Using Custom Reporting Tables to Facilitate Data Access

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Welcome to the Powerhouse.

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Outline

- Introductions
- Transactional vs. Reporting Systems
- The Need for Reporting Tables
- Reporting Tables Schema
- Description of Tables
- How Reporting Tables are Used
- Training End Users

University of Houston

- 43,774 students
- 14 colleges
- 110 bachelors, 119 masters, 47 doctoral, and 3 professional programs
- 9,596 degrees awarded annually

Transactional vs. Reporting Systems

Transactional System	Reporting System
Designed to run your business	Designed to manage your business
Modeled for data entry	Modeled for data analysis and dissemination
Data is constantly changing	Data reflects snapshots/points in time

Information

Transactional

Analytical

Required in data entry

Derived information used in **reporting**
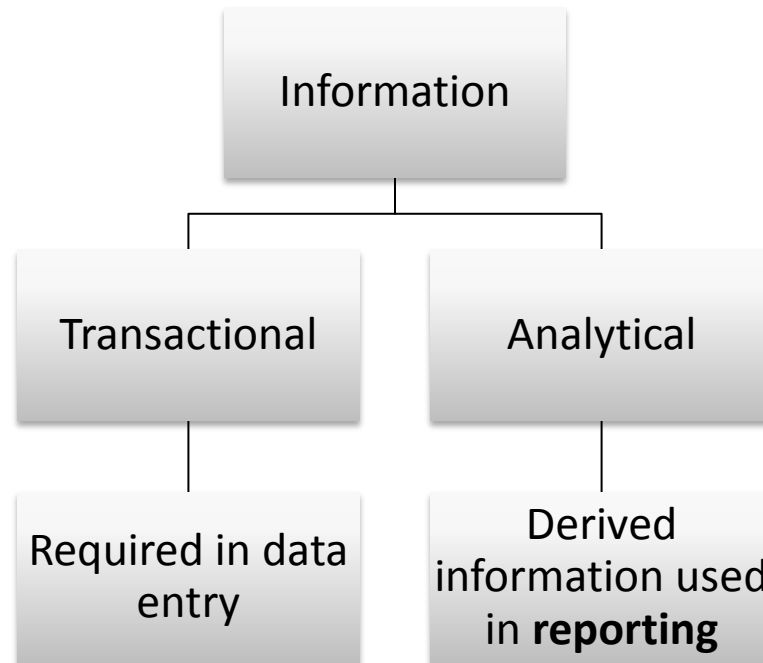
The Need for Reporting Tables

- Data access for reporting <u>before</u> PeopleSoft...
  - Data dump
  - No query ability
  - Little flexibility in terms of fields included
- Data access for reporting <u>after</u> PeopleSoft...
  - Opportunity to change how we make data available
  - Consolidate data from many tables into about a dozen tables
  - Facilitate data access/query development

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Reporting Table Logistics

- Refreshed daily overnight
    - Recurring process in Process Scheduler
- Roughly three hours to load
- Tables truncated/reloaded for the term being processed
- Key fields aid in query building

