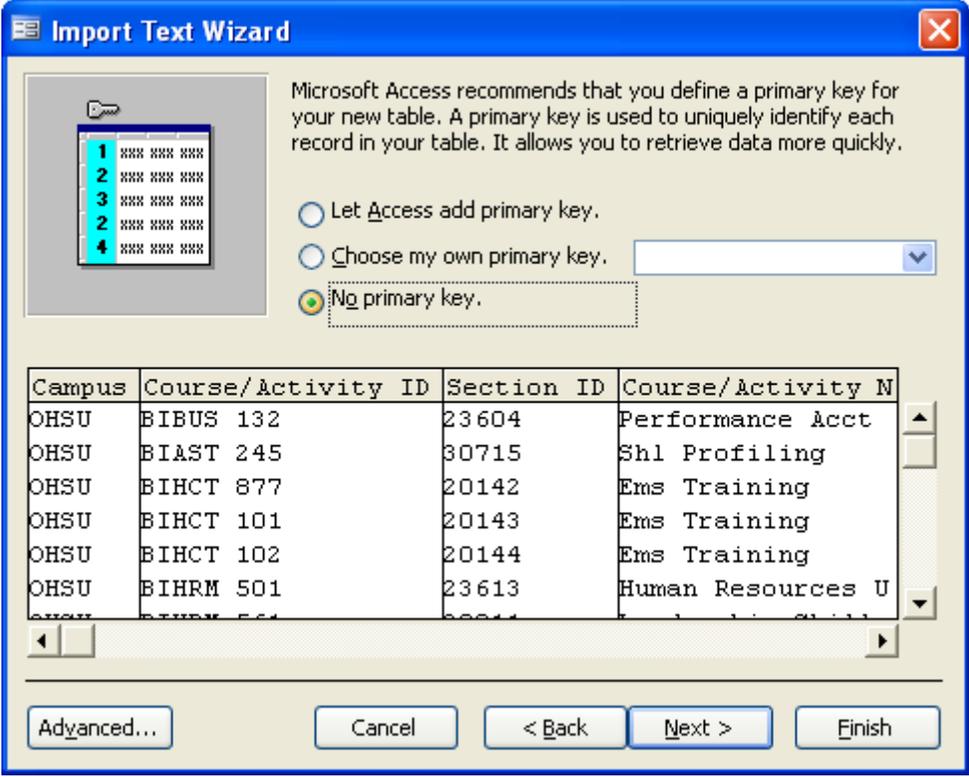
Field Name: Data Type:

Indexed: Do not import field (Skip)

Campus	Course/Activity ID	Section ID	Course/Activity N
OHSU	BIBUS 132	23604	Performance Acct
OHSU	BIAST 245	30715	Shl Profiling
OHSU	BIHCT 877	20142	Ems Training
OHSU	BIHCT 101	20143	Ems Training
OHSU	BIHCT 102	20144	Ems Training
OHSU	BIHRM 501	23613	Human Resources U

Advanced... Cancel < Back Next > Finish

Microsoft Access recommends that a primary key is defined for a new table; however, for this process a primary key is not needed. Make sure “No primary key” is selected. Click “Next”.



Microsoft Access recommends that you define a primary key for your new table. A primary key is used to uniquely identify each record in your table. It allows you to retrieve data more quickly.

Let Access add primary key.

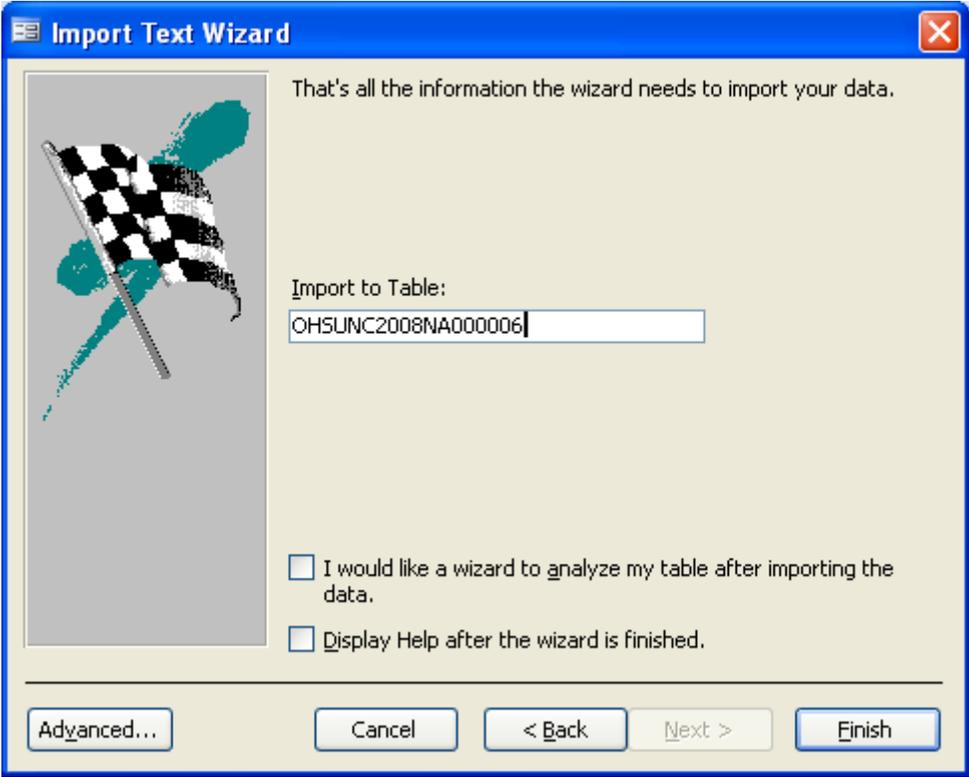
Choose my own primary key.

No primary key.

