Purdue University - Data Cookbook

Definition Standards
(Notevember 2017)

Caution: Definitions in Data Cookbook appear easier to write than they are.

The creation of a good definition takes time and collaboration.

Feedback or questions: datagovernance@purdue.edu
Login: https://purdue.datacookbook.com
Definition Standard:
AUDIENCE: Definition creators, reviewers, approvers

Those who draft, edit, review, and/or approve Data Cookbook content.

Functional data owners review and approve the definitions ensuring accuracy, completeness and adherence to the standards.

Data Cookbook is the authoritative metadata source for official Purdue data fields, report and dashboard definitions. All folders labeled ‘Standard’, accessed with Cognos, as well as management dashboards and data digest dashboards will be documented in Data Cookbook. As the Transformation project progresses, standard reports and dashboards will be defined in Cookbook as well.

This will ensure that all official reporting and decision-making is done using definitions which have been approved by data owners. These approved definitions will be transparent and accessible via Cognos and Tableau.

Please be aware that as definition creators, reviewers, approvers, you have a role in the Workflow functionality and will receive emails from Data Cookbook as part of the process. Emails are caught in the Spam folder, so will need to Release and Add to Safelist the first time.

TRAINING DOCUMENTS LIBRARY

(All Users)
- Quick Reference for Getting Started

(Definition Authors)
- Standards for Creating a Definition (One-page quick reference)
- Standards for Creating a Definition

(Specification Authors)
- Standards for Creating a Specification (to be developed yet)
- Standards for Creating an Info Request (to be developed yet)

Questions/Feedback:

datagovernance@purdue.edu
ONE-PAGE DEFINITION QUICK REFERENCE

LAUNCH DATA COOKBOOK: https://purdue.datacookbook.com

Steps:

1. Click on the Definitions tab

2. Select Create a Definition

3. Definition Naming Convention (see full document on Definition Standards for more detail)
   a. Enter name and search for similar definitions already in Cookbook
   b. Review Community definitions for ideas
   c. Avoid numbers and special characters (common abbreviations allowed)
   d. Ensure name is: Data Element, Descriptor, Functional Area (Optional)

Examples:
   • Full Time Equivalent, Student
   • Full Time Equivalent, Employee, HR
   • Full Time Part Time, IPEDS, Student
   • Race/Ethnicity, Student
   • Race/Ethnicity, Employee

4. Definition Paragraph Standards
   a. Complete sentences
   b. Paragraph 1 – understandable to those not familiar with the topic, no jargon
   c. Paragraph 2 – sample values
   d. Paragraph 3 – context, cautions, standard uses or misuses
   e. Paragraph 4 – See: (list links to other Data Cookbook definitions or other web sites)
   f. Paragraph 5 – Keywords: (other words someone might search on for this element)
   g. Paragraph 6 – comments regarding permission, security limitations, if applicable

See: Graduation Rate
Keywords: graduate, degrees conferred, on-time

5. Enter Source, Classification, Responsible Office, skip to Functional Area and enter

6. Hit SAVE to save your work. Hit Submit to move definition to the next stage in Workflow.
   Others will not be able to edit until Submit is selected.

7. Workflow Steps
   Drafting > Functional Area Review > Final Review > Approve
   (Final review and approval by functional data owner)

IF creating a new version of a definition, add text re: changes being made.
Definition Standards

Creating a Definition

Launching Data Cookbook (https://purdue.datacookbook.com)

Workflow
Definitions move from ‘Drafting’ to ‘Functional Area Review’ to ‘Final Review’ and ‘Approved’

Once definitions are ready to move from “Drafting”, other functional area staff can assist in the “Functional Area Review.” Additional edits can be made. From there it moves to the functional data owner for a “Final Review” for accuracy, completeness, and adherence to standards. Additional edits can be made or the definition sent back to “Drafting.” Once the functional data owner considers it complete, s/he hits the “Approve” button.

Drafting a New Functional Definition

Steps:
1. Click on the Definitions tab
2. Select Create a Definition
3. Enter the information for a new definition based on the standards below
   - Name
   - Functional definition
   - Source
   - Classification
   - Responsible Office
   - Functional area

November 10, 2017
4. See the section on ‘Standards for Creating a Functional Definition’ at the end of this document for more detail.

5. To include links: to a URL or to another Data Cookbook definition

**New Definition**

* Name

* Functional definition

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**Census, Student**

Create a New Version

* Name

  Census, Student

* Functional definition

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To use a URL as an additional resource, use the LINK icon. Type common language such as ‘ODS Freeze Calendar’, and make that the link rather than just using the URL.

