



Curiouser and  
Curiouser: The  
Wonderland of  
Florida's Career  
and Technical  
Education Data  
Systems

# Objectives



"Tut, tut, child!" said the Duchess. "Everything's got a moral, if only you can find it."

- Identify the databases where CTE data are stored
- Find and comprehend data dictionaries
- Understand how the data are extracted for funding and federal reporting
- Find standard reports of aggregated data

# General Comments



- Data: Information, esp. information organized for analysis or used as the basis for decision-making.
- It's not a walk in the park,... but it isn't rocket science either.
- Devil is in the details.
- It's all in the algorithm (AKA instructions).

# What determines what data are collected?

1. Funding determinations – Workforce Development Fund, Incentive Funds
2. Accountability mechanisms, state and federal
3. Program improvement

# Where do the data go?



“In another moment down went Alice after the rabbit, never once considering how in the world she was to get out again.”

# Three Separate Databases

PK-12



Student  
Information  
System

State  
College



State College  
Student  
Database

District  
Adult/Post-  
secondary



Workforce  
Development  
Information  
System (WDIS)

- The PK-12 database is managed by the Bureau of Education Information and Accountability Services
- The college database and WDIS are managed by the Bureau of Community College/Technical Center MIS (CCTCMIS)
- CCTCMIS also manages a subset of the PK-12 data, the **Secondary Vocational Database**  
(<http://www.fldoe.org/arm/cctcmis/pubs/sec/0809hbk/0809hbk.asp>)

In addition to the student databases, both the Florida College System and school districts have **staff** and **facilities** databases, but our main concern today are student data.

# Surveys

Districts and colleges report the data to the state at regular intervals. The periods of time in which the data are reported are called surveys or submission periods.

# PK12 Surveys

- **Survey 2** (fall): October
  - Final amendments due in March (following year)
- **Survey 3** (spring): February
  - Final amendments due in July
- **Survey 5** (end of year): August
  - Final amendments due in February (following year)

# Florida College System Submission Periods

- 1E/2B – Summer end-of-term/fall beginning of term: September
- 2E/3B – Fall end-of-term/winter-spring beginning-of-term: January-February
- 3E – Winter-spring end-of-term: May-June

# District Adult/Postsecondary

- Survey F (fall): September-October
- Survey W (winter/spring): January-March
- Survey S (summer/end-of-year): June-July
  - Survey S updates: July-August