Campus	Course/Activity ID	Section ID	Course/Activity N
OHSU	BIBUS 132	23604	Performance Acct
OHSU	BIAST 245	30715	Shl Profiling
OHSU	BIHCT 877	20142	Ems Training
OHSU	BIHCT 101	20143	Ems Training
OHSU	BIHCT 102	20144	Ems Training
OHSU	BIHRM 501	23613	Human Resources U

Advanced... Cancel < Back Next > Finish

Give your new table a proper name for the file. Click “Finish”.



That's all the information the wizard needs to import your data.

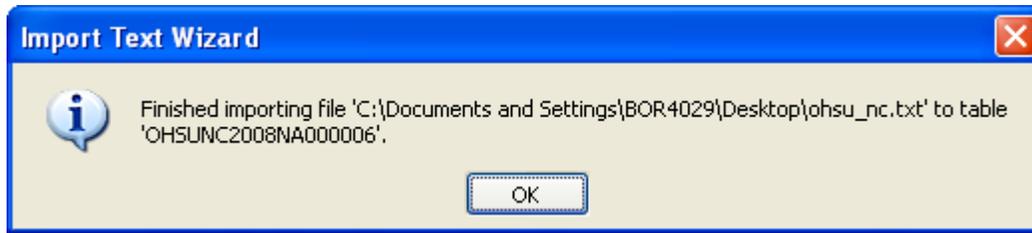
Import to Table:

I would like a wizard to analyze my table after importing the data.

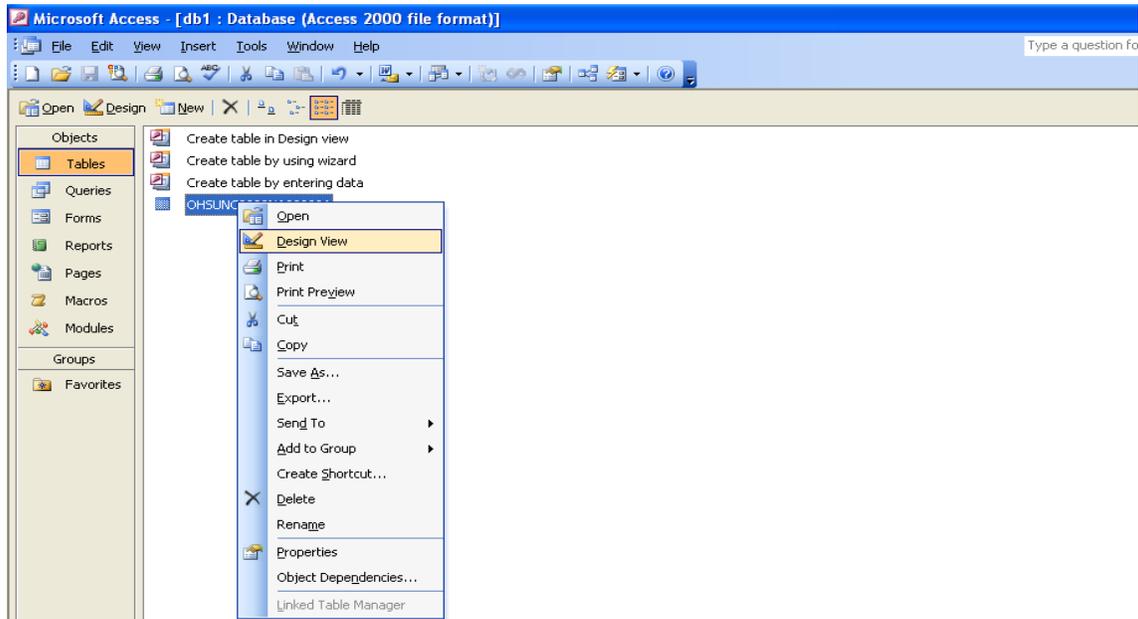
Display Help after the wizard is finished.

Advanced... Cancel < Back Next > Finish

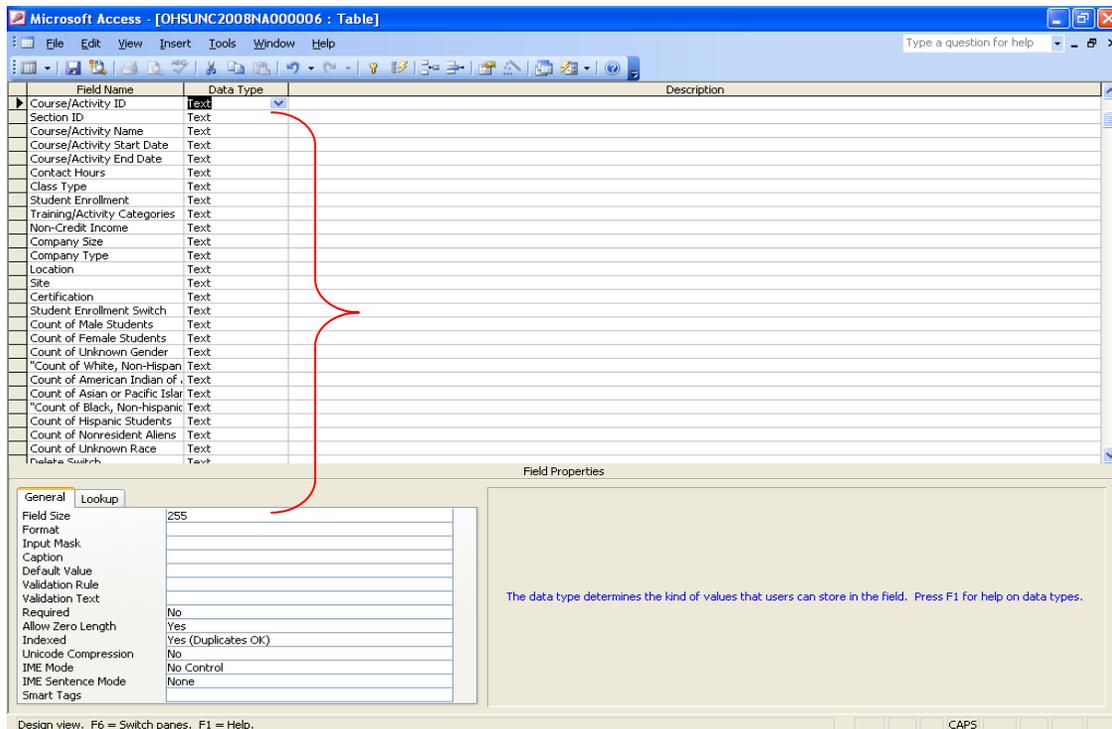
You have successfully imported your text file into Access. Click “OK”.



