

You Still Need Paper, Quill, and Abacus: *Techniques for Quality Control from an Output Perspective*

Presented by:

Eileen Brennan
Data Analyst
Oakland Community College

Eleanor Swanke Fox
Research Analyst
Oakland Community College

Objectives:

- ❖ Offer parameters and standards for:
 - Evaluating data validity
 - Identifying where problems originate
- ❖ Provide context for evaluating college policies and processes
- ❖ Demonstrate ways of using internal and external data reporting as continual quality assurance tools
- ❖ Provide framework for auditing Colleague data input and processes using other tools including brainpower

A Little Background about OCC

- ❖ Multi-campus community college in Southeast Michigan (5 campuses across the county)
- ❖ Enrollment:
 - Fall 2003 Credit Headcount = 24,146
 - Fall 2003 Credit Hours = 195,254
 - 2002-03 Unduplicated Annual Headcount = 45,490
 - 2002-03 Annual Credit Hours = 448,612
- ❖ One of the 15 largest Community Colleges in nation

A Little Background about OCC

- ❖ Colleague Conversion:
 - Went '**LIVE**' March 6, 2002 on Release 16
 - Upgraded to Release 17 March 2003

- ❖ Role Institutional Research played in Colleague Conversion:
 - Team members in Conversion, Curriculum/Faculty, Admissions (2+ years)
 - Consultants to all teams regarding data gathering criteria and sources

OCC's End User Initial Expectations of Colleague

- ❖ “Point, Click, and Snap!” → **TA DA DATA!**
- ❖ All end users would have immediate access to necessary data
- ❖ 286 Student System Reports would magically appear

Before Conversion

It is important to know what data you currently collect, and from what sources

- Meet with informed individuals to obtain the current location of data (in old system)
- Meet with informed individuals to obtain the future location of data (Colleague system)
- Create a 'cross-walk' to link the two locations

Student Information System File Downloads
Demographic Record Layout
EXAMPLE

#	Variable	Label	Source	Intent	Input Screen Name	Input Field Name	Comments	Output File	Output Seq #	Colleague File	Field Name/Description
1	Student ID	Student Identification Number	Colleague	Unique student identifier	??	??	Colleague actually populates this	Common to all	1	STUDENTS	STUDENT.ID
2	SSN	Student Social Security Number	Application for Admission, provided by student	Unique student identifier	NAE	SSN		Common to all	2	PERSON	SSN
3	LNAME	Student Last Name	Application for Admission, provided by student	Unique student identifier	NAE	Name 'L'		Common to all	3	PERSON	LAST.NAME
7	STREET	Street Address	Provided by student, application, registration	Mailing	ADR	Address / 'Current' Status	Need to make sure the Address you pick is 'Current' Status. var.address.lines	X.IR.STUDENT.FILE	28	ADDRESS	BEST.ADDRESS;ADDRESS.LINES<1,1>
17	Phone	Primary Phone Number	Provided by student, application, registration	surveys				X.IR.STUDENT.FILE	18	PERSON	PERSONAL.PHONE.NUMBER
25	RESCODE	Residency Status for Billing	Application for Admission, coded by office	some state and federal reporting, various analyses	ASPR	Residency Status / Date	You must look at the most recent date listed, this will show you the respective res status. -stu.residency.status -stu.residency.status.date	X.IR.STUDENT.FILE	23	STUDENTS	STU.RESIDENCY.STATUS<1,1>
28	HSCODE	High School Numeric Code	Application for Admission, Office coded	High School Penetration, various analyses, tech prep	HSA	CEEB / FICE	(another way to get into HSA is thru SASM)	X.IR.STUDENT.FILE	34	INSTITUTION	INST.CEEB
38	GEDTYPE (formally GEDSCORE)	Formerly Score on GED, Now yes or no	Application for Admission, provided by student	Possible Developmental Ed, anticipated reporting	HSA		Is GED entered as an Institution or inside the high school record as a 'grad type?' - (4/10/02) still no word how end users are entering data. Conversion came over with GED Inst & GED Grad Type -NO SCORE WILL BE PROVIDED	X.IR.STUDENT.FILE	40	INSTITUTIONS.ATTEND	INSTA.GED OR IF INSTITUTION.ID = 0047038 = 'Y' ELSE 'N'
87	DEGRE 1	First OCC Degree awarded	Student history records, based on degree audit		SASM	Degree - from Student Program	Scroll down to the appropriate degree - status = 'G' <i>SPSH: stpr.start.date</i> <i>These dates may be inaccurate due to conversion, from 2002, data will be more accurate</i>	X.IR.DEGREE.FILE	8	STUDENT.PROGRAMS	STPR.ACAD.PROGRAM
42	APPYRSES	Expected first session of attendance	Application for Admission, provided by student	Telemarketing	SHAP	Start Term	appl.start.term	X.IR.STUDENT.FILE	44	APPLICATION	APPL.START.TERM
137	LSTTRNO	Counter on transactions to student's record.	Delete				delete	-	-	-	-

What “Output” Helps Measure Quality Control?

