

DATA WAREHOUSE

STUDENT DATA USER GROUP

MARCH 9, 2023

Remote meeting reminders

- Please turn off your video function, and make sure you are on Mute.
- Please **enter your questions in the chat function**. We will pause periodically during today's meeting for comments and questions. You can also use the "raise hand" reaction, so someone on our team can recognize you.

Agenda

- ❑ Term Snapshots
- ❑ Recent changes to warehouse tables and reports
- ❑ Reg Status Category & Operative Credits (revisited)
- ❑ Query demo and Listagg usage
- ❑ Q&A and Wrap-up

Term Snapshots

The following term snapshots are available or planned:

Fall 2022

- ✓ Student Records Fall 2022 Final snapshot: 1/28/2023
- ✓ Financial Aid AidYr 2223, Fall 2022 Final snapshot: 1/28/2023
- ✓ DGW Fall 2022 Final snapshot: 2/10/2023

Spring 2023

- ✓ Student Records Spring 2023 Census snapshot: 2/27/2023
- Student Records Spring 2023 Final snapshot: 6/15/2023
- Financial Aid AidYr 2223, Spring 2023 Final snapshot: 6/15/2023
- DGW Spring 2023 Final snapshot: 6/15/2023

Recent Changes in DW tables & reports

Tables

- ✓ minor data cleanups: CRSE_SECTION, Site in ST_DEGREE_TERM, reg_status/category in ST_ENROLLMENT
- ✓ ST_ADM_INFO: added ADM_MATRIC_DECISION_DATE
The date when the matriculation decision was effective. Source is SARAPPD table.
- ✓ ST_ENROLLMENT: change to keep (some) older term records that haven't rolled to academic history
 - if from 2 or 3 terms ago, and reg_status is one that gets included in Assessment
 - ex) in 202310, an enrollment from 202220 with reg_status='D5'

Recent Changes in DW tables & reports

Reports

Count Students as of Today

Adjusted "registered this term" logic. Originally the custom variable was looking for registered credits > 0. This would miss audits, dissertations, masters or other registration that had 0 Banner CUs.

Adjustment made to look at St Enrollment and look for a registration status category code of R (ST_ENROLLMENT.REG_STATUS_CATEGORY="R").

Revisit: Registration Status Category

In ST_ENROLLMENT: **REG_STATUS_CATEGORY**

- Categorizes all registration status codes:
 - **R ‘Registration’**: **AU** + codes starts with “R”
 - **D ‘Drop’**: **AD, CC, NR** + codes starts with “D”
 - **W ‘Withdraw’**: codes starts with “W”
- Key takeaway – use reg_status_category instead of a list of reg_statuses whenever possible.

Revisit: Operative Credits

In ST_ENROLLMENT : OPERATIVE_CREDITS_BU, OPERATIVE_CREDITS

- Useful for DIS and MST enrollments, and others
- Calculated as:

```
IF REG_CREDIT_BU > 0
THEN REG_CREDIT_BU
ELSE BILLING_CREDITS_BU
```


Revisit: Operative Credits examples

PIDM	TERM	CRN	SECTION_ID	SCHEDULE_TYPE	REGISTERED_CREDIT	REG_STATUS	BILLING_CREDITS	OPERATIVE_CREDITS
424210	202310	19543	PSYC9950032	DIS	0	RE	1	1
114564	202310	22325	IMUN9950112	DIS	0	RE	1	1
38133	202310	19404	ANTH9950009	DIS	0	RE	1	1
94181	202310	17010	GAS9960001	DIS	0	RE	1	1

PIDM	TERM	CRN	SECTION_ID	SCHEDULE_TYPE	REGISTERED_CREDIT	REG_STATUS	BILLING_CREDITS	OPERATIVE_CREDITS
131556	202310	22334	CAMB9900260	MST	0	RE	1	1
129248	202310	18095	MTR6080001	MST	1	RE	1	1