To link to another definition already in Data Cookbook, use double brackets around the [definition name].

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**Census, Student**

1. Drafting Version 1 New version

Functional Definition:

Point of time that official data are captured for each academic period (summer, fall, spring). This includes enrollment, course registration, retention, instructional activity, schedule offering, demographics, and other student-related information.

The census event is typically done in the third week of fall and spring semesters and near the end of summer semester. Data captured is referred to as ‘frozen’ data. Census dates may vary by campus.

Best practice for report writers is to use census, or ‘frozen’, data to report on longitudinal tracking, peer reporting, statistical analysis, and retention.

See: Census, Financial Aid and ODS Freeze Calendar for Purdue West Lafayette census (and freeze) dates.

Keywords: freeze, FRZ, history, trends.

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When saved, both are clickable links.
6. After entering the new definition, **Save** or **Submit** the information.

**Save button:** To save your work  
**Submit button:** When the person who drafted the definition is ready for the review process to begin, select Submit.

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**ADDING/REMOVING A COLLABORATOR**

A collaborator may be added at either the DRAFTING or FUNCTIONAL AREA REVIEW steps in workflow.

- Comment – the collaborator is able to provide comments on the definition
- Edit – the collaborator is able to edit the definition
- Delegate User Role – the collaborator has the same role as the editor

When adding a collaborator in the workflow, it is for that definition only. You will need to add the collaborator to each definition as needed.

**Steps:**

1. On the Edit definition window (upper right-hand side), click on **Show Workflow**.

2. With the Definition Workflow expanded, click on the **Plus** icon next to Collaborators.
3. The **Add Collaborator** window will open. Determine who and role for the collaborator in this window.

![Add Collaborator Window]

- Click on the **down arrow** and select the individual to be added as a collaborator.
- Determine what the collaborator will be able to do with the definition.
- Add a comment to the collaborator

To remove the collaborator, click on **Show Workflow** to open workflow.

1. Click on the collaborator’s name, under **Collaborators**, you want to remove.

![Collaborators List]

2. Click **Remove Collaborator**

![Remove Collaborator Window]

Once done with updating the definition and it is ready to move to the next stage, scroll to the top of the page and click on the **Submit** button.
**ADDING AN ATTACHMENT (OPTIONAL)**

If there is a document that provides more information about a definition, it can be added as an attachment.

![Image of a definition creation interface](image)

### FUNCTIONAL AREA REVIEW of a Definition

After a definition is created, edited if necessary, and the SUBMIT button is selected, it moves to the next stage, **FUNCTIONAL AREA REVIEW**. There, other(s) with a role for that functional area begin their review of the definition. They may make edits and consider it ready for the functional data owner to do a final review and approve. Or they also can send it back to Drafting and add a comment why it needs more work. They also can Reject it indicating it is not a definition they believe is needed.

#### Options to find Definition(s) Ready for Review

- From email received that a definition is ready to review, use link to definition embedded in email. **OR**
- Use Search box on Home tab or Search box on Browse Definitions tab, if know the field name **OR**
- Go to Definition queue and use the cascading prompts

1. Click on the **Definitions** tab.
2. Select **Definition Queue**.

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3. You can search the list of definitions under the Filter by section or by paging through the list.

Searching the List of Definitions:

a. The top row of the search are cascading prompts. You must select a value in the first search box (Workflow type) to populate the next search box (Workflow definition). And you must select the Workflow definition – select the Current Workflow #: at the top of the list.

b. Stages (Drafting, Functional Area Review, Final Review), can be used to narrow the Search.

c. The second row of the search you can select individually and should filter by Functional Area to narrow the search.

Choose Functional Area

Purdue University

--- Functional Area ---
  -- Purdue University
  -- Admissions
  -- Alumni/University Development
  -- more...

Hide closed objects - check the box to limit to those awaiting further action.

d. Available for action by me – check the box to further limit.
4. By clicking on the Name field or any of the columns, you can change the sort order.

5. Once you have narrowed down your selection, under the **Name** column, click on the definition you wish to edit. This will open the Definition window.

6. Click the **Edit** button.

7. Once the definition has been updated and the changes are ready to be saved, click the **Update** button at the bottom of the page to save the work. The definition may be edited again before moving to the next workflow step which is the Review Complete step.

Once the ‘Review Complete’ is hit, you no longer can make edits as the next person in the review process has ownership.
FINAL REVIEW AND APPROVAL OF WORKFLOW

The Functional Data Owner begins a final review for accuracy, completeness and adherence to standards.

