# Producing Pivot Tables for Progress Monitoring

Applies To

This Tip Sheet describes how to produce pivot tables using the Main Module of the Take2 Access edition. SQL Server sites need to use the Take2 ODBC Statistical Reporting utility.

Overview

The Tip Sheet describes a tool in Take2 that produces pivot tables and accompanying audit schedules. This will assist you in developing your investment plans and validating Progress Monitoring Reports (PMRs) produced by TEC

A pivot table is a cross-tabulation of data in Excel format with sub-totals and totals that provide summary information such as the total number of enrolments broken down by age and gender. You can select what column and row headings you want to use, and also filter the set of data to be included. For example you could filter so that only enrolments of female students were counted.
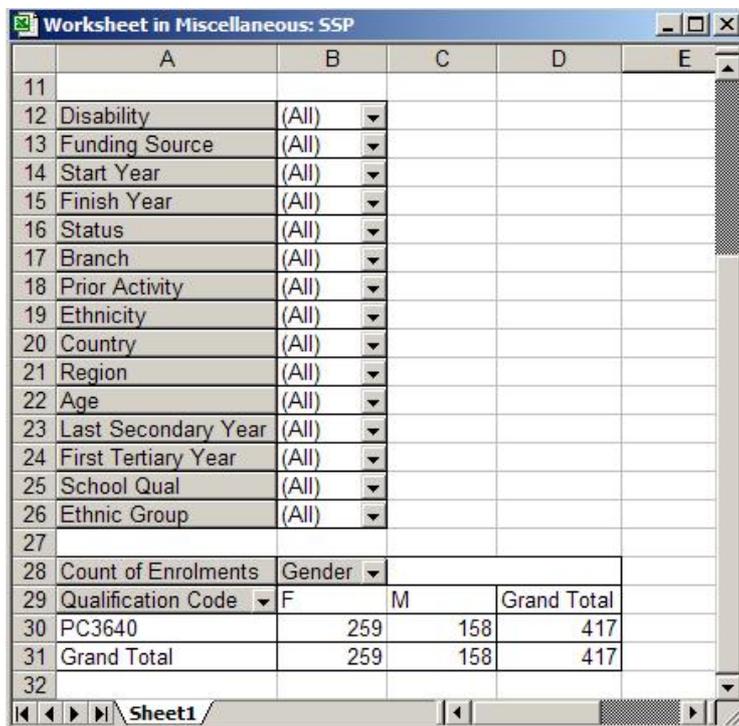
The audit schedule is an Excel workbook with a list of the individual student enrolments that are counted in the totals of the pivot table. It allows you to check that the correct data is being summarized.

Prerequisite Data

For the pivot tables to produce accurate summary data you must have entered accurate and complete data in Take2. In particular you must:

1. Ensure that a student enrolled in a multi-stage qualification has <u>only one</u> qualification enrolment record. The only exception to this requirement would be if a student restarted a qualification after a gap of several years of more.

2. Ensure that all students who finish studying with you for whatever reason have a *Finish Studies Date* entered. This is the date the student ceases studying, either because they withdraw, they complete the qualification or, having not completed the qualification, they decide not to return at the end of their programme of studies.

3. Ensure that all students who complete the qualification have the necessary tick and date of completion.

4. Ensure that all qualifications have the attributes highlighted below.

Pivot Tables

Currently three pivot tables are available from the *SSP* form, opened from the *Exports & Reports* menu in the Main Module. Each pivot table provides summary information for a specific objective type:

1. Equal Education Opportunity (EEO) – gender, age, ethnicity[1], disability, prior activity, etc. of students enrolled in qualifications.

2. Qualification Completion – data relevant to section 3.2 of the Progress Monitoring Report.

3. Course Completion – data relevant to section 3.1 of the Progress Monitoring Report.

Select the objective type and any required filters. Note that the *Funding Source* filter is applied only to the Qualification enrolment funding source.

Now select a date range. This is problematical because the Progress Monitoring Methodology published by TEC is not very clear. However our current understanding is that EEO is measured by SDR year, qualification completion by start date (i.e. "cohort"), and course completion by SDR year. Click Filter.

Depending on the volume of records there may be a delay before you see a prompt asking whether you wish to generate an audit report. We suggest that you do so.
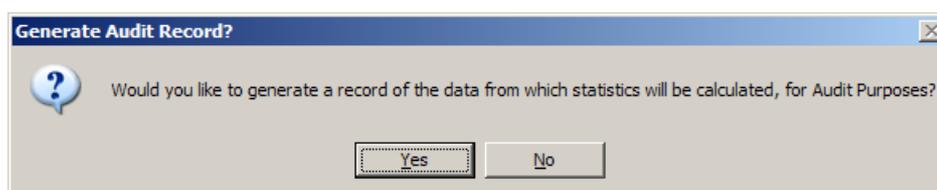
The audit report is saved as an Excel workbook file which can be opened separately – see below.

