Transforming the Collection of Student Information (TCSI)

Roadshow Feedback

August 2018
The Department of Education & Training (DET) and the Department of Human Services (DHS) are working with providers to transform the collection of student information.

The TCSI project

The Department of Education & Training (DET) and the Department of Human Services (DHS) are working with providers to transform the collection of student information.
Roadshow outline

• New data structures
• Understanding your data flows
• Proposed solution – the details
• Timelines for reporting & using data
• Elements to support DHS student payments
• Implementation schedule
• Open discussion and questions
Benefits of the project

What TCSI will offer providers

- RESOLVED PAIN POINTS
- LESS CONFUSING & MORE DIRECT
- TIME SAVING & MORE TIMELY

Benefits of the TCSI Project

For students it will:
- Make DHS student claims simpler
- Improve payment accuracy
- Help maintain their student payment to complete their studies

HEPCAT pain points

- Complex, inflexible file structures
- Only supported on Windows 7
- Doesn’t support flexible work arrangements
- Changes are costly to build into student management systems

HEPCAT is difficult to learn

How it could have been: Semester 1

Gregory is full time

Higher Ed. Data

$0
The discussion papers – what you told us
Data framework – Student

Data framework – Student

- Student
  - True for a student
    - Won’t be different because of a student’s course or units of study

- Student in a course
  - True for a student in a course
    - Can be different because of a student’s courses BUT
      - Won’t be different because of units of study

- Student in a unit of study
  - True for a student in a unit of study
    - Can be different because of a student’s units of study
Data framework – feedback

• The new elements need more explanation
• The case wasn’t made for domestic students overseas
• The data framework has been updated since the roadshow
• Units are reported separately (like courses) and students reported against them
• There are administrative elements (609 and 610) to support revisions of data that are true at a point in time (e.g. citizenship)
### COURSE OF STUDY
- E533 Course of Study Code
- E310 Course of Study Type Code
- E350 Course of Study Load
- E394 Course of Study Name
- E455 Combined Course of Study Indicator

### COURSE
- E533 Course of Study Code**
- E307 Course Code
- E308 Course Name
- E312 Special Course Type Code
- E461 Field of Education Code
- E462 Field of Education Code Supplementary Code
- E596 Standard Course Duration
- E609 Effective From Date
- E610 Effective To Date
# STUDENT

<table>
<thead>
<tr>
<th>Field Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E313</td>
<td>Student Identification Code</td>
</tr>
<tr>
<td>E314</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>E402</td>
<td>Student Family Name</td>
</tr>
<tr>
<td>E403</td>
<td>Student Given Name - First</td>
</tr>
<tr>
<td>E404</td>
<td>Student Given Name - Others</td>
</tr>
<tr>
<td>E410</td>
<td>Residential Address - Street</td>
</tr>
<tr>
<td>E469</td>
<td>Residential Address - Suburb/Town</td>
</tr>
<tr>
<td>E320</td>
<td>Residential Address - Location Code</td>
</tr>
<tr>
<td>E470</td>
<td>Residential Address - State</td>
</tr>
<tr>
<td>E416</td>
<td>Tax File Number</td>
</tr>
<tr>
<td>E488</td>
<td>CHESSN</td>
</tr>
<tr>
<td>E584</td>
<td>Unique Student Identifier</td>
</tr>
<tr>
<td>E315</td>
<td>Gender Code</td>
</tr>
<tr>
<td>E316</td>
<td>Aboriginal and Torres Strait Islander Code</td>
</tr>
<tr>
<td>E346</td>
<td>Country of Birth Code</td>
</tr>
<tr>
<td>E347</td>
<td>Year of Arrival in Australia</td>
</tr>
<tr>
<td>E348</td>
<td>Language Spoken at Home</td>
</tr>
<tr>
<td>E572</td>
<td>Year Left School</td>
</tr>
<tr>
<td>E573/E574</td>
<td>Highest Attainment of Parent/Guardian</td>
</tr>
<tr>
<td>E319</td>
<td>Location Code of Term Residence</td>
</tr>
<tr>
<td>E358</td>
<td>Citizen/Resident Code</td>
</tr>
<tr>
<td>E615</td>
<td>Disability</td>
</tr>
</tbody>
</table>
STUDENT COURSE