PIDM	TERM	CRN	SECTION_ID	SCHEDULE_TYPE	REGISTERED_CREDIT	REG_STATUS	BILLING_CREDITS	OPERATIVE_CREDITS
146163	202310	12556	ESE5970001	MST	2	RW	2	2
133603	202310	11634	MCS6980630	MST	2	RW	0.25	2

Query examples – using Reg Status Category & Operative Credits vs Registered Credit

How many “Registration” enrollments did we have for 202310?

```
select count(*) from st_enrollment where term='202310' and reg_status_category='R';
```

➤ *135,371 rows*

```
select count(*) from st_enrollment where term='202310' and reg_status_category='R' and operative_credits > 0 ;
```

➤ *115,118 rows (Note: ~20K less rows – the rows with operative_credits=0)*

```
select count(*) from st_enrollment where term='202310' and reg_status_category='R' and registered_credit > 0 ;
```

➤ *112,937 rows*

So, the answer depends on whether you look at operative or registered credits.

Query Demo

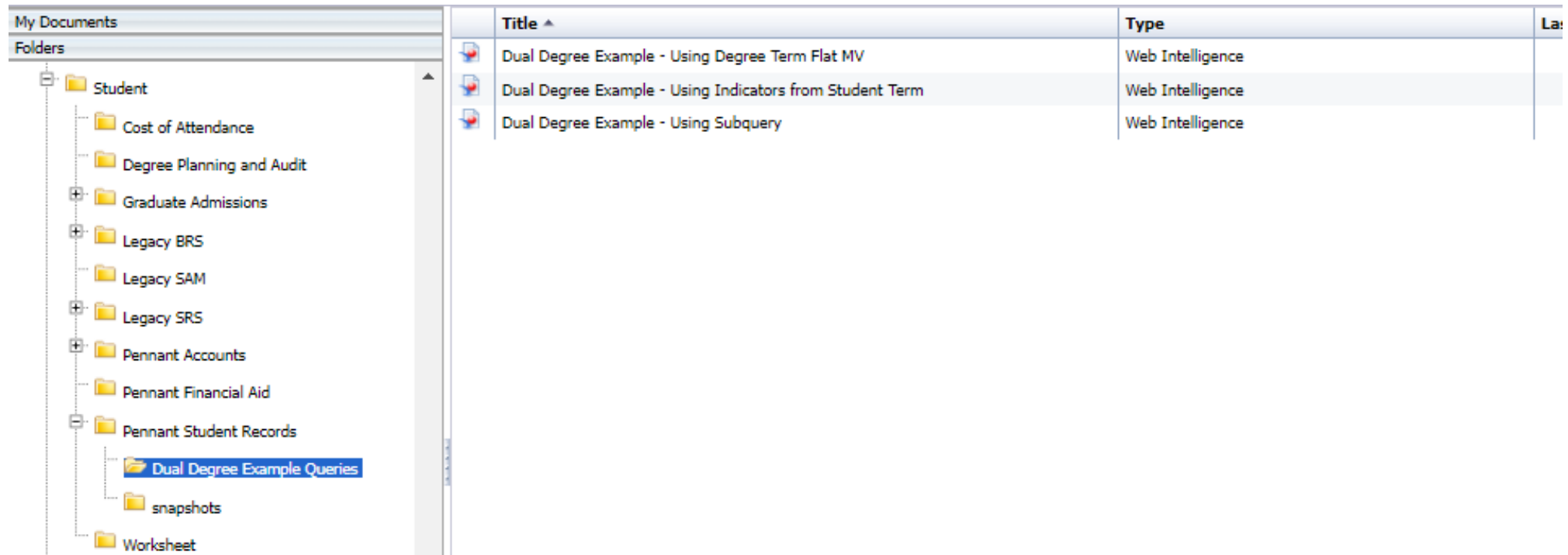
Dual Degree Queries – examples of how to find information on Dual Degree students within the Pennant Student Records universe

Listagg – new objects added to Pennant Student Records universe to help contain output to one row per student

Dual Degree Queries

Examples are located in Public/Student/Pennant Student Records/Dual Degree Example Queries

Designed to be examples are designed to explain options available.