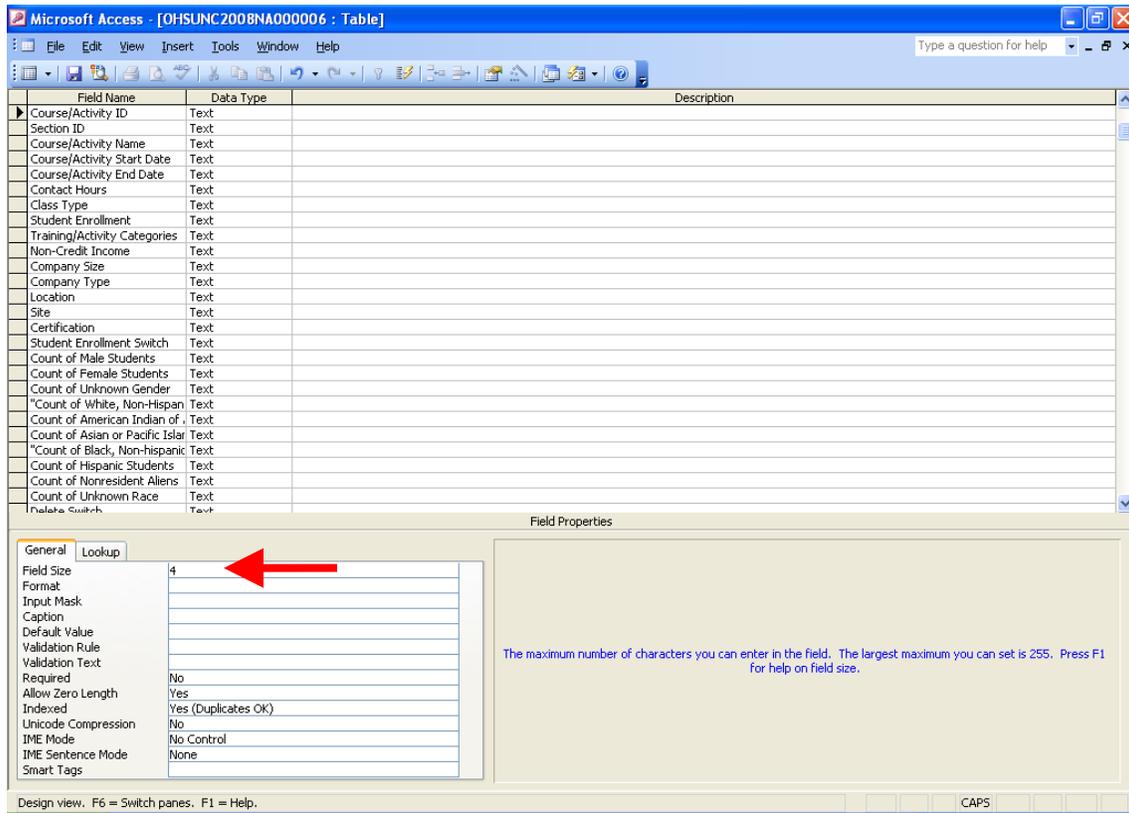
Right click on the table you have just imported into your Access database and select “Design View”.



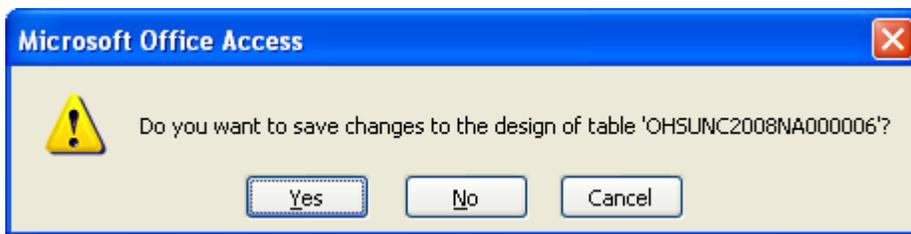
In the “Design View” be sure to check and make sure all “Data Type” fields are “Text”, if not change them to “Text”.



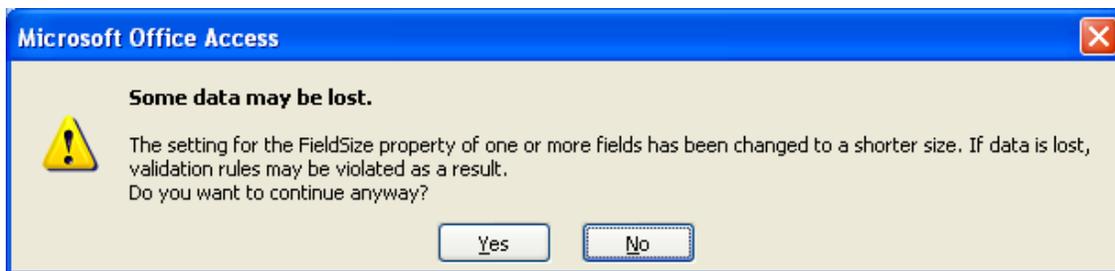
Also in this window, you must define the “Field Size” of each data field. You can input the numbers directly from the HEI file description directly into this form. For example, in this scenario the Campus field size should be changed from 255 characters to 4 characters, as well as every other field to adhere to the HEI file description.