STUDENT IN A COURSE
- E313 Student Identification Code
- E307 Course Code
- E534 Course of Study Commencement Date
- E327 New Basis for Admission to Current Course
- E330 Type of Attendance Code
- E632 Australian Tertiary Admission Rank
- E605 Selection Rank
- E620 Highest Attainment
- E560 Credit Used Value
- E561 Prior Study Credit Offered
- E566 Credit Provider Code
- E463 Specialisation Code
- E592 Course Outcome Date
- E599 Course Outcome Status
New elements

• E594: Higher Degree by Research Primary Field of Research Code *(from 2019)*
• E595: Higher Degree by Research Secondary Field of Research Code *(from 2019)*
• E596: Standard Course Duration
• E599: Student Course Outcome Status
• E600: Student Unit of Study Commencement Date
• E601: Student Unit of Study Outcome Date
• E622: Unit of Study Year Long Indicator
• E597: CRICOS code
• E619: Course Assurance Code *(VSL element)*
• E598: Commonwealth Scholarship Amount *(optional in 2020)*
• E623: Research Training Program Stipend Amount *(optional in 2020)*
Replacement elements

- E615: Disability
- E620: Highest attainment
- E632: Australian Tertiary Admission Rank (ATAR)
- E605: Selection Rank
Amended elements

- E327: New basis for admission to current course
- E355: Unit of Study Outcome
- E446: Remission reason code
- E487: Higher Degree by Research Scholarship type
- E560: Credit used value
- E572: Year and Level Left School
- E592: Course completion date
### Minor updates

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E308</td>
<td>Course name</td>
</tr>
<tr>
<td>E319</td>
<td>Term residential address – Location Code</td>
</tr>
<tr>
<td>E320</td>
<td>Permanent Residential Address – Location Code</td>
</tr>
<tr>
<td>E337</td>
<td>Work experience in industry code</td>
</tr>
<tr>
<td>E354</td>
<td>Unit of study code</td>
</tr>
<tr>
<td>E358</td>
<td>Citizen/resident code</td>
</tr>
<tr>
<td>E392</td>
<td>Maximum student contribution code</td>
</tr>
<tr>
<td>E394</td>
<td>Course of study name</td>
</tr>
<tr>
<td>E402</td>
<td>Student Family Name</td>
</tr>
<tr>
<td>E403</td>
<td>Student given name – first</td>
</tr>
<tr>
<td>E404</td>
<td>Student given name – others</td>
</tr>
<tr>
<td>E410</td>
<td>Permanent Residential Address – Street Number/Name</td>
</tr>
<tr>
<td>E469</td>
<td>Permanent Residential address - suburb/town</td>
</tr>
<tr>
<td>E470</td>
<td>Permanent Residential address – state</td>
</tr>
<tr>
<td>E495</td>
<td>Indicative student contribution amount for a Commonwealth supported place</td>
</tr>
<tr>
<td>E496</td>
<td>Indicative tuition fee for a domestic fee-paying place</td>
</tr>
<tr>
<td>E525</td>
<td>Campus Location</td>
</tr>
<tr>
<td>E526</td>
<td>Commonwealth Scholarship status code</td>
</tr>
<tr>
<td>E534</td>
<td>Course of study commencement date</td>
</tr>
<tr>
<td>E538</td>
<td>Commonwealth Scholarship termination reason code</td>
</tr>
<tr>
<td>E545</td>
<td>Commonwealth Scholarship type code</td>
</tr>
<tr>
<td>E551</td>
<td>Summer and Winter school code</td>
</tr>
<tr>
<td>E561</td>
<td>Details of prior study for which credit/RPL was offered</td>
</tr>
<tr>
<td>E566</td>
<td>Credit /status provider code</td>
</tr>
<tr>
<td>E573</td>
<td>Highest educational attainment of parent/guardian 1</td>
</tr>
<tr>
<td>E574</td>
<td>Highest educational attainment of parent/guardian 2</td>
</tr>
<tr>
<td>E593</td>
<td>Higher degree by research end-user engagement code</td>
</tr>
</tbody>
</table>
Data framework – release of the specs