The image shows a screenshot of a file explorer window. On the left, the 'Folders' pane displays a tree structure under 'My Documents'. The 'Pennant Student Records' folder is expanded, and the 'Dual Degree Example Queries' folder is selected and highlighted in blue. The main pane on the right displays a table with three columns: 'Title', 'Type', and 'La:'. The table contains three rows of data, each with a red document icon to the left of the title.

Title ^	Type	La:
Dual Degree Example - Using Degree Term Flat MV	Web Intelligence	
Dual Degree Example - Using Indicators from Student Term	Web Intelligence	
Dual Degree Example - Using Subquery	Web Intelligence	

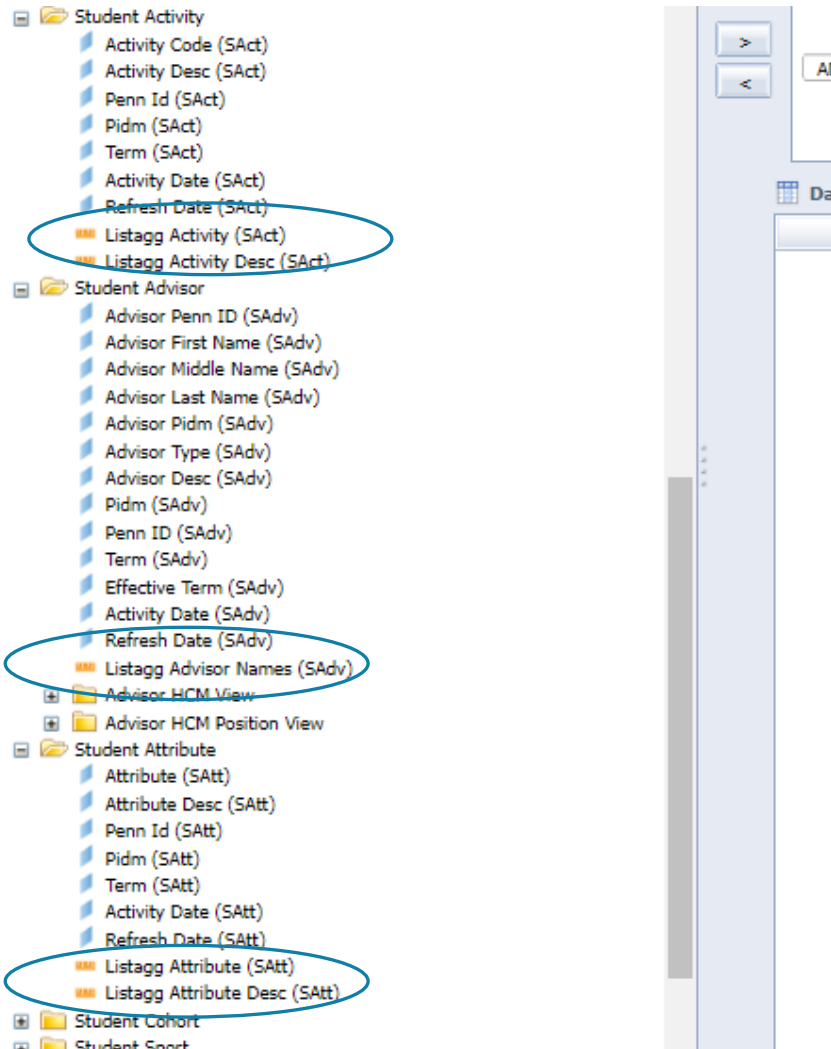
Listagg objects in Pennant Student Records