Next Excel opens and displays the relevant pivot table. Before using the pivot table you must refresh it. Do this by clicking the red exclamation mark on the *Pivot Table* toolbar or on the menu opened by clicking *Data* on the Excel main menu.

EEO Pivot Table

This pivot table is the most straightforward. A couple of notes:

1. Age is measured between the student's date of birth and the date their qualification enrolment started.

2. Start Year is the year of the qualification enrolment start date.

3. If you want to count total response ethnicity from the pivot table rather than from the audit schedule you need to do a bit of work as shown below. Remember that if any of your students have given more than one ethnicity then the total percentage will be greater than 100. Remember also that the pivot table counts students' qualification enrolments – i.e. a head count. The *EFTS Summarisation* report available from the *Exports & Reports* menu in the Main Module counts EFTS. The two sets of figures will only ever match if your students all generate the same EFTS value for each qualification enrolment.

First pivot for Ethnic Group 1.

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[1] The *EFTS Summarisation* report available from the *Exports & Reports* menu in the Main Module provides more accessible ethnicity reporting. See section 12.4 of the Take2 User Manual.

10	Age	(All)		
11	Branch	(All)		
12	Country	(All)		
13	Disability	(All)		
14	Ethnic Group 2	(All)		
15	Ethnic Group 3	(All)		
16	Ethnicity 1 (3 digit)	(All)		
17	Ethnicity 2 (3 digit)	(All)		
18	Ethnicity 3 (3 digit)	(All)		
19	Finish Year	(All)		
20	Gender	(All)		
21	First Tertiary Year	(All)		
22	Last Secondary Year	(All)		
23	Offered Qual Code	(All)		
24	Prior Activity	(All)		
25	Prioritised Ethnic Group	(All)		
26	Priority Ethnicity (2 digit)	(All)		
27	Qualification Enrolment Funding Source	01		
28	Region	(All)		
29	School Qual	(All)		
30	Site Code	(All)		
31	Start Year	(All)		
32	Status	(All)		
33				
34	Count of Enrolments	Ethnic Group 1		
35	Qualification Code	European	Mäori	Grand Total
36	PC1234	1	1	2
37	Grand Total	1	1	2

Count the number for each group and make a note of the grand total.

In the example above we have:

European	1
Maori	1
Grand Total	2

Now pivot by Ethnic Group 2.

10	Age	(All)	▼		
11	Branch	(All)	▼		
12	Country	(All)	▼		
13	Disability	(All)	▼		
14	Ethnic Group 1	(All)	▼		
15	Ethnic Group 3	(All)	▼		
16	Ethnicity 1 (3 digit)	(All)	▼		
17	Ethnicity 2 (3 digit)	(All)	▼		
18	Ethnicity 3 (3 digit)	(All)	▼		
19	Finish Year	(All)	▼		
20	Gender	(All)	▼		
21	First Tertiary Year	(All)	▼		
22	Last Secondary Year	(All)	▼		
23	Offered Qual Code	(All)	▼		
24	Prior Activity	(All)	▼		
25	Prioritised Ethnic Group	(All)	▼		
26	Priority Ethnicity (2 digit)	(All)	▼		
27	Qualification Enrolment Funding Source	01	▼		
28	Region	(All)	▼		
29	School Qual	(All)	▼		
30	Site Code	(All)	▼		
31	Start Year	(All)	▼		
32	Status	(All)	▼		
33					
34	Count of Enrolments	Ethnic Group 2 ▼			
35	Qualification Code ▼	Asian		Māori	Grand Total
36	PC1234	1		1	2
37	Grand Total	1		1	2

Add new group values but don't change the grand total.

Asian	1
European	1
Maori	1+1 =2
Grand Total	2

Now pivot by Ethnic Group 3.

9			
10	Age	(All)	
11	Branch	(All)	
12	Country	(All)	
13	Disability	(All)	
14	Ethnic Group 1	(All)	
15	Ethnic Group 2	(All)	
16	Ethnicity 1 (3 digit)	(All)	
17	Ethnicity 2 (3 digit)	(All)	
18	Ethnicity 3 (3 digit)	(All)	
19	Finish Year	(All)	
20	Gender	(All)	
21	First Tertiary Year	(All)	
22	Last Secondary Year	(All)	
23	Offered Qual Code	(All)	
24	Prior Activity	(All)	
25	Prioritised Ethnic Group	(All)	
26	Priority Ethnicity (2 digit)	(All)	
27	Qualification Enrolment Funding Source	01	
28	Region	(All)	
29	School Qual	(All)	
30	Site Code	(All)	
31	Start Year	(All)	
32	Status	(All)	
33			

		(blank)	Pacific Peoples	Grand Total
34	Count of Enrolments	Ethnic Group 3		
35	Qualification Code			
36	PC1234	1	1	2
37	Grand Total	1	1	2
38				

Add new group values but don't change the grand total. Don't count "(blank)" values.

Asian	1
European	1
Maori	2
Pacific Peoples	1
Grand Total	2

Now work out the percentages using the grand total as the divisor.