- We will release the data specifications mid-August
- They are not final
- They are designed for IT/data architects
Data framework – release of the specs

• The data specifications don’t exactly mirror the data framework
• This is because of how APIs work
• There are some structures in the government database that don’t need to be reported against (e.g. sessions)
User experience

- Tools
- Systems
- Processes?

Students ➔ Online? paper form?

Provider ➔ HEPCAT
User experience - feedback

- Most experiences were similar but there are differences:
  - between providers; and
  - between different SMS solutions
- Providers have multiple processes & applications to generate & check files
- There are opportunities for TCSI to enable processes outside of HEPCAT
Proposed high level data flow

DATA CHECKING
• Real time, single step validation
• TFN verification
  – good records accepted, errors returned

SMS
[System to system data transfer]
or
Portal
[file/form upload]

Data for student payments

HEIMS
HELP debt transfer to ATO after census date

HEIMS Online
• Data view
• standard reports
Authentication - concern & opportunity

Concerned about multiple authentication tools

Opportunity to rationalise authentication (HITS uses eSAM, USI uses AusKey, TCSI uses PRODA)
High-level solution flows for B2G and Portal

The flow in B2G

- Data passes to HEIMS when complete
- A single error message is returned
- Mismatches reported
- TFN Lookup
- Fields & business rules are checked on all data in the packet
- A subset of validated data will support student payments

The flow behind Portal

- Data passes to HEIMS when complete
- A single error file is returned
- Error messages are kept until the file is processed
- Mismatches reported
- TFN Lookup
- Fields & business rules are checked on all data in the packet
- A subset of validated data will support student payments
Solution design – barriers

- Strong dependence on SMS vendors
- Staff availability and change management
- Funding
- Lack of technical specifications
Solution design – concerns

• Cost of making changes, including IT changes and staff time in testing and resolving problems
• Need significant business process changes
• How student complaints will be managed
• How validations will work for partial data
• Keeping track of what’s been reported/rejected
• Privacy, data security and encryption
• Diversity of internal systems and operations
• How will staff & apps and offers be reported
Solution design – opportunities

- Capacity to share data between agencies, HEPs, and improve transparency for students
- Opportunities to share with State Governments to reduce the reporting burden for providers
- Possible resource savings, opportunities to reallocate resources
- Opportunity to rebuild the SMS
- Opportunity to link systems – PRISMS, ECAF, AVETMISS, HDR-RTP reporting
Solution design – delights

- Streamlined reporting by:
  - reducing duplication between DHS and DET
  - rationalising data elements and data files
  - enabling more logical data structures
- Automation through the B2G link
- A significant reduction in manual handling
- Decommissioning of HEPCAT and improvements to error reporting
How is the B2G Interface looking for you?

B2G Interface

Portal
Managing changes in data

The three main types:

1. Elements you can just update to the latest value (e.g. DOB, names)

2. Elements that we need to know the first and most recent value (e.g. residential address)

3. Elements where we need to reflect what is true for particular points in time (e.g. citizenship)
Revisions - delights & concerns

- Automation through the B2G link
- Improved solutions for revisions

- Lack of clarity about how revisions will work, including revisions to pre-2020 data and how citizenship changes are made
- How validations will work for data that is continually changing and updating
Managing changes in data

The other types:

1. Credit transfer elements that need to be reported for each provider where the credit was earned

2. Elements that can have multiple values at the same time (e.g. course specialisations)
How is the B2G Interface looking for you?