Reporting Tables Schema

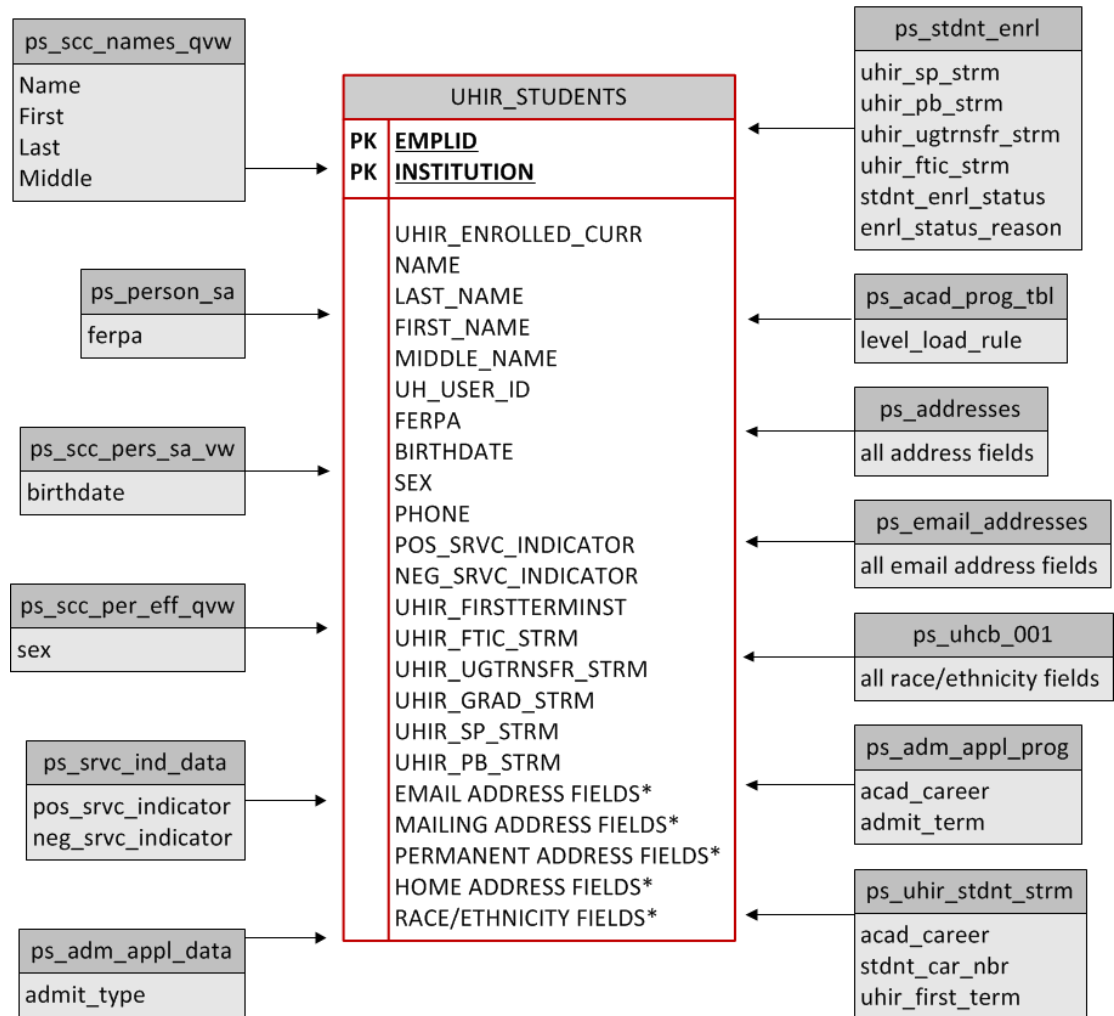| UHIR_STDNT_ENRL	
PK,FK1	EMPLID
PK,FK1	INSTITUTION
PK,FK1	ACAD_CAREER
PK,FK1	STDNT_CAR_NBR
PK,FK1	STRM
PK	CLASS_NBR