Listagg - Returns the concatenated input values, separated by a delimiter

Term (CrseAtt)	Course ID (CrseAtt)	Attribute Code (CrseAtt)	Attribute Desc (CrseAtt)
202310	AAMW5020	AHAA	ARTH M Chrono Ancien
202310	AAMW5020	AHAE	ARTH M/N Electiv
202310	AAMW5020	HDAM	GAS PhD AAMW Seminar
202310	AAMW5020	HMS5	ARTH PHD 5000-Level Seminar
202310	AAMW5020	QG	Grade Mode: Grad/Prof, no D
202310	AAMW5020	QP	Grade Mode: Pass/Fail
202310	AAMW5020	QS	Grade Mode: Standard Lettr Grd
202310	AAMW5020	QT	Grade Mode: Multiterm Courses
202310	AAMW5020	QU	Grade Mode: Stsfctry/Unstsftry
202310	AAMW5020	QW	Grade Mode: Wharton Grad
202310	AAMW5120	AAAM	ANTH N CAA
202310	AAMW5120	AAAR	ANTH M Arc
202310	AAMW5120	AANG	ANCH M Gr Rom WI
202310	AAMW5120	ACLA	CLST M Medit Arch Scienc
202310	AAMW5120	EUHS	EAS-COURSE-Humanities
202310	AAMW5120	HDAM	GAS PhD AAMW Seminar
202310	AAMW5120	QG	Grade Mode: Grad/Prof, no D
202310	AAMW5120	QP	Grade Mode: Pass/Fail
202310	AAMW5120	QS	Grade Mode: Standard Lettr Grd
202310	AAMW5120	QT	Grade Mode: Multiterm Courses
202310	AAMW5120	QU	Grade Mode: Stsfctry/Unstsftry
202310	AAMW5120	QW	Grade Mode: Wharton Grad

Term (CrseAtt)	Course ID (CrseAtt)	Listagg Attribute Code (CrseAtt)	Listagg Attribute Desc (CrseAtt)
202310	AAMW5020	AHAA, AHAE, HDAM, HMS5, QG, QP, QS, QT, QU, QW	ARTH M Chrono Ancien, ARTH M/N Electiv, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, Grade Mode: Grad/Prof, no D, Grade Mode: Pass/Fail, Grade Mode: Standard Lettr Grd, Grade Mode: Multiterm Courses, Grade Mode: Stsfctry/Unstsftry, Grade Mode: Wharton Grad
202310	AAMW5120	AAAM, AAAR, AANG, ACLA, EUHS, HDAM, QG, QP, QS, QT, QU, QW	ANTH N CAA, ANTH M Arc, ANCH M Gr Rom WI, CLST M Medit Arch Scienc, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, Grade Mode: Grad/Prof, no D, Grade Mode: Pass/Fail, Grade Mode: Standard Lettr Grd, Grade Mode: Multiterm Courses, Grade Mode: Stsfctry/Unstsftry, Grade Mode: Wharton Grad
202310	AAMW5190	AANG, EUHS, HDAM, QG, QP, QS, QT, QU, QW	ANCH M Gr Rom WI, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, Grade Mode: Grad/Prof, no D, Grade Mode: Pass/Fail, Grade Mode: Standard Lettr Grd, Grade Mode: Multiterm Courses, Grade Mode: Stsfctry/Unstsftry, Grade Mode: Wharton Grad
202310	AAMW5200	AHAA, AHAE, EUHS, HDAM, HMS5, HPA7, QG, QP, QS, QT, QU, QW	ARTH M Chrono Ancien, ARTH M/N Electiv, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA, Grade Mode: Grad/Prof, no D, Grade Mode: Pass/Fail, Grade Mode: Standard Lettr Grd, Grade Mode: Multiterm Courses, Grade Mode: Stsfctry/Unstsftry, Grade Mode: Wharton Grad
202310	AAMW5220	AHAA, AHAE, AHAG, EUHS, HDAM, HMS5, HPA7, QG, QP, QS, QT, QU, QW	ARTH M Chrono Ancien, ARTH M/N Electiv, ARTH M Geo Non-Wes, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA, Grade Mode: Grad/Prof, no D, Grade Mode: Pass/Fail, Grade Mode: Standard Lettr Grd, Grade Mode: Multiterm Courses, Grade Mode: Stsfctry/Unstsftry, Grade Mode: Wharton Grad

Listagg continued



The objects are calculated measures located within each folder after the fields from the table.