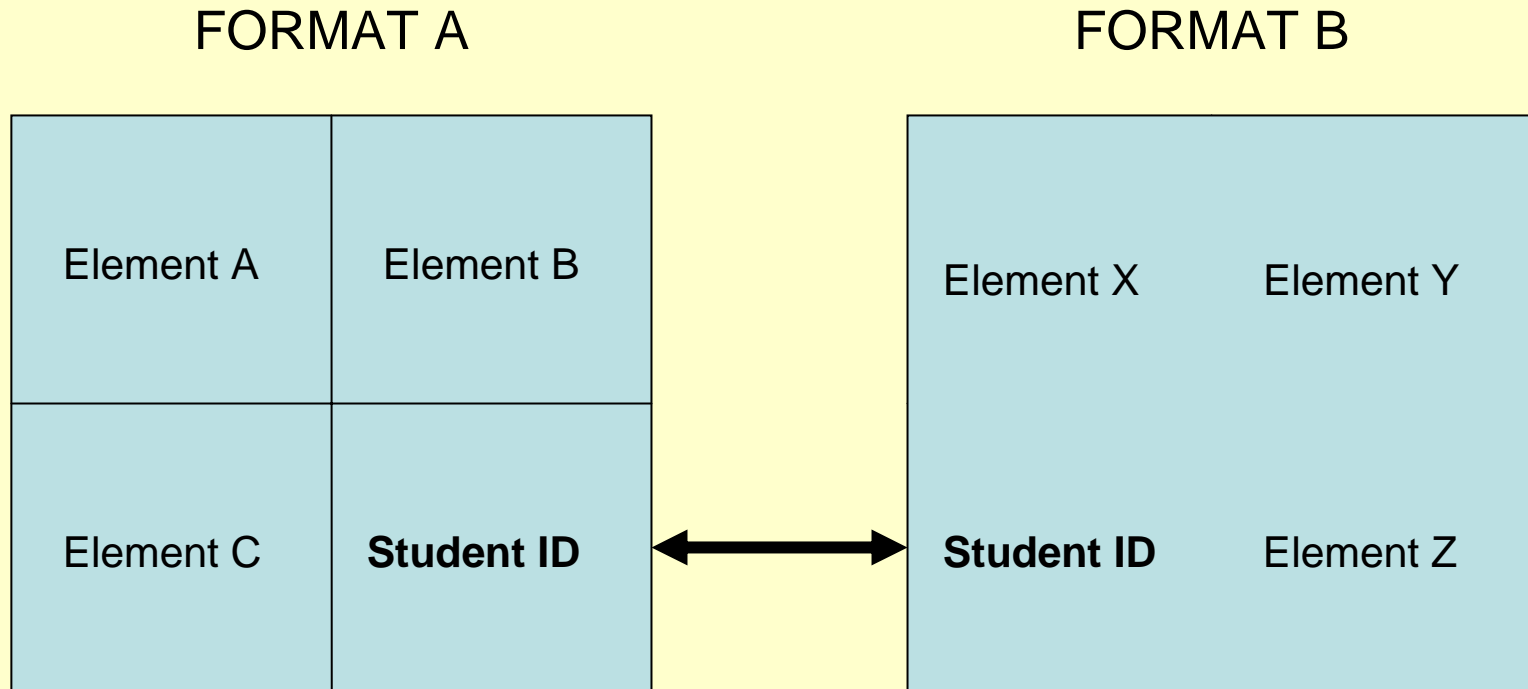
# Data Manuals

- Each database has a manual that is published annually on the Web
- K-12 -  
<http://www.fldoe.org/eias/dataweb/default.asp>
- State Colleges -  
<http://fldoehub.org/CCTCMIS/C/Pages/default.aspx>
- WDIS -  
[http://www.fldoe.org/arm/cctcmis/pubs/techs/handbk\\_main.asp](http://www.fldoe.org/arm/cctcmis/pubs/techs/handbk_main.asp)

# Data Elements

- The building block of each database is the DATA ELEMENT, a “pocket” designed to accept values and codes for a specific piece of information.
- EXAMPLES: Reporting Year/Survey, Student ID Number, Course Number, Financial Assistance Received.

Data elements are grouped into REPORTING FORMATS, which are tables of elements that have something in common, e.g. course data or demographic data.



- Data are linked together in the database by a shared unique identifier (e.g. student ID number).
- Formats are important for the INPUTTING of data, not outputs.

- Descriptions of data elements are found in each database's manual:
- 2008-09 Data Element Descriptions
  - K-12:  
[http://www.fldoe.org/eias/dataweb/student\\_0809.asp#DATA%20ELEMENTS](http://www.fldoe.org/eias/dataweb/student_0809.asp#DATA%20ELEMENTS)
  - State Colleges:  
<http://fldoehub.org/cctcmis/c/Documents/2008%20Dictionary/chapter3.doc> (begins on p. 29)
  - WDIS:  
[http://www.fldoe.org/arm/cctcmis/pubs/techs/0809hbk/wdis\\_elements.asp](http://www.fldoe.org/arm/cctcmis/pubs/techs/0809hbk/wdis_elements.asp)