UHIR_CLASS_TBL	
PK	CRSE_ID
PK	CRSE_OFFER_NBR
PK	STRM
PK	SESSION_CODE
PK	CLASS_SECTION

UHIR_CRSE_ATTR	
PK,FK1	CRSE_ID
PK	CRSE_ATTR
PK	CRSE_ATTR_VALUE
PK	SSR_COMPONENT
PK	EFFDT

UHIR_STDNT_ACTI	
PK,FK1	EMPLID
PK,FK1	INSTITUTION
PK	UHIR_ACTIVITIES

UHIR_STDNT_TRAN	
PK,FK1	EMPLID
PK,FK1	INSTITUTION
PK	ACAD_CAREER

UHIR_STUDENTS	
PK	EMPLID
PK	INSTITUTION

UHIR_STDNT_STRM	
PK,FK1	EMPLID
PK,FK1	INSTITUTION
PK	ACAD_CAREER
PK	STDNT_CAR_NBR
PK	STRM

UHIR_STDNT_DEGR	
PK,FK1	EMPLID
PK	STDNT_DEGR
PK	EXT_ORD_ID
PK	EXT_DEGREE_NBR

UHIR_ADMISSIONS	
PK,FK1	INSTITUTION
PK,FK1	ADMIT_TERM
PK,FK1	EMPLID
PK,FK1	ACAD_CAREER
PK,FK1	STDNT_CAR_NBR
PK,FK1	ADM_APPL_NBR

UHIR_ADM_SCORES	
PK	INSTITUTION
PK	ADMIT_TERM
PK	EMPLID
PK	ACAD_CAREER
PK	STDNT_CAR_NBR
PK	ADM_APPL_NBR

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Tables & Descriptions

Table Name	Description
UHIR_STUDENTS	Current demographic information for students. One record per student, per institution.
UHIR_STDNT_STRM	Term-specific information for students that have been enrolled in at least one class for that term.
UHIR_STDNT_ENRL	Class enrollment data by term.
UHIR_STDNT_DEGR	Degree information.
UHIR_STDNT_TRAN	Transfer information.
UHIR_STDNT_ACTI	Combination of student attributes, extra-curricular, student activity and student group data.
UHIR_CLASS_TBL	Data related to classes offered.
UHIR_ADMISSIONS	Admission application data.
UHIR_ADM_SCORES	Admission test score information.

Tables & Descriptions (cont'd)

Table Name	Description
UHS_STDNT_LOC	Identifies the locations of all of the classes in which a student is enrolled.
UHM_ADM_FTICPOP	Key information about admitted FTICs and where they are in the onboarding process.
UHM_FTIC_COHDAT	Tracks members of FTIC cohorts as they progress through the university.
UHM_UGRD_COHORT	Identifies new undergraduate students each semester; includes FTIC/transfer and degree-seeking status.
UHIR_HOUSING	Student data from the housing system from application to booking.