If you select the listagg object, then the query being built by Business Objects does a group by function – may slow down a query depending on complexity.

If you are selecting from table that has a listagg object, but do not use the listagg object, the group by will not occur.

Listagg continued

Calculated after conditions from the query, so you can add conditions

The screenshot shows a query editor interface with three main sections:

- Result Objects:** Contains four selected fields: Term (CrseAtt), Course ID (CrseAtt), Listagg Attribute Code (CrseAtt), and Listagg Attribute Desc (CrseAtt).
- Query Filters:** Contains two filter conditions:
 - Term (CrseAtt) Equal to 202310
 - Attribute Code (CrseAtt) Different from pattern Q%
- Data Preview:** A table area at the bottom, currently empty.

Term (CrseAtt)	Course ID (CrseAtt)	Listagg Attribute Code (CrseAtt)	Listagg Attribute Desc (CrseAtt)
202310	AAMW5020	AHAA, AHAE, HDAM, HMS5	ARTH M Chrono Ancien, ARTH M/N Electiv, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar
202310	AAMW5120	AAAM, AAAR, AANG, ACLA, EUHS, HDAM	ANTH N CAA, ANTH M Arc, ANCH M Gr Rom WI, CLST M Medit Arch Scienc, EAS-COURSE-Humanities, GAS PhD AAMW Seminar
202310	AAMW5190	AANG, EUHS, HDAM	ANCH M Gr Rom WI, EAS-COURSE-Humanities, GAS PhD AAMW Seminar
202310	AAMW5200	AHAA, AHAE, EUHS, HDAM, HMS5, HPA7	ARTH M Chrono Ancien, ARTH M/N Electiv, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA
202310	AAMW5220	AHAA, AHAE, AHAG, EUHS, HDAM, HMS5, HPA7	ARTH M Chrono Ancien, ARTH M/N Electiv, ARTH M Geo Non-Wes, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA
202310	AAMW5230	AHAA, AHAE, AHAG, EUHS, HDAM, HMS5, HPA7	ARTH M Chrono Ancien, ARTH M/N Electiv, ARTH M Geo Non-Wes, EAS-COURSE-Humanities, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA
202310	AAMW5231	AHAA, AHAE, HDAM, HMS5	ARTH M Chrono Ancien, ARTH M/N Electiv, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar
202310	AAMW5239	AAAR, HDAM	ANTH M Arc, GAS PhD AAMW Seminar
202310	AAMW5241	AHAA, AHAE, HDAM, HMS5, HPA7	ARTH M Chrono Ancien, ARTH M/N Electiv, GAS PhD AAMW Seminar, ARTH PHD 5000-Level Seminar, ARTH PHD PRE1750 SEMINA

Listagg

Why should we use them?

Depends on what you are doing

- If you are trying to create a data set and need to see each unique possibility, you may not want to use the listagg objects
- If you are trying to get unduplicated output (ie – one row per student), you may want to use the listagg objects