External Reports:

- IPEDS Student based reports excluding Financial Aid;
- State mandated reports;
- Various surveys including Peterson's, College Board, ACT

Internal Reports:

- Official Enrollment;
- Course Section Reports;
- Grade Distribution;
- Credit Hour Trends;
- Degree Trends;
- Various analyses requested by OCC faculty and staff

Don't Take Data at Face Value

*Your data output could
have discrepancies!*

- Colleague is a 'canned' product with many 'can openers' or input/output options.
- Institutions customize fields and processes to suit their needs; adjustments may mean results inconsistent with Datatel documentation
- Sometimes data must be manipulated outside of Colleague

Understand Processes

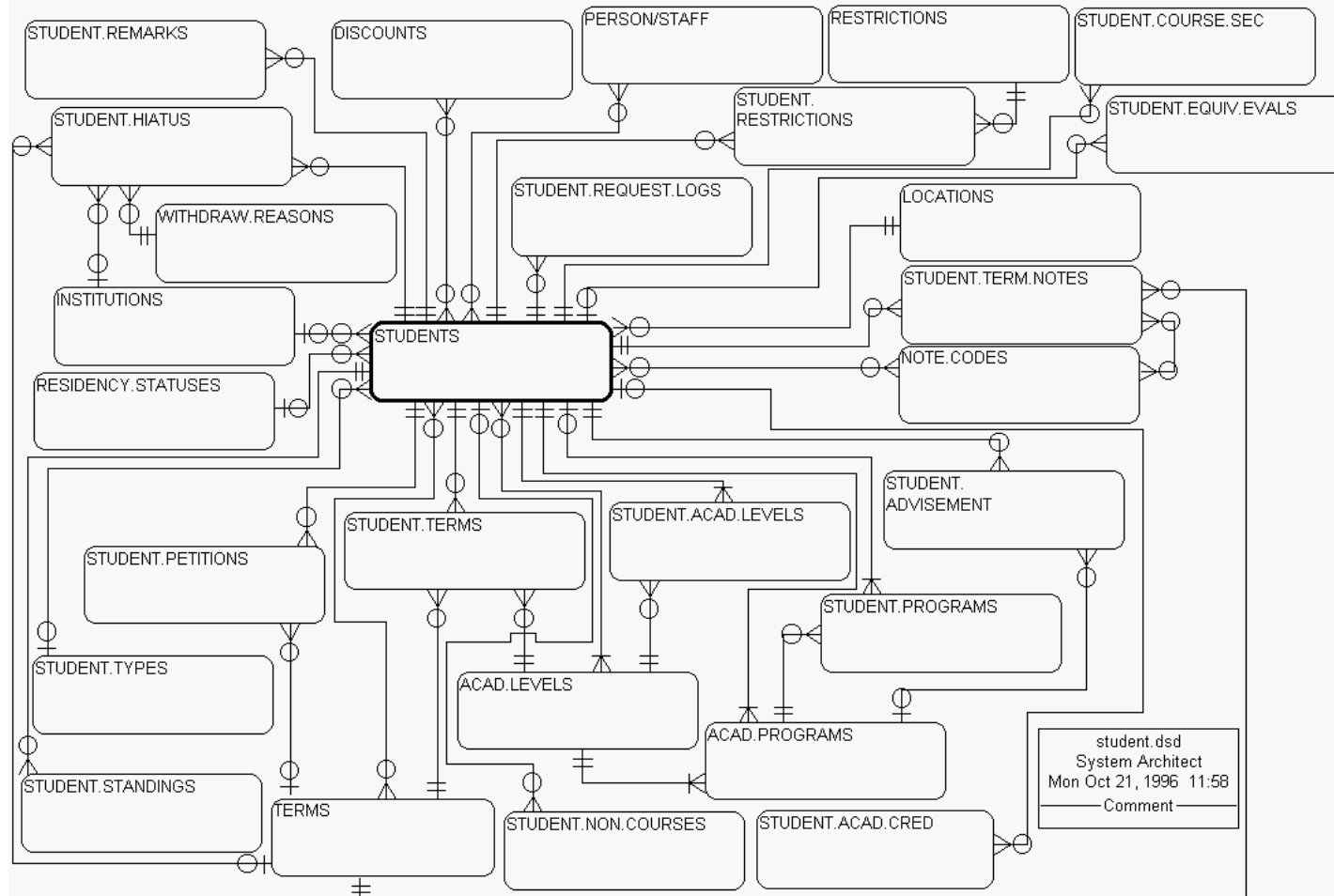
Processes to understand:

1. Colleague / System Processes
2. Your Institution's Process
3. How do Colleague / Institution Processes Intersect?

Understand Colleague's Process

- How is the data stored in the system?
- How is the data linked to other data?
- How should we access the data?
- Are there concerns with summary data which the system creates?

Student System Data Structure Diagram



Understand Colleague's Process

What tools are available?

Even if you don't have access to these tools, develop a basic understanding of them

- Query Builder
- 'Tech doc' online
- Datatel's user group listservs
- Envision Tool Kit, Unibasic

Understand Your Institution's Process

- Review training material for end users
- Maintain current manuals and directories of data entry procedures
- Learn 'Rules' and 'Subroutines' customized for your institution
- Create open dialogue with those who are informed about a certain:
 - » *Department*
 - » *Topic*
 - » *Process*

Know Your Focus

1. OCC is a student-centered institution, therefore students are the primary unit of analysis for student system reporting
2. Student based records are the primary source of information
3. When is data considered official? Data should be 'snapshotted' at designated points in time

Real-time (LIVE) Data vs. Snapshot Data

Referencing real-time (LIVE) data is fine for many instances, however Institutional Research primarily works with **'snapshot'** data.