Options include 'Back to Drafting' or Reject it indicating it is not a definition they believe is needed.

Once the Approve button is selected, the definition version # is **Green** when browsing the list of definitions.
NEW VERSION OF A DEFINITION

Later, if additional edits are needed, a new version can be created and it will go through the workflow process again. Use the ‘Add a Comment’ field to document what edits created the need for a new version.

Additional Information

At this time, Tags and Synonyms are not being used.

Tags are used when working on a group of definitions and you want to easily search on that group of definitions. You will see Tags as a sort option on the Browse Definitions. Tags are designed to be temporary.

Synonyms, once used, cannot be used as a Definition Name later. The same functionality is met by using Keywords: in the definition. Any word in the Definition Name or anywhere in the functional definition will be found when a search is done.

If there is a need for either of these, please contact datagovernance@purdue.edu
STANDARDS FOR CREATING A FUNCTIONAL DEFINITION

A functional definition is a description of a particular data element. It contains:

- Functional definition – business language, processes.
- Technical definition – data system, time context, additional technical information.

Many definitions correspond directly to fields in the source system or reporting database(s). Others will be derived by combining multiple fields in some fashion. Still others are a calculation.

Definition Name
A definition name is a word or phrase representing a data element. It can be a field or group of concatenated fields in a database; a derived field; a calculation (i.e., grade point average, etc.); a management metric (i.e., retention rate, etc.).

Name Elements
Definition names should adhere to the following 3-part naming convention, separated by commas:

1. Data Element
2. Descriptor. Further classifies the overarching data element. (Optional)
3. Functional Area. (Optional)

Functional Area is the official list of subject areas within Data Cookbook. Add if doing so delineates how different functional areas use the data element.

List of functional areas in Appendix.

Data Element Only Examples:
- Hire Date
- Course

Data Element with Descriptor Examples
- Employee
- Employee, Faculty
- Employee, Staff
- Credit Hours
- Credit Hours, Credits Attempted
- Credit Hours, Credits Earned

Data Element with Descriptor and Functional Area
- Full Time Equivalent, IPEDS, Human Resources
- Full Time Equivalent, IPEDS, Student
- Retention, Four-Year Graduation Internal, Student
- Retention, Four-Year Graduation IPEDS, Student
**Name Standards**

- Use Title Case - capitalize the first letter of each word, with the exception of short words (e.g., a, the, by, for).
- Omit "A", "An", and "The" from the beginning of the name
- Avoid numbers and special symbols
  Do NOT use underscores, hyphens, dashes, (parentheses are ok). These characters may be ignored in Cookbook search and can turn into garbled text when exported.
  Use complete words. Avoid abbreviations. If a very common abbreviation is used, refer to list of abbreviation exceptions in the Appendix. Examples include:
  - ID: Identifier
  - FTE: Full-time equivalent
  - GPA: Grade point average
  - URL: Uniform resource locator
- Delete leading and trailing white spaces (can occur when cutting and pasting from other sources). Data Cookbook will treat "Tuition Revenue" and "Tuition Revenue" as different definitions.

**Functional Definition – multiple paragraphs**

The [functional definition](#) is the business use of the data element. It should provide uniqueness within a functional area, links to related definitions, examples or values as well as context/perspective that would enable understanding for a person who is unfamiliar with the data.

**Writing a Functional Definition**

Follow these general standards when writing the functional definition/business description:

- Use complete sentences and standard grammar
- Be concise, precise, and specific
- Use business, not technical language
- Words such as university, fall, spring will be lowercase
- Be as exhaustively descriptive as seems relevant
- Avoid emotive language, including persuasion
- Be candid, not sensational
- No part of the name of the data element being defined should be included in the first sentence of the definition (avoid circular references).
- Limited use of abbreviations is recommended. Define a term once and include the abbreviation in parentheses immediately after. For example, “Capacity Utilization Level (CUL)” or “Full-time Equivalent (FTE).”
  Do NOT use underscores, hyphens, dashes, (parentheses are ok). These characters may be ignored in Cookbook search and can turn into garbled text when exported. If copy/pasting from Excel, be aware of forced line breaks (when alt + enter is used in a cell instead of Excels wrap text function) this creates a hard line break in Cookbook and will cause the definition to split into multiple lines and cells when exported to CSV. It is best to turn off text wrap and copy the text from the Formula Bar.
Definition Standards

- Special symbols may be used in a definition, but must be preceded by the name of the symbol followed by the symbol in parentheses. For example, “Percentage of the difference between 100 percent (%) Occupancy and the...”

- Avoid using jargon and highly technical details. Those are included in the technical definition.