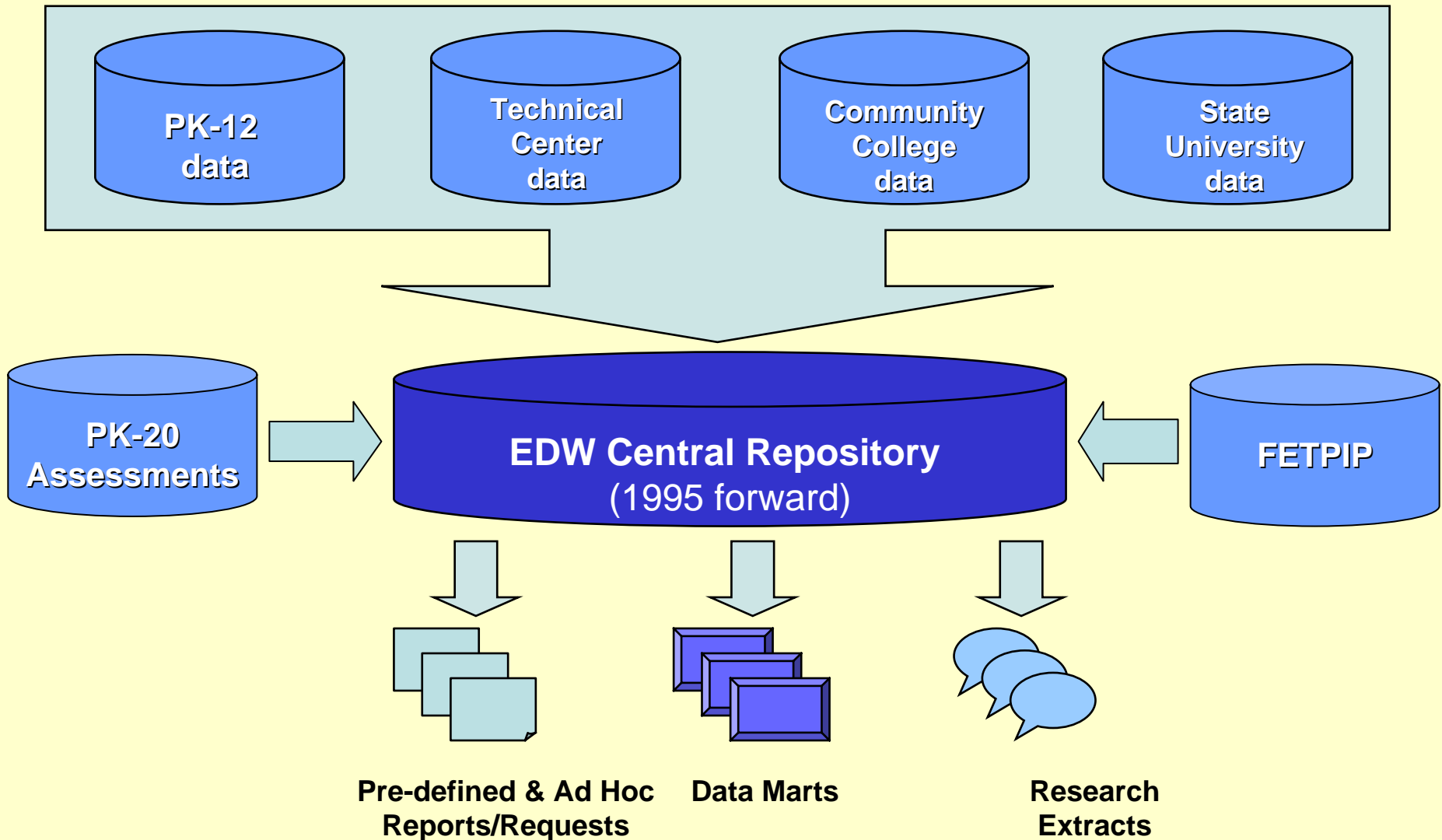
# Validation

- When data are submitted to the state from the districts and colleges, they are screened to detect logical inconsistencies and ensure that required fields are entered
- These quality assurance checks are called 'edits'
- Example from WDIS:  
[http://www.fldoe.org/arm/cctcmis/dataweb/database\\_0809/wdis/edits/e0809wvscs.doc](http://www.fldoe.org/arm/cctcmis/dataweb/database_0809/wdis/edits/e0809wvscs.doc)
- Records with errors are returned for correction

# Education Data Warehouse

- The K-12, state college, and WDIS databases constitute individual silos of data
- These source systems feed into an integrated database called the Education Data Warehouse (EDW) that allows us to track a cohort of students over time (longitudinal research)