Asian	1/2 = 50%
European	1/2 = 50%
Maori	2/2 = 100%
Pacific Peoples	1/2 = 50%

Qualification Completion Pivot Table

This pivot table counts qualification enrolments and can be used to report qualification completions. TEC's Progress Monitoring Methodology currently describes the determination of qualification completion ratios in an unclear and sometimes ambiguous manner. It is obvious also that the actual Progress Monitoring reports produced by TEC relating to qualification completions are inaccurate.

The problem for TEC is that they rely on the SDR data to try and determine the two numbers required to produce a qualification completion ratio: namely "cohort", being a count of qualification enrolments and "completions", being a count of qualification completions.

The SDR data, by TEC's admission, does not reliably report these numbers.

Our advice, therefore, is that you should calculate your qualification completion ratio using the qualification completion pivot table as shown below.

1. Select a qualification enrolment start date range that covers the required years.

2. Filter for the "01" funding source.

3. Click Filter.

4. Save the audit report. You can use the audit report internally to check that the correct data is being reported. You can also use the audit report to challenge TEC if they come up with substantially different figures.

5. Refresh the pivot table and, if you believe it relevant, filter *EFTS Threshold* for "Y". This is one area where TEC's PMR Methodology is very unclear and so it is your choice whether you want to use the filter.

6. Arrange to pivot table to show *Start Year* as the row heading and *Complete in Period* as the column heading.

42	Qualification Enrolment Funding Source	(All)				
43	Region	(All)				
44	Register Level	(All)				
45	School Qual	(All)				
46	Site Code	(All)				
47	Status	(All)				
48						
49	Count of Enrolments	Complete In Period				
50	Start Year	(blank)	A	C	Grand Total	
51	2005	1		2	3	
52	2006	1	1		2	
53	Grand Total	2	1	2	5	
54						

7. The Grand Total is the cohort number and the Complete in Period values are the completions (see key below). Use these values to determine qualification completion ratios.

Complete in Period Values

A – Qualification has EFTS value of less than or equal to 1 and completion was within two years.

B – Qualification has EFTS value of less than or equal to 1 and completion was within five years.

C – Qualification has EFTS value of greater than 1 and completion was within five years.

Blank – Either the qualification has not been completed or it was completed after five years.

Course Completion Pivot Table

This pivot table counts qualification enrolments and for each qualification completion the related course completions. You must filter for a specific SDR year.

The pivot table can be used to produce successful course completion rates. Note – only "01" funded course enrolments with an EFTS value greater than zero are counted. This means that, if you have other funding sources that are included in the SDR course completion return, then the figures presented in the pivot table will not match those coming out of the SDR.

		Data ▼									
55											
56											
57	Qualification Code ▼	Sum of CC 0	Sum of CC 1	Sum of CC 2	Sum of CC 3	Sum of CC 4	Sum of CC 5	Sum of CC 6	Sum of CC 7	Sum of CC 9	Sum of CC Blank
58	PC3174	2	0	243	84	42	0	0	0	0	0
59	Grand Total	2	0	243	84	42	0	0	0	0	0
60											

Sum of CC2 corresponds to TEC's "Successful" whilst *Sum of CC2 + Sum of CC3 + Sum of CC4* corresponds to "Known Result".

Audit Schedules

Each pivot table has its own audit schedule. The audit schedule lists the individual qualification enrolments that are counted in the pivot table. Primarily the audit schedules are there so you can check that the correct totals are being counted but can also be used for additional analysis if you wish. There are some useful trick you can use with the schedules.

1. Place you cursor in cell D1 and select the menu item *Windows, Freeze Panes* so that you can scroll across and down the list without losing the column headings of the students' names.

	G4	▼	*fx* Polytechnic Student		
	Name Box	B	C	D	E
1	Student ID	NSN	Name	Active	Branch	Ge
2	502	102039762	Aardvaark, Britt	Active		M
3	506	101422786	Aardvaark, Anneliese	Active		F
4	514	101623025	Aardvaark, Rose	Active		M

2. Place your cursor in row 1 and select the menu item *Data, Filter, AutoFilter* to be able to filter by the values associated with column headings.

	A	B	C	D	E	F	
1	Student ▼	NSN ▼	Name ▼	Acti ▼	Bran ▼	Gender ▼	
2	502	102039762	Aardvaark, Britt	Active		M	Secor
3	506	101422786	Aardvaark, Anneliese	Active		F	Secor
4	514	101623025	Aardvaark, Rose	Active		M	Polyte

3. Stretch the worksheet divider at the bottom left of the Excel window to reveal an *Ethnicities* worksheet.

43	1644	1521112	Aardvaark, Kın Yat
44	1646	3681126	Aardvaark, Carla
45	1647	101762815	Aardvaark, Hagen

|◄ ◄ ► ►|\ **TempObjectivesSourceCC** / Ethnicities / |◄|

This worksheet lists ethnic and ethnic group frequencies so that you can calculate total response ethnic groups for the full set of qualification enrolments.