- The first time you refer to a related data element definition, hyperlink to that definition. Use double brackets around the related element. Ex. Graduation Rate [[Retention Rate, Student ]] or Academic Year, Student [[Academic Period]]

- Deviation from these standards is allowed if adds to the ease or accuracy of understanding.

First paragraph – business definition, understandable, no jargon

Concise business explanation of the element, written in common language, for someone unfamiliar with the element.

For example, the definition for “Academic Period” would appear as follows:

*Period of time during which formal instruction occurs.*

[NOTE: Depending upon how we use integration with Cognos/Tableau, the first sentence may be visible so needs to be clear and concise.]

Second paragraph – sample of valid values or reference to list of values

List examples of the valid values/descriptions. Describe how the data element is used. May include a hyperlink to the authoritative source of valid values.

List of definition values or validation table

- If there are only 10 values or fewer, a list of those values will appear with the following heading:

  A list of common <definition name> codes and descriptions are:

  “Fiscal Year Period” displays as the fiscal year-quarter. Current values within the Finance/HR systems (SAP) are:

  ‘2016-03’ for July, August, September of 2016

  “Academic Period” displays as the first four digits of the calendar year, except for fall term which is the subsequent year. The last two digits represent the semester. Current valid values within Student Systems (Banner) are:
‘201630’ represents summer 2016
‘201710’ represents fall 2016
‘201720’ represents spring 2017

Alternatively, if there are more than 10 values, or if the values change regularly, reference the validation table.

**Third paragraph – context, cautions, standard uses or misuses**
Additional information, such as cautions, context, common misinterpretations, historical changes in values or use, how it can be sorted or grouped. Also include information regarding other related data elements. If the term created has the same base term but a different term modifier or organization from another definition, refer to the similar term in the paragraph. Include the hyperlink to the similar term.

**Fourth paragraph – See: links to other Data Cookbook definitions**

![Sponsored Program Award](image)

Grant or contract funding from sponsoring entities that support research, including Agriculture research programs, instruction, extension activities, assistantships, and fellowships. Awards can be reported by academic or Discovery Park units.

Awards may be received from outside sponsoring agencies such as the federal government, state and local governments, foreign governments, industrial and foundations, other universities, national laboratories, along with Purdue Research Foundation.

The proposal, award life cycle, and post award processes are facilitated by [Sponsored Program Services](#).

[See: Sponsored Program Proposal, Sponsored Program Expenditures](#)

**Fifth paragraph – Keywords: other words someone might use to search**
Consider what other keywords someone less familiar with the topic might use to search for this element. Including these in the functional definition will allow a search to identify it as possible match.

Add a sentence that says: Keywords: <synonym, synonym>
Note: lowercase unless a personal noun
Veteran, Student

**Functional Definition:**

Students who self report military service on the admissions application or add it later to their student record. The student record includes military dependents who qualify for veteran benefits. All aspects of veteran support, services, and benefits are managed by the Veteran Success Center.

**Keywords:** GI, Yellow Ribbon, soldier, survivor, warrior, Army, Navy, Marines, Coast Guard, Air Force, reserves.

**Sixth paragraph – Security, permissions (if applicable)**

Comments regarding permission, security limitations if applicable.

This is the end of the functional definition.

**Source of Definition**

Source of the definition, as opposed to the source of the data element. The majority will use the default of ‘Institutional Definition, indicating it is a Purdue definition.

Other options are external sources of definitions such as ICHE or IPEDS and xxx. If additional external sources are needed in the drop-down, please contact:

Institutional Data Governance Program Manager at:

datagovernance@purdue.edu

**Classification (Purdue-Required field)**

Under the University’s Data Classification and Governance Policy, Purdue University data will be reviewed on a periodic basis and classified to its use, sensitivity and importance to the University and in compliance with federal and/or state laws.

The three levels of data classification are:

Public, Sensitive, or Restricted

**Public Information: open to the general public:** defined as information with no existing local, national or international legal restrictions on access.

Example: Course Catalog
Sensitive Information: access must be guarded due to proprietary, ethical or privacy considerations. This classification applies even though there may not be a civil statute requiring this protection.

Example:
- Birth date
- Ethnicity

Restricted Information: legally protected by state or federal statutes, policies or regulations. This level also represents information that isn't legally protected, but for which the information owner has opted to restrict access.