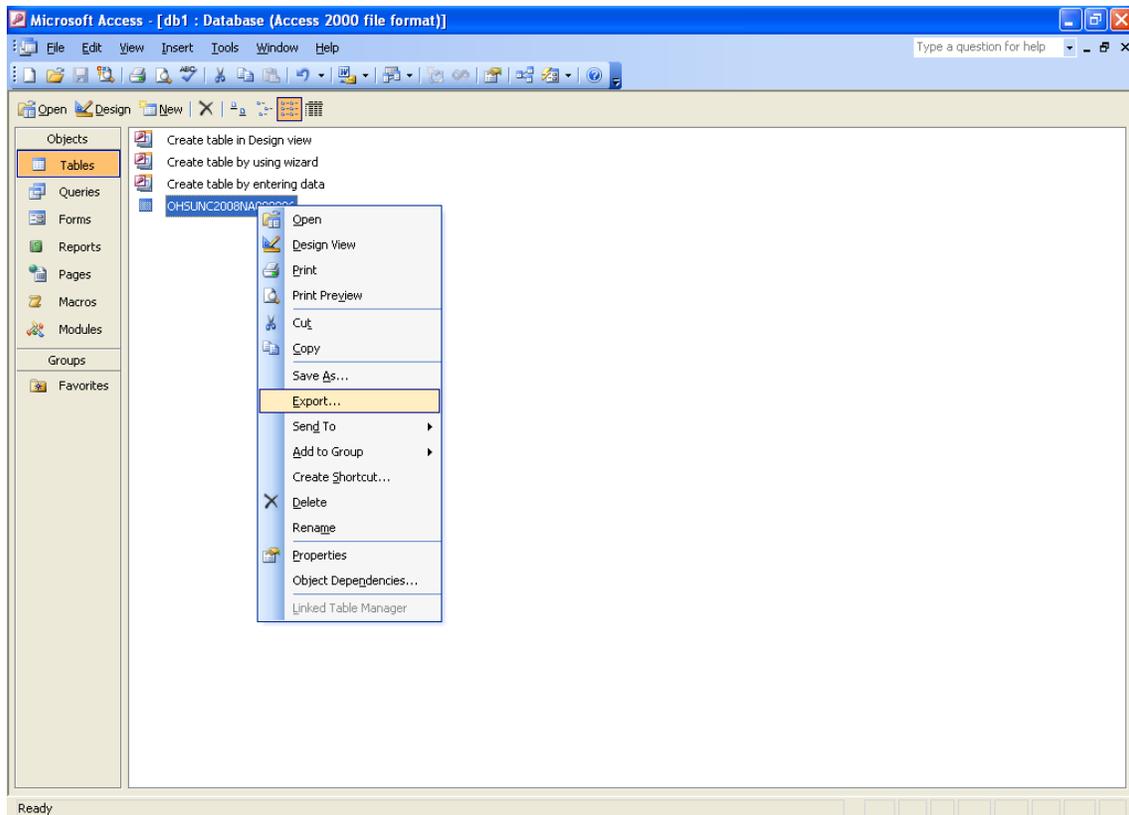
Go to File, click “Save”. Or simply close the table. By doing this the Microsoft Office Access “Save Changes” prompt appears. Click “Yes”.



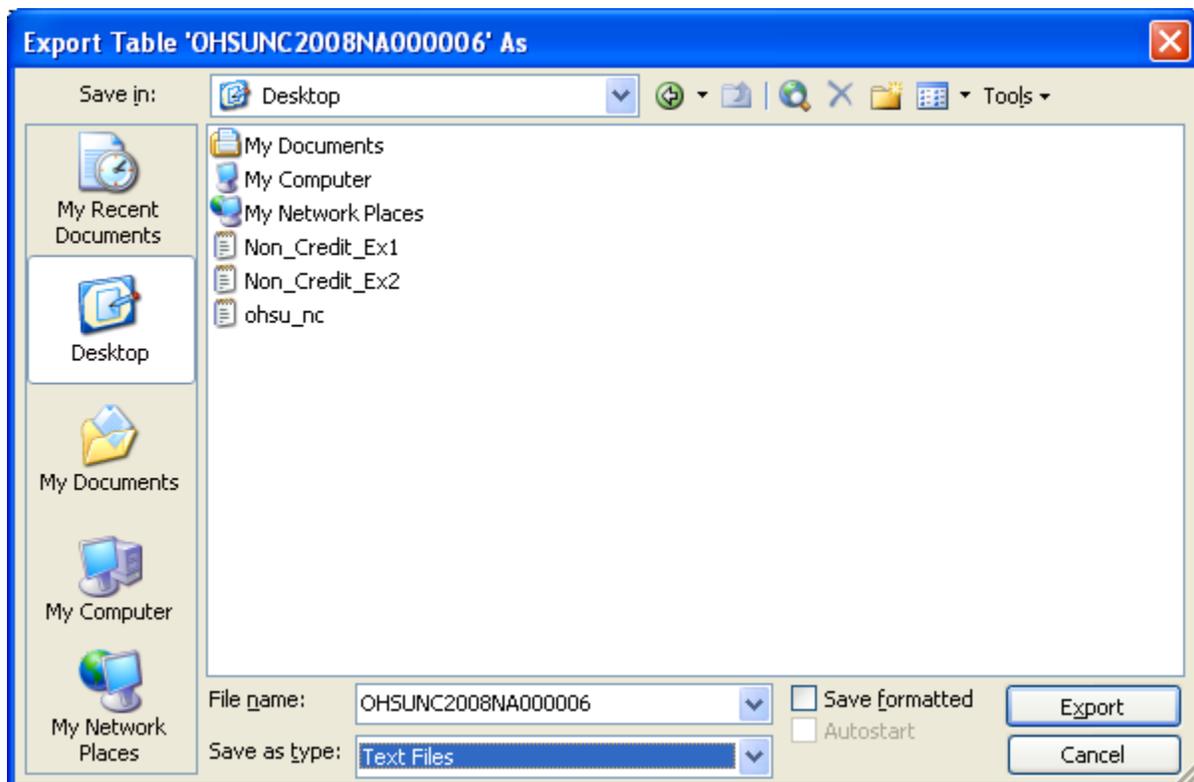
Microsoft Access prompt for notification of “Some data may be lost” will appear after making changes in the design view of a table. This is fine and no data will actually be lost. Click “Yes”.