No Listagg

Penn ID (ST)	Primary Classification (ST)	Primary Degree (ST)	Primary Division (ST)	Primary Program (ST)	Primary Level (ST)	Primary Major (ST)	Site (ST)	Advisor Penn ID (SAdv)	Advisor First Name (SAdv)	Advisor Middle Name (SAdv)	Advisor Last Name (SAdv)	Attribute (SAtt)	Attribute Desc (SAtt)	Cohort (Chrt)	Cohort Desc (Chrt)
100CLWWX	PR	EDD	GM	GM_EDD	PR	TLTE		71169815	Frances	O	Rust	UNDS	Student on Dissertation		
100CRWTX	PR	MSE	EM	EM_MSE_ONL	PR	DATS						NONE	No Attribute Identified		
100CTMLX	JR	BA	AL	AL_BA	UG	UNDC		10025374	Jennifer		Kollar	PCSO	Penn Classification Sophomore		
100CTMLX	JR	BA	AL	AL_BA	UG	UNDC		52093437	Kathy		Urban	PCSO	Penn Classification Sophomore		
100CTWNX	SR	NONDEG	AL	AL_NONDG_CAL	UG	NMAJ		45983485	Jaime	Robin	Kelly	PCSR	Penn Classification Senior		
100CWRSX	JR	BAAS	AB	AB_BAAS_ONL	UG	UNDC		21414784	Sarah		Libros	PCSO	Penn Classification Sophomore		
100CWRSX	JR	BAAS	AB	AB_BAAS_ONL	UG	UNDC		52093437	Kathy		Urban	PCSO	Penn Classification Sophomore		
100CWSWX	PR	MSED	GM	GM_MSED	PR	EDCS		44783245	Jonathan	L	Zimmerman	NONE	No Attribute Identified		
100CWWLX	PB	NONDEG	AB	AB_NG_GTWYOL	UG	NMAJ		52093437	Kathy		Urban	PBAC	Post-Baccalaureate Student		
100CWWLX	PB	NONDEG	AB	AB_NG_GTWYOL	UG	NMAJ		87346654	Raymond	K	Taylor	PBAC	Post-Baccalaureate Student		
100CWWMX	FR	CERT	AB	AB_CRT_UG_OL	UG	NEUR		45042947	Christina		Torossian-Mira	PCFR	Penn Classification Freshman		
100CWWMX	FR	CERT	AB	AB_CRT_UG_OL	UG	NEUR		45983485	Jaime	Robin	Kelly	PCFR	Penn Classification Freshman		
100CWWXSX	PR	EDD	GM	GM_EDD	PR	PCLO						UNDS	Student on Dissertation		
100PLWMX	PR	MSOD	AM	AM_MSOD	PR	DYNM		51734097	Rasheeda		Hubert	NONE	No Attribute Identified		
100PNLLX	PR	EDD	GM	GM_EDD	PR	HED		10186588	John	Matthew	Hartley	HNBF	Benjamin Franklin Scholar		
100PNLLX	PR	EDD	GM	GM_EDD	PR	HED		10186588	John	Matthew	Hartley	UNDS	Student on Dissertation		
100PNLLX	PR	EDD	GM	GM_EDD	PR	HED		87186083	Christine		Muller	HNBF	Benjamin Franklin Scholar		
100PNLLX	PR	EDD	GM	GM_EDD	PR	HED		87186083	Christine		Muller	UNDS	Student on Dissertation		