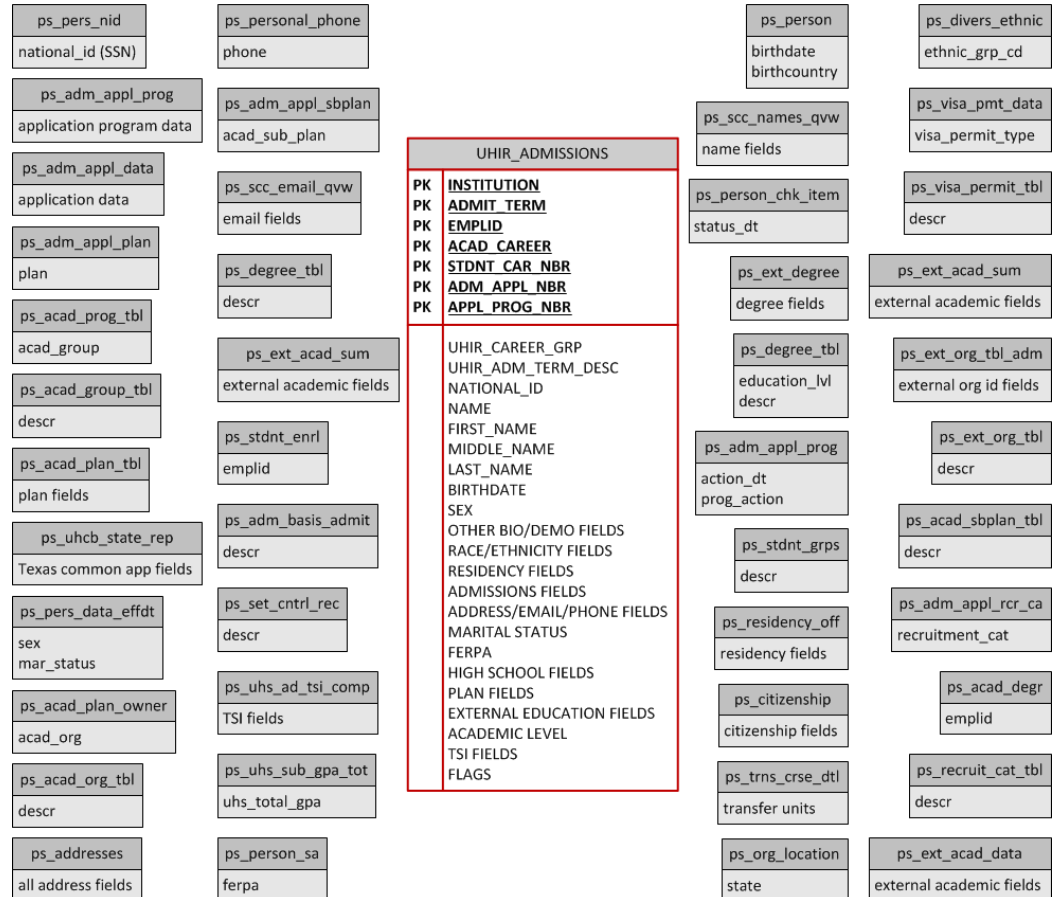# Source Tables for UHIR_STUDENTS

- Bio/demo data
- 13 source tables
- 61 fields
  - 49 fields pulled
  - 12 derived fields

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Source Tables for UHIR_STDNT_STRM

- Term-specific data
- 17 source tables
- 160 fields
  - 146 fields pulled
  - 14 derived fields

Source Tables for UHIR_ADMISSIONS

- Application data
- 45 source tables
- 197 fields
  - 179 fields pulled
  - 18 derived fields

ps_pers_nid
national_id (SSN)

ps_adm_appl_prog
application program data

ps_adm_appl_data
application data

ps_adm_appl_plan
plan

ps_acad_prog_tbl
acad_group

ps_acad_group_tbl
descr

ps_acad_plan_tbl
plan fields

ps_uhcb_state_rep
Texas common app fields

ps_pers_data_effdt
sex
mar_status

ps_acad_plan_owner
acad_org

ps_acad_org_tbl
descr

ps_addresses
all address fields

ps_personal_phone
phone

ps_adm_appl_sbplan
acad_sub_plan

ps_scc_email_qvw
email fields

ps_degree_tbl
descr

ps_ext_acad_sum
external academic fields

ps_stdnt_enrl
emplid

ps_adm_basis_admit
descr

ps_set_cntrl_rec
descr

ps_uhs_ad_tsi_comp
TSI fields

ps_uhs_sub_gpa_tot
uhs_total_gpa

ps_person_sa
ferpa

ps_person
birthdate
birthcountry

ps_scc_names_qvw
name fields

ps_person_chk_item
status_dt

ps_ext_degree
degree fields

ps_degree_tbl
education_lvl
descr

ps_adm_appl_prog
action_dt
prog_action

ps_stdnt_grps
descr

ps_residency_off
residency fields

ps_citizenship
citizenship fields

ps_trns_crse_dtl
transfer units

ps_org_location
state

ps_divers_ethnic
ethnic_grp_cd

ps_visa_pmt_data
visa_permit_type

ps_visa_permit_tbl
descr

ps_ext_acad_sum
external academic fields

ps_ext_org_tbl_adm
external org id fields

ps_ext_org_tbl
descr

ps_acad_sbplan_tbl
descr

ps_adm_appl_rcr_ca
recruitment_cat

ps_acad_degr
emplid

ps_recruit_cat_tbl
descr

ps_ext_acad_data
external academic fields

UHIR_ADMISSIONS	
PK	**INSTITUTION**
PK	**ADMIT_TERM**
PK	**EMPLID**
PK	**ACAD_CAREER**
PK	**STDNT_CAR_NBR**
PK	**ADM_APPL_NBR**
PK	**APPL_PROG_NBR**