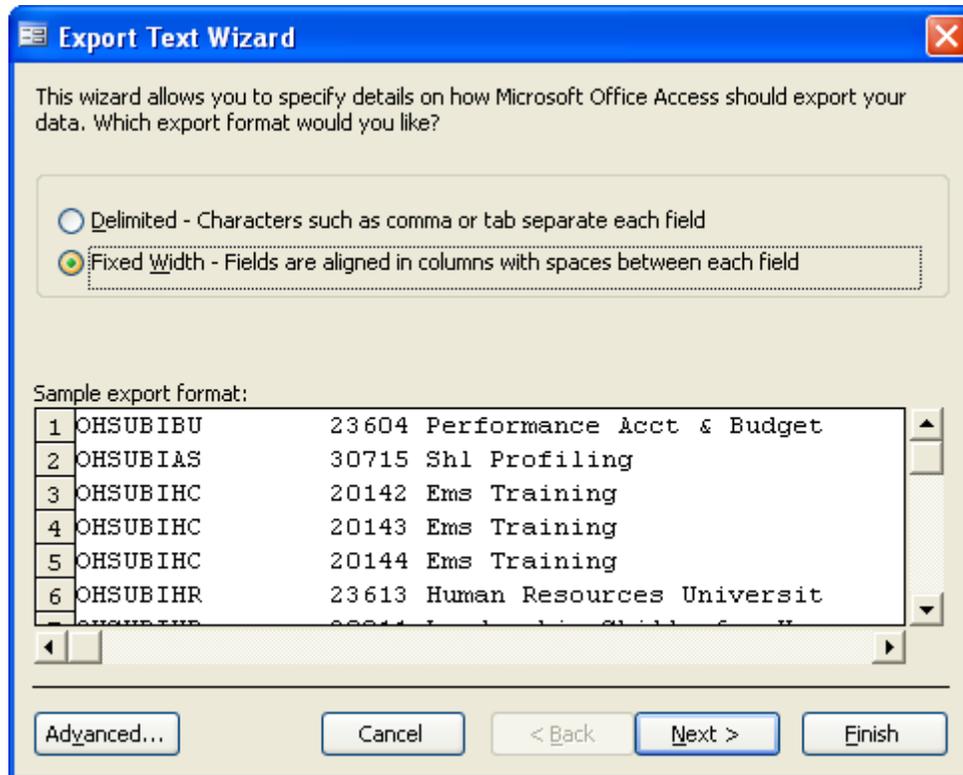
The next step is to export this table as a text document. To do this, right click on the table name, select “Export” and chose “Text File”.



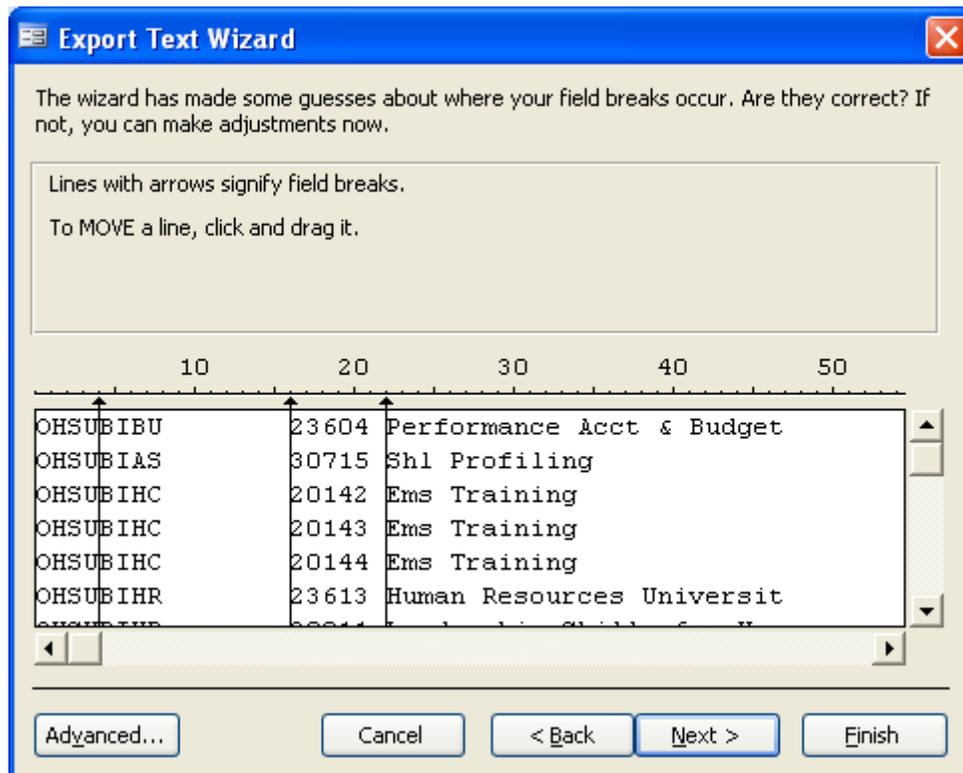
Click “Browse” and go to the correct directory of where you want the exported tab delimited text file to be saved. The “Export Table” selection box comes up and make sure you are saving it with the correct file name and in the “Save as Type” box has been changed to “Text Files”. Click “Export”.