With Listagg

Penn ID Q2 Mask	Primary Classification (ST)	Primary Degree (ST)	Primary Division (ST)	Primary Program (ST)	Primary Level (ST)	Primary Major (ST)	Site (ST)	Listagg Advisor Names (SAdv)	Listagg Attribute (SAtt)	Listagg Attribute Desc (SAtt)	Listagg Cohort (Chrt)	Listagg Cohort Desc (Chrt)
100CLWWX	PR	EDD	GM	GM_EDD	PR	TLTE		Rust F	UNDS	Student on Dissertation		
100CRWTX	PR	MSE	EM	EM_MSE_ONL	PR	DATS			NONE	No Attribute Identified		
100CTMLX	JR	BA	AL	AL_BA	UG	UNDC		Kollar J, Urban K	PCSO	Penn Classification Sophomore		
100CTWNX	SR	NONDEG	AL	AL_NONDG_CAL	UG	NMAJ		Kelly J	PCSR	Penn Classification Senior		
100CWRSX	JR	BAAS	AB	AB_BAAS_ONL	UG	UNDC		Libros S, Urban K	PCSO	Penn Classification Sophomore		
100CWSWX	PR	MSED	GM	GM_MSED	PR	EDCS		Zimmerman J	NONE	No Attribute Identified		
100CWWLX	PB	NONDEG	AB	AB_NG_GTWYOL	UG	NMAJ		Taylor R, Urban K	PBAC	Post-Baccalaureate Student		
100CWWWX	FR	CERT	AB	AB_CRT_UG_OL	UG	NEUR		Torossian-Mira C, Kelly J	PCFR	Penn Classification Freshman		
100CWWSX	PR	EDD	GM	GM_EDD	PR	PCLO			UNDS	Student on Dissertation		
100PLWMX	PR	MSOD	AM	AM_MSOD	PR	DYNM		Hubert R	NONE	No Attribute Identified		
100PNLLX	PR	EDD	GM	GM_EDD	PR	HED		Hartley J, Muller C	HBNF, UNDS	Benjamin Franklin Scholar, Student on Dissertation		
100PNWWX	FR	SA	AC	AC_SA	UG	CSA			NSCE, PCFR	National Clearinghouse Exempt, Penn Classification Freshman		
100PRWTX	PR	DSW	SD	SD_DSW_ONL	PR	CDSW		Corcoran J, Bachman S, Johnson-Curry J	UNMT	Student on Masters Thesis		
100PSLNX	CE	NONDEG	GM	GM_NONDEG_CE	CE	PEL			NONE	No Attribute Identified		
100PWWRX	PR	MSOD	AM	AM_MSOD	PR	DYNM		Hubert R			FIRSTGEN	First Generation Student

Cost of Attendance: Tuition and Fee Report

New public folder under Student there is a new Cost of Attendance folder with a Tuition and Fees report that reads data that was inputted from the COA tool.

- Space
- Student
 - Cost of Attendance
 - Degree Planning and Audit
 - Graduate Admissions
 - Legacy BRS
 - Legacy SAM
 - Legacy SRS
 - Pennant Accounts
 - Pennant Financial Aid
 - Pennant Student Records
 - Dual Degree Example Qu
 - snapshots
 - Worksheet



Tuition and Fees - Fall and Spring Full Time: 2024

Type of Program	Category	Sub Category	Component	2022	2023	Increase	2024	Increase
Full-Time Undergraduate	Arts & Sciences, Engineering, Nursing, Wharton		Tuition	54,652	56,212	2.9%	58,620	4.28%
			General Fee	5,510	5,676	3%	5,896	3.88%
			Technology Fee	900	900		900	
			Student Health Clinical Fee	648	664	2.47%	688	3.61%
Full-Time Undergraduate Study Abroad	Arts & Sciences, Engineering, Nursing, Wharton	Study Abroad Billed	Tuition	27,326	56,212	2.9%	29,310	4.28%
			Program Fee	2,544	5,240	3%	2,721	3.88%
Full-Time PHD Programs		PhD High	Tuition	38,732	39,838	2.9%	41,544	4.28%
			General Fee	3,552	3,660	3%	3,802	3.88%
			Student Health Clinical Fee	648	664	2.47%	688	3.61%
		PhD Low	Tuition	4,840	4,978	2.9%	5,192	4.28%

Wrap-up

Upcoming meetings: Outlook invite with the MS Teams link sent to student-wh@lists.upenn.edu

Past SDUG meetings: https://provider.www.upenn.edu/computing/da/dw/pennant-student-records/SDUG_Past_Mtgs.html

Follow-up questions/comments: da-staff@isc.upenn.edu

Discussions about student data: student-wh@lists.upenn.edu