UHIR_CAREER_GRP
UHIR_ADM_TERM_DESC
NATIONAL_ID
NAME
FIRST_NAME
MIDDLE_NAME
LAST_NAME
BIRTHDATE
SEX
OTHER BIO/DEMO FIELDS
RACE/ETHNICITY FIELDS
RESIDENCY FIELDS
ADMISSIONS FIELDS
ADDRESS/EMAIL/PHONE FIELDS
MARITAL STATUS
FERPA
HIGH SCHOOL FIELDS
PLAN FIELDS
EXTERNAL EDUCATION FIELDS
ACADEMIC LEVEL
TSI FIELDS
FLAGS

Queries Using Reporting Tables

Query Name	Description	Tables Used
UHM_IR_MAJORS_ROSTER	Pulls student information by major by department; also have versions to pull by college, student attribute, etc.	**UHIR_STUDENTS** **UHIR_STDNT_STRM**
UHIR_TRACK_FTIC_COHORTS	Tracks initial/current plan for FTIC cohort members; prompts for initial college.	UHCB_001 ACAD_PLAN_TBL ACAD_PROG_TBL ACAD_PLAN_OWNER ACAD_ORG_TBL_VW ACAD_GROUP_TBL **UHIR_STDNT_STRM** **UHIR_STUDENTS**
UHM_IR_NO_CLS_TM_BLD_SEM	Uses the CB4 class list criteria as much as possible to provide a list of classes that do not have scheduled class times or building information.	**UHIR_CLASS_TBL**

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Other Ways Reporting Tables are Used

- Institutional Research
  - Survey Reporting
  - Ad Hoc Requests
    - GPA information
    - Who's been admitted
- Admissions
  - Daily tracking reports

Training End Users

- Query Training
  - Fifteen hours
  - 5 consecutive days, 3 hours per day
- Participants
  - Users wanting access to be able to write queries in the PeopleSoft student module
- Frequency
  - 3 times a year (spring, summer, fall)
- Uses non-production database
- Partner with Campus Solutions Services

Query Training Outline

I: Query Fundamentals

II: Basic PeopleSoft Query Writing

III: Advanced PeopleSoft Query Writing

Appendix: Sample SQL Functions, Troubleshooting Queries, New Functionality, Assessment Exercises