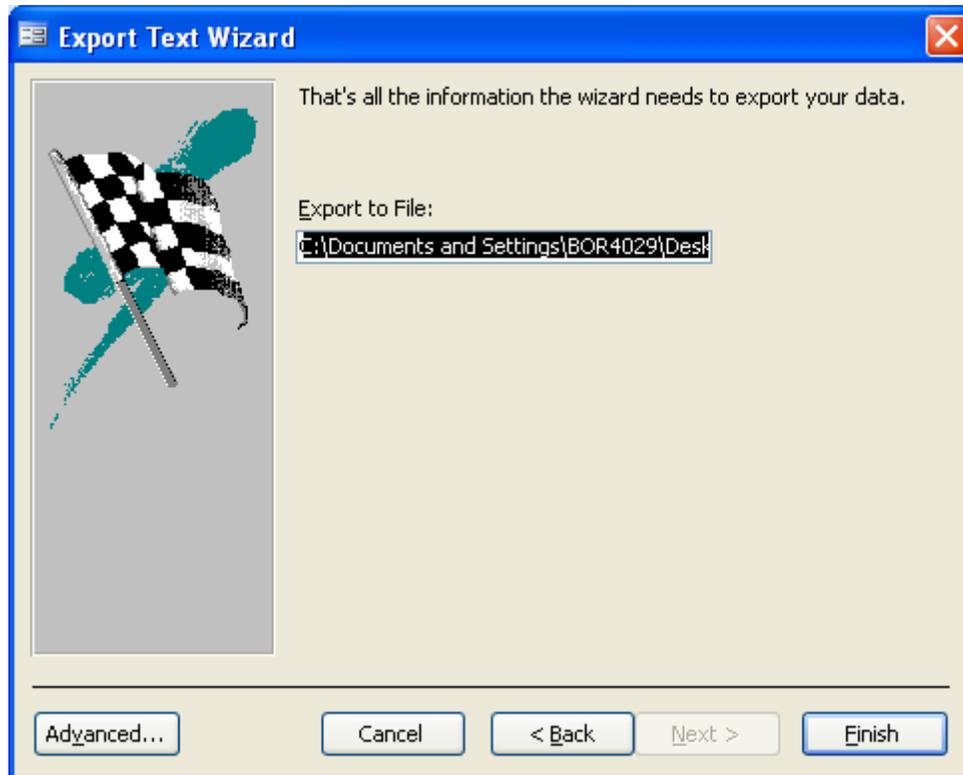
The “Export Text Wizard” selection box appears. Make sure the “Fixed Width” box is selected. Click “Next”.



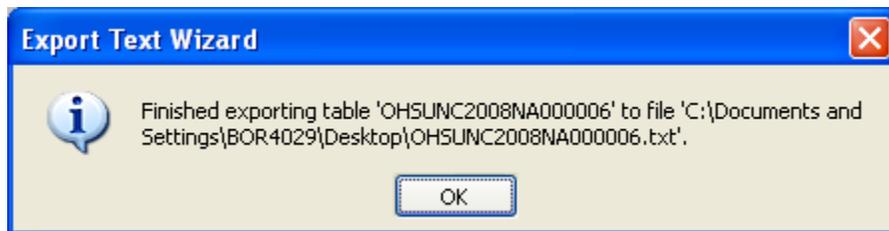
The “Export Text Wizard” has installed the changes you made to the “Field Size” to the Field Names and correctly places field breaks where they occur. Click “Next”



Chose the proper directory of where you want to store your text file, give it a proper name and click “Finish”.

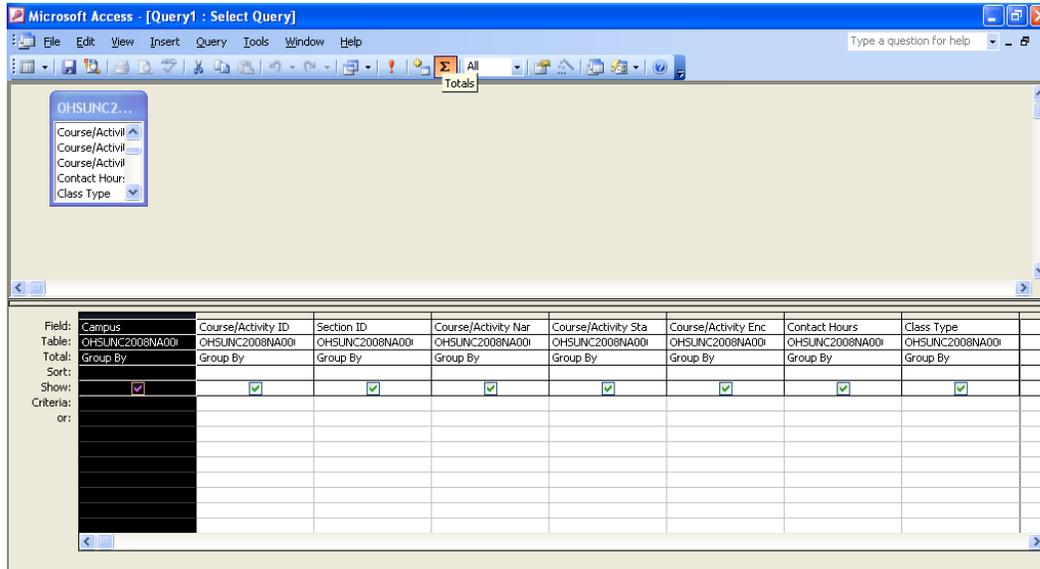


You have successfully finished exporting your text file to the following directory. Click “Close”.