Example:
- Student’s academic records (protected by FERPA)
- Social Security number

Additional information can be found at:
https://www.purdue.edu/securepurdue/policies/dataConfident/dataclassif.html
http://www.purdue.edu/registrar/currentStudents/students/personalDirectory.html

The University is permitted to release certain information about a student without the student's expressed permission. This information is called Personal Directory Information and includes:

- name
- e-mail address
- local and home address and phone number
- college/school
- program of study
- classification
- credit hour load
- dates of attendance; degrees, awards, and honors received
- participation in activities and sports
- And weight, height and position of athletic team members.

Students may request in person, with photo identification, at the Office of the Registrar that all of their directory information be restricted. For these students, NO INFORMATION is released without the students' written consent.

Responsible Office
Office to contact for additional information. If additional offices are needed in the drop-down, please contact:

Institutional Data Governance Program Manager at:
datagovernance@purdue.edu

SKIP over the Technical Information section – NOT implementing yet.
**Tags**

A tag is used to quickly group definitions together for a purpose determined by a Cookbook user. Perhaps a data manager is writing a set of definitions for biographical/demographical attributes and wants to group the definitions together while she works on them. Assigning a tag “bio/demo” to each definition would make it easy for her to retrieve her set and get to work.

Tags are ungoverned and informal. As a courtesy, delete your tags when your project has finished. The Data Cookbook administrator may periodically remove outdated tags. If you have a use for Tags, please contact datagovernance@purdue.edu

**Functional Areas**

Functional subject area(s) of the data element.

If unsure of the functional area, use Unassigned. If additional functional areas are needed in the drop-down, please contact:

Institutional Data Governance Program Manager at:

datagovernance@purdue.edu
### Appendices

#### A. Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approver</td>
<td>Functional data owner role responsible for review and approval to put a data element, specification into production</td>
</tr>
<tr>
<td>Data Classification</td>
<td>Displays the level of sensitivity (public, sensitive, restricted). These were developed by Purdue data stewards. Additional information can be found at: <a href="https://www.purdue.edu/securepurdue/policies/dataConfident/dataclassif.html">https://www.purdue.edu/securepurdue/policies/dataConfident/dataclassif.html</a> <a href="http://www.purdue.edu/registrar/currentStudents/students/personalDirectory.html">http://www.purdue.edu/registrar/currentStudents/students/personalDirectory.html</a></td>
</tr>
<tr>
<td>Data System</td>
<td>Not implemented at this time for Definition creation. Will be used when Specifications are entered.</td>
</tr>
<tr>
<td>Editor</td>
<td>Role with access to edit a definition or specification.</td>
</tr>
<tr>
<td>Functional Area</td>
<td>Subject area</td>
</tr>
<tr>
<td>Functional Definition</td>
<td>Multi-paragraph explanation, conceptual description, list of values, cautions and any specific access requirements re: a data element.</td>
</tr>
<tr>
<td>Functional Data Owner</td>
<td>Person (or designee) responsible for data in that functional/subject area. Responsible for the collection of accurate, complete data and accompanying audits to maintain data quality and integrity.</td>
</tr>
<tr>
<td>Specification</td>
<td>Any standard report or dashboard. Sometimes referred to as ‘BI content’</td>
</tr>
<tr>
<td>Technical Definition</td>
<td>Not implemented at this time</td>
</tr>
<tr>
<td>Workflow</td>
<td>Process to create, edit, review and approve a Data Cookbook definition. Will also be used for Specifications and Info Requests</td>
</tr>
</tbody>
</table>

#### B. Abbreviation Exceptions List

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL</td>
<td>Capacity Utilization Limit</td>
</tr>
<tr>
<td>FTE</td>
<td>Full-Time Equivalent</td>
</tr>
<tr>
<td>GPA</td>
<td>Grade Point Average</td>
</tr>
<tr>
<td>ID</td>
<td>Identification</td>
</tr>
<tr>
<td>URL</td>
<td>Universal Resource Locator</td>
</tr>
<tr>
<td>URM</td>
<td>Underrepresented Minority</td>
</tr>
<tr>
<td>WBSE</td>
<td>Work Breakdown Structure Element</td>
</tr>
</tbody>
</table>

#### C. Additional Tips

<table>
<thead>
<tr>
<th>Tip</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding words to Chrome dictionary</td>
<td>When in Chrome, type the word (such as FTE, unduplicated), right click and “Add to Dictionary” to stop it from marking it as a misspelling.</td>
</tr>
<tr>
<td>Right click to open a new window</td>
<td>Open a new window to avoid losing your place in Cookbook or closing it inadvertently</td>
</tr>
<tr>
<td>Log out of Browser</td>
<td>To totally log out of Data Cookbook, need to close browser as well as Data Cookbook. This is a best practice.</td>
</tr>
</tbody>
</table>