B2G Interface

Portal
Reporting timelines

Event based reporting

- Enrol in Course
- Enrol in Units
- Fees/Help
- Outcome

A Student’s Record

What is data being used for and when

<table>
<thead>
<tr>
<th>Before validation</th>
<th>Before census date</th>
<th>± days after census date</th>
<th>After verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data is used to check a student’s HELP entitlement limits upload.</td>
<td>Students can view their data.</td>
<td>Data is used to transfer HELP debts to the ATO.</td>
<td>Data is compiled into reports for publication.</td>
</tr>
<tr>
<td>Data is used to validate TFN's [like the current TFN]. (Student’s data)</td>
<td>Data is used to calculate payments for VSL providers.</td>
<td>Data are used to record HELP debts against students’ accounts.</td>
<td></td>
</tr>
<tr>
<td>A subset of validated data is used to understand eligibility for payments.</td>
<td></td>
<td></td>
<td>Data is used to reconcile payments for higher education providers.</td>
</tr>
</tbody>
</table>
Reporting timelines - delights & opportunities

• More timely data transfers and spreading of reporting workloads
• Earlier and faster checking of TFNs and student entitlements
• Opportunity for provider to manage data when convenient
• Different reporting requirements for NUHEPs
Reporting timelines - concerns

• The need to make significant business process changes
• Timeframes for students to update details before losing entitlements
• What happens to data for students who withdraw before the census date
• Lack of clarity about the frequency of reporting and when a record is considered complete
Elements to support DHS student payments

**New elements**

- Unit of Study Commencement Date
- Unit of Study Outcome Date
- Standard Course Duration
- Unit of study Year Long Indicator

**Updates to existing elements**

- Course of Study Commencement Date (534)
- Student Course Outcome
- Unit of Study Outcome (355)
DHS Student payments - delights & concerns

- Removes duplication between DET and DHS
- CART is gone!
- Opportunity to incorporate VET data currently provided to DHS
- Concern about the year-long indicator and unit of study commencement date
Implementation

High level schedule

- Co-design work on data requirements and design
  - Jun 2018
- Full solution
  - Jul 2018
  - Aug 2018
  - Sep 2018
- 31 July 2018 – 30 June 2019
  - Collaborative work with all pilot partners to develop, iteratively test and validate the solution

High Level Implementation Timeframe

- Initial phase
  - Mon 2018
  - Initial phase
  - Sep 2018
  - Full implementation
- Development
  - Sep 2018
  - Full implementation
  - Oct 2018
  - Nov 2018
  - Dec 2018
  - Jan 2019
  - Feb 2019
  - Mar 2019
  - Apr 2019
  - May 2019
  - Jun 2019
- SLM AR
  - Jul 2019
  - Pilot use
  - Aug 2019
  - Development
  - Sep 2019
  - Oct 2019
  - Nov 2019
  - Dec 2019
- High level implementation
  - Jan 2020
  - Report
  - Jun 2020
  - Reporting of 2020 course & Student CASP as awards faculty

- Version 1.0
  - Initial phase
  - Sep 2018
  - Full implementation
  - Oct 2018
  - Nov 2018
  - Dec 2018
  - Jan 2019
  - Feb 2019
  - Mar 2019
  - Apr 2019
  - May 2019
  - Jun 2019
- Full development
  - Sep 2018
  - Full implementation
  - Oct 2018
  - Nov 2018
  - Dec 2018
  - Jan 2019
  - Feb 2019
  - Mar 2019
  - Apr 2019
  - May 2019
  - Jun 2019
- Final release
  - Jul 2019
  - Pilot use
  - Aug 2019
  - Development
  - Sep 2019
  - Oct 2019
  - Nov 2019
  - Dec 2019
- Final implementation
  - Jan 2020
  - Report
  - Jun 2020
  - Reporting of 2020 course & Student CASP as awards faculty