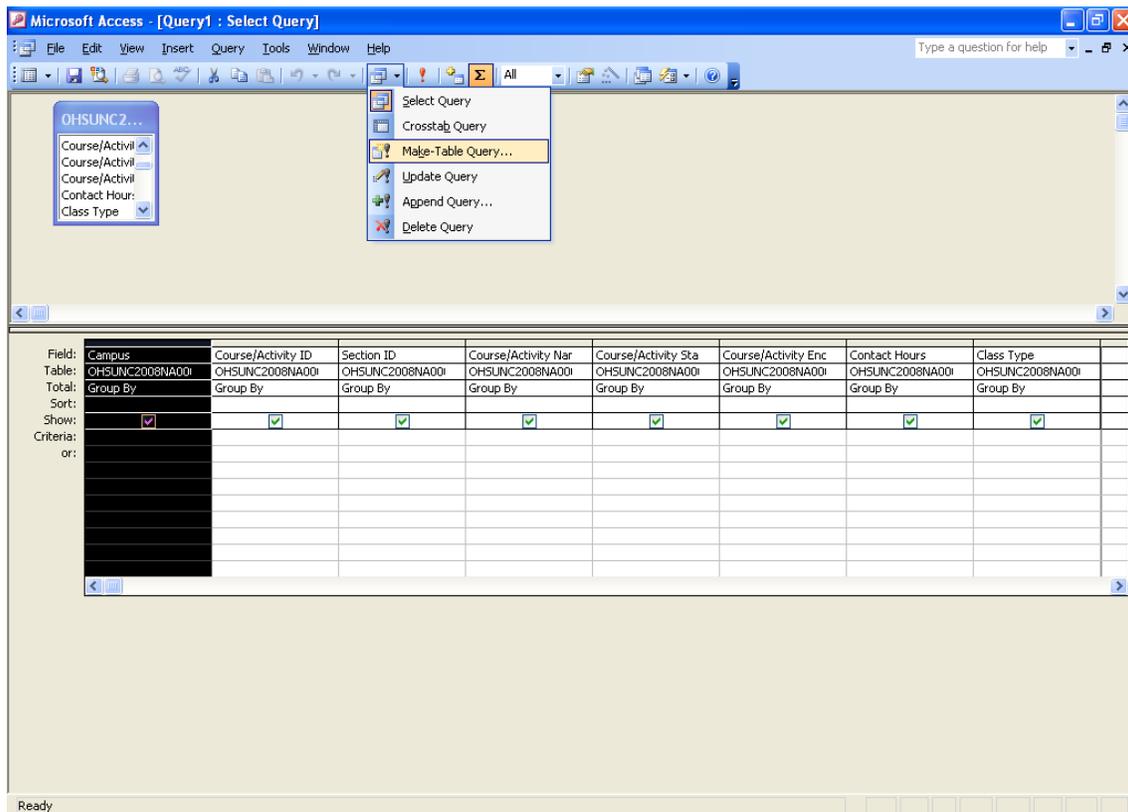


Using Notepad (or Textpad) open up the latest text file, insert the header record and click save. You are now ready to submit to HEL.

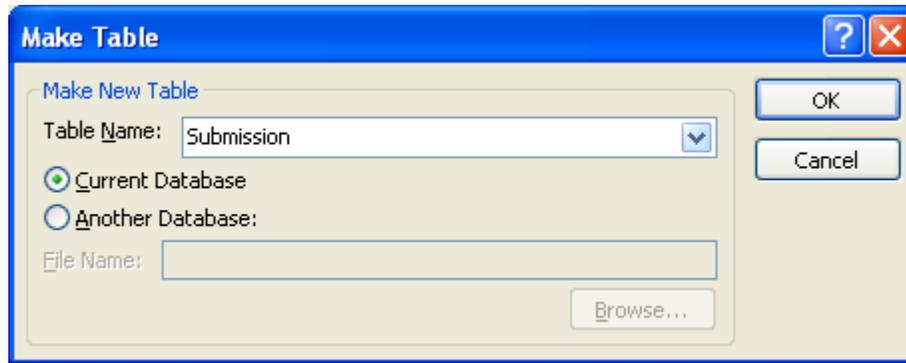
After selecting which fields you would like in your table, click on the Σ (the summation sign) and click “Run” (red exclamation point).



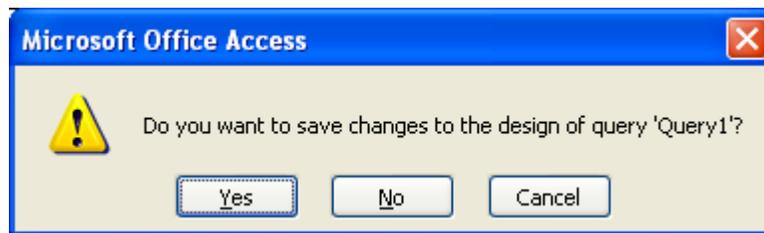
If you are not an SQL aficionado, the easiest way for you to bypass writing an SQL query to assign the correct formats to numeric data is to take your query that you just created and in the “Design View” of that query click on “Query Type” and select “Make-Table Query”.