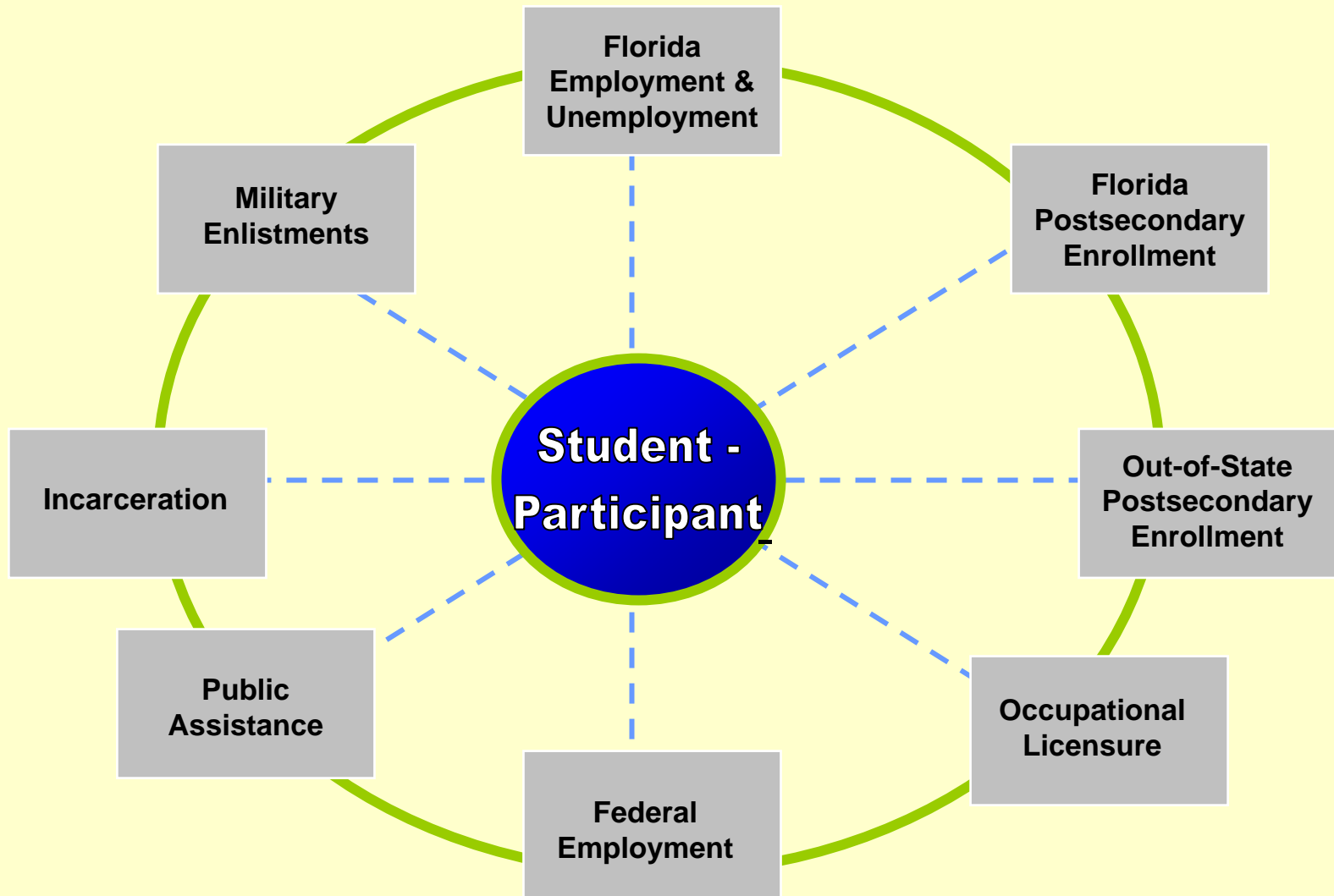
# Florida's PK20 Education Data Warehouse



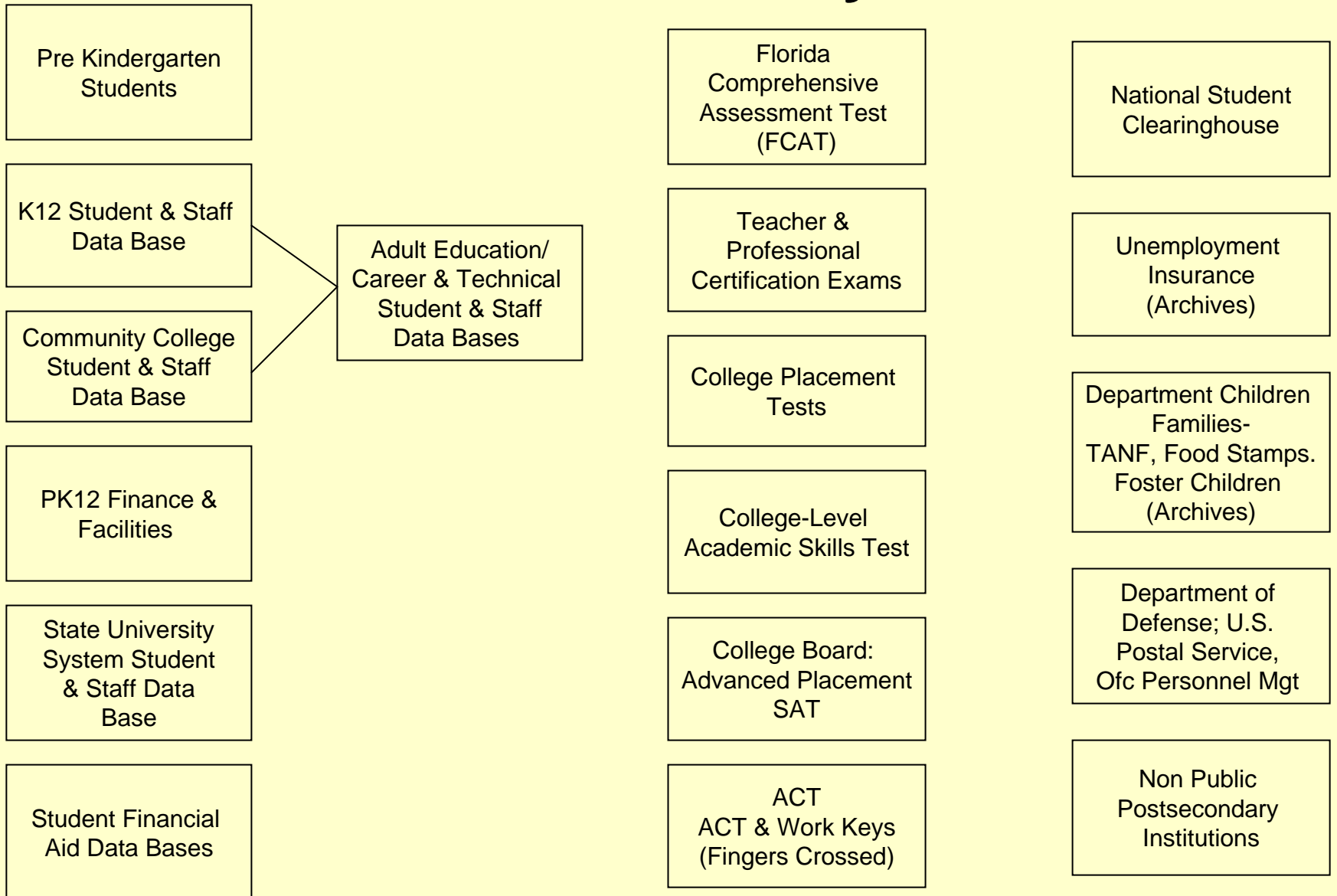
# **Florida Education and Training Placement Information Program – FETPIP**