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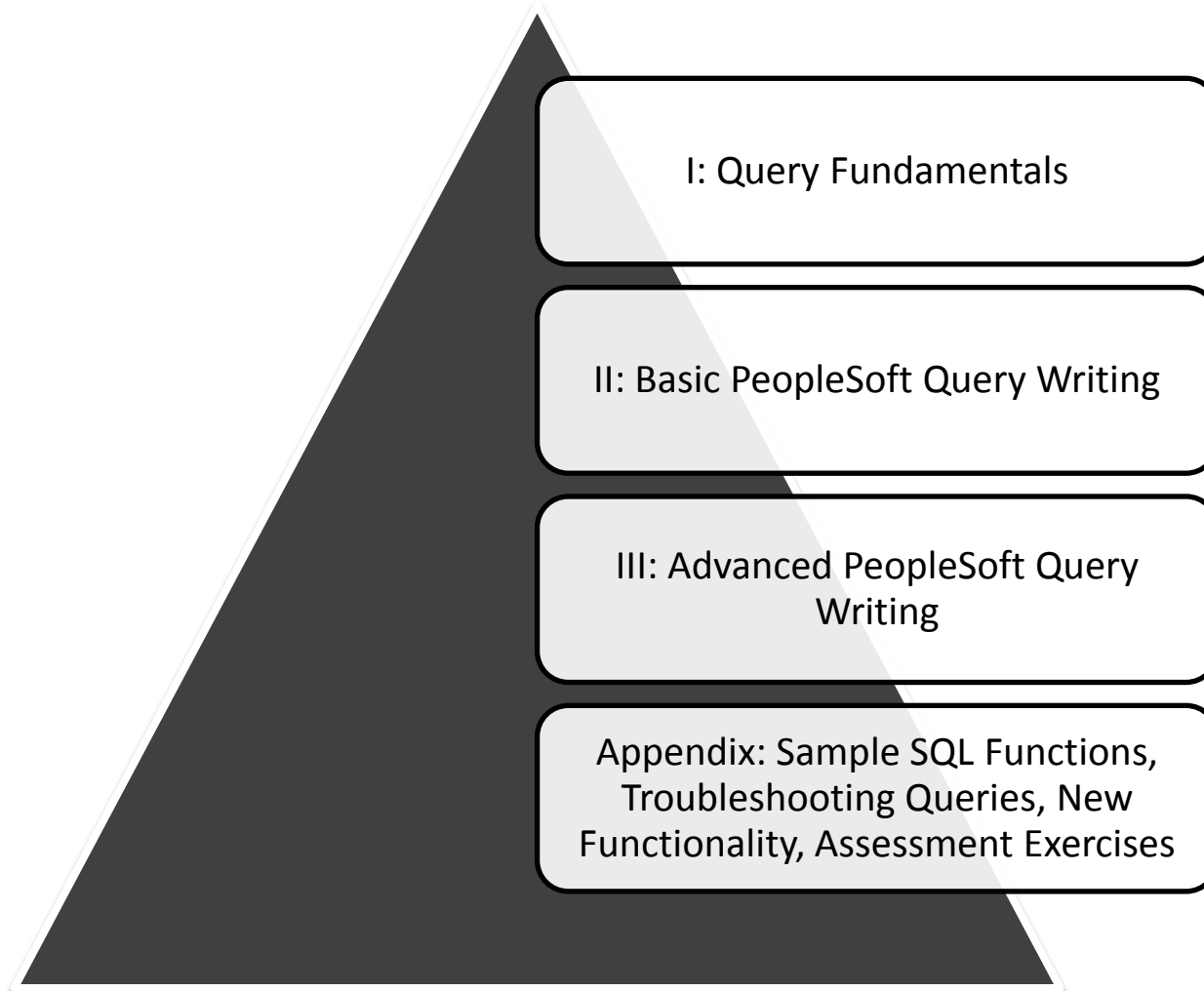
Query Training Topics

- Overview of Tables
  - UHIR Reporting Tables
  - Coordinating Board (CB) Report Tables
- Query Writing
  - Effective Date Logic
  - Query Methodology
  - Joins/Functions/Expressions
- Assessment Exercises

Query Training Assessment

- Background
  - Goal: grant access to query production data
  - Needed to ensure that users understood how to accurately query data
- Format
  - 2 exercises; 1 beginner, 1 advanced
- Grading
  - Correct tables/fields
  - Joins
  - Output formatting
  - Expressions, functions, aggregation, etc.

Example Assessment Exercise

Provide a list that displays the EMPLID and CUM_GPA for all students enrolled at the end of the term during Fall 2009 at UH if the student had a cumulative GPA of at least 3.0. If the student belonged to the Honors (R003) activity type, provide that additional information in a column (UHIR_ACTIVITY_TYPE). Also add a calculated column that combines the student's current Academic Standing code with their primary plan (with a dash in between), i.e. 'E-TELSBS'; the title of the column should be "Standing and Plan". The institution should be a run-time variable that defaults to value '00730', having a lookup against master table 'INSTITUTION_TBL' and having custom heading text that says "Enter the institution". Sort the data by activity type, then by student ID.

Tip: You should receive 18,144 rows of data.

Thank you!!

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