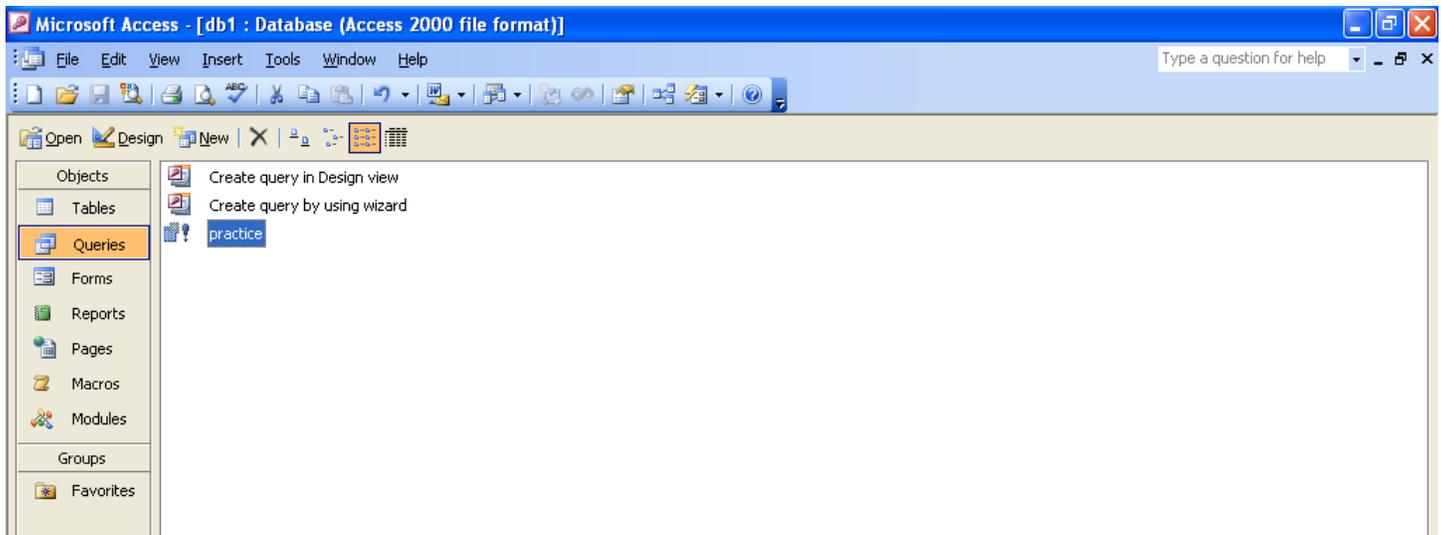
In the “Make Table” selection box, simply type in a Table Name and make sure the “Current Database” option is selected. Click “OK”



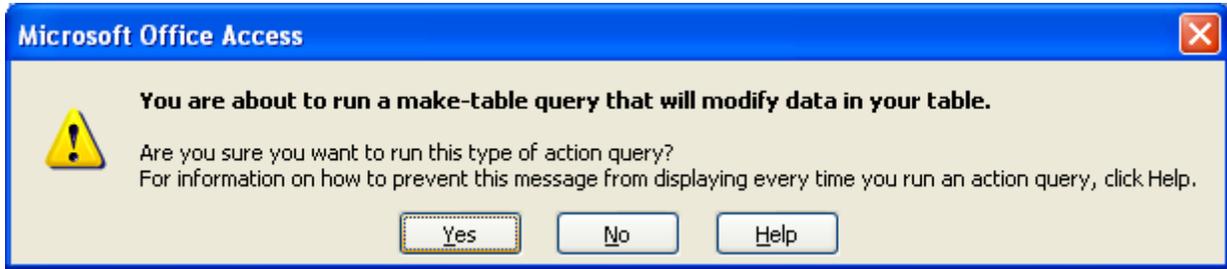
Still in the “Design View” of the Query you just created, go to “File” and click “Save”. Or you can simply close the query, but be sure to click “Yes” when it asks you to save changes to that query.



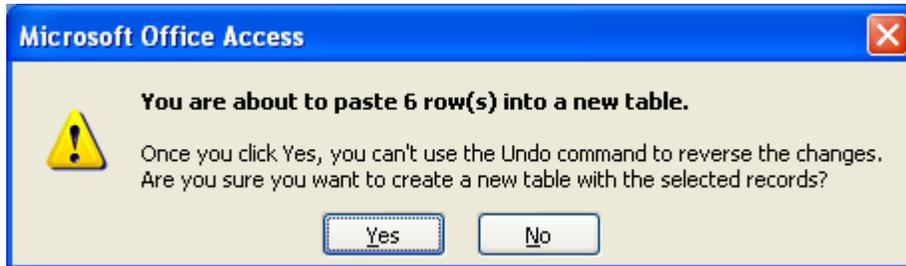
In order to run your “Make Table” query, you simple need to double click on that query name.



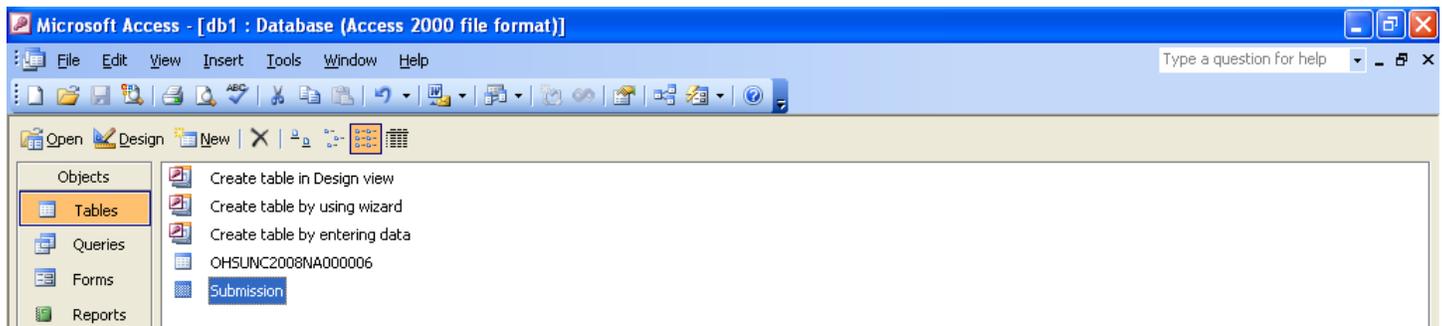
Microsoft Access prompt notifying you that you are about to run a “Make Table” query that will modify data in your table and if you are sure you want to run this action query. Click “Yes”



Another prompt notifying that a certain number of rows are to be pasted into a new table appears, Click "Yes".



The table that you just created from your customized query now shows up in your Access Database.



Next step is to define the “Field Size” of each data field for this new table. See previous section on this topic. You can input the numbers directly from the HEI file description directly into this form. For example, in this scenario the Campus field size should be changed from 255 characters to 4 characters, as well as every other field to adhere to the HEI file description. After changing the “Field Size” for each data field simply export this table as a text document. Then be sure to add the Header Record (see previous section on this topic) to this particular text file and you are ready to submit to HEI.