- Integrated interagency data collection & reporting system
- Integrates many administrative data resources of state and federal agencies
- Developed to follow-up all participants and students from Florida's education and training programs at all levels
- Helps to answer the question: What happens to students after they leave programs?

# FETPIP: Examples of Data Describing Student Outcomes



# EDW + FETPIP = K-20 Integrated Education Data System



# OK, so we know where the data are. What turns the data into useful information?

- Through computer programming, we identify and select student records in a particular point in time that meet particular criteria
- Selection logic works like this:
  - Point in time = this session
  - Population = all the people in this room = (A)
  - Select everyone wearing eyeglasses = (B)
  - Divide B by A to get the percentage of eyeglass wearers

# But, we're not counting spectacles

- For us the point in time may be a survey, an entire academic year, or multiple years
- The population may be based on program, student demographics, etc.
- The piece of information we want may be a headcount, FTE, cumulative hours, completions, placements and it may be raw numbers or a percentage
- The rules used to calculate a piece of information or a set of data are called “business rules”

- An example from the Perkins accountability measures, postsecondary clock-hour concentrator/participant:  
<http://www.fldoe.org/workforce/perkins/pdf/PSClockHour.pdf>
- An example of how data are processed for funding calculations, the workforce education performance funding model:  
<http://www.fldoe.org/workforce/pdf/PBB%200-%20Final%20Version%20-%20website.pdf>

# A word about unduplication

- One key aspect of any set of business rules to extract data is how the records are going to be unduplicated
- For example, if a student is reported as enrolled in more than one program or one school, how many times is that student counted
- For student demographics of a district, you may want to count each student just once
- Your unduplication rule depends on the question you are trying to answer

# Data Reports

- Workforce Education Fact Books
  - State College:  
<http://www.fldoehub.org/CCTCMIS/c/Pages/default.aspx>
  - District:  
<http://www.fldoehub.org/CCTCMIS/wdis/Pages/default.aspx>
- FETPIP Follow-up Reports:  
[http://www.fldoe.org/fetpip/we\\_2.asp](http://www.fldoe.org/fetpip/we_2.asp)
- Agency for Workforce Innovation Labor Market Statistics:  
<http://www.labormarketinfo.com/index.htm>

- Bureau of Labor Statistics:  
<http://www.bls.gov/>
- National Research Center for Career and Technical Education:  
<http://136.165.122.102/mambo/>
- National Center for Education Statistics (NCES) Career/Technical Education Statistics: <http://nces.ed.gov/surveys/ctes/>

# Questions?

## Contact Information

**Mark Baird, PhD**

Division of Career & Adult Education

FLDOE

[MARK.BAIRD@FLDOE.ORG](mailto:MARK.BAIRD@FLDOE.ORG)

850-245-9060