- Initial phase
  - Sep 2018
  - Full implementation
  - Oct 2018
  - Nov 2018
  - Dec 2018
  - Jan 2019
  - Feb 2019
  - Mar 2019
  - Apr 2019
  - May 2019
  - Jun 2019
- Development
  - Sep 2018
  - Full implementation
  - Oct 2018
  - Nov 2018
  - Dec 2018
  - Jan 2019
  - Feb 2019
  - Mar 2019
  - Apr 2019
  - May 2019
  - Jun 2019
- Final release
  - Jul 2019
  - Pilot use
  - Aug 2019
  - Development
  - Sep 2019
  - Oct 2019
  - Nov 2019
  - Dec 2019
- Final implementation
  - Jan 2020
  - Report
  - Jun 2020
  - Reporting of 2020 course & Student CASP as awards faculty
Implementation timeframes: barrier & concern

• Tight implementation timeframes are a barrier to effective implementation

• Widespread concerns about implementation timeframes for:
  – software vendors to develop & test products
  – testing with the provider
  – provider staff training
What does agile development look like?

Work should be delivered based on what gives the most value, soonest
## Agile priorities

<table>
<thead>
<tr>
<th>TOP</th>
<th>ADELAIDE</th>
<th>PERTH</th>
<th>MELBOURNE</th>
<th>SYDNEY</th>
<th>CANBERRA</th>
<th>BRISBANE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>Student</td>
<td>Course</td>
<td>Course</td>
<td>Student</td>
<td>Course</td>
<td>Course</td>
</tr>
<tr>
<td>Course</td>
<td>Course</td>
<td>Campus</td>
<td>Campus</td>
<td>Course</td>
<td>Campus</td>
<td>Campus</td>
</tr>
<tr>
<td>Campus</td>
<td>Campus</td>
<td>Student</td>
<td>Student</td>
<td>Student</td>
<td>Student</td>
<td>Student</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIGH</th>
<th>Student in a course</th>
<th>Student in a course</th>
<th>Student in a course</th>
<th>Student in a UoS</th>
<th>Student in a course</th>
<th>Student in a course</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEDIUM</th>
<th>Cth Scholarships</th>
<th>Cth Scholarships</th>
<th>Cth Scholarships</th>
<th>SA-HELP</th>
<th>SA-HELP</th>
<th>Cth Scholarships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apps and Offers</td>
<td>OS-HELP</td>
<td>SA-HELP</td>
<td>Cth Scholarships</td>
<td>Apps and Offers</td>
<td>OS-HELP</td>
<td>SA-HELP</td>
</tr>
<tr>
<td>SA-HELP</td>
<td>SA-HELP</td>
<td>OS-HELP</td>
<td>Apps and Offers</td>
<td>Apps and Offers</td>
<td>OS-HELP</td>
<td>OS-HELP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOWER</th>
<th>OS-HELP</th>
<th>Apps and Offers</th>
<th>Apps and Offers</th>
<th>Campus</th>
<th>Apps and Offers</th>
<th>Apps and Offers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>Dom. students o/s</td>
<td>Staff</td>
<td>Staff</td>
<td>Staff</td>
<td>Staff</td>
<td>Staff</td>
</tr>
<tr>
<td>Dom. students o/s</td>
<td>Staff</td>
<td>Dom. students o/s</td>
<td>Dom. students o/s</td>
<td>Dom. students o/s</td>
<td>Dom. students o/s</td>
<td>Dom. students o/s</td>
</tr>
</tbody>
</table>
Questions?

Is there anything you need from us?
HEIMS Data Collections

HEIMSHelp – TCSI Resources page

HEIMS.datacollections@education.gov.au

Telephone: (02) 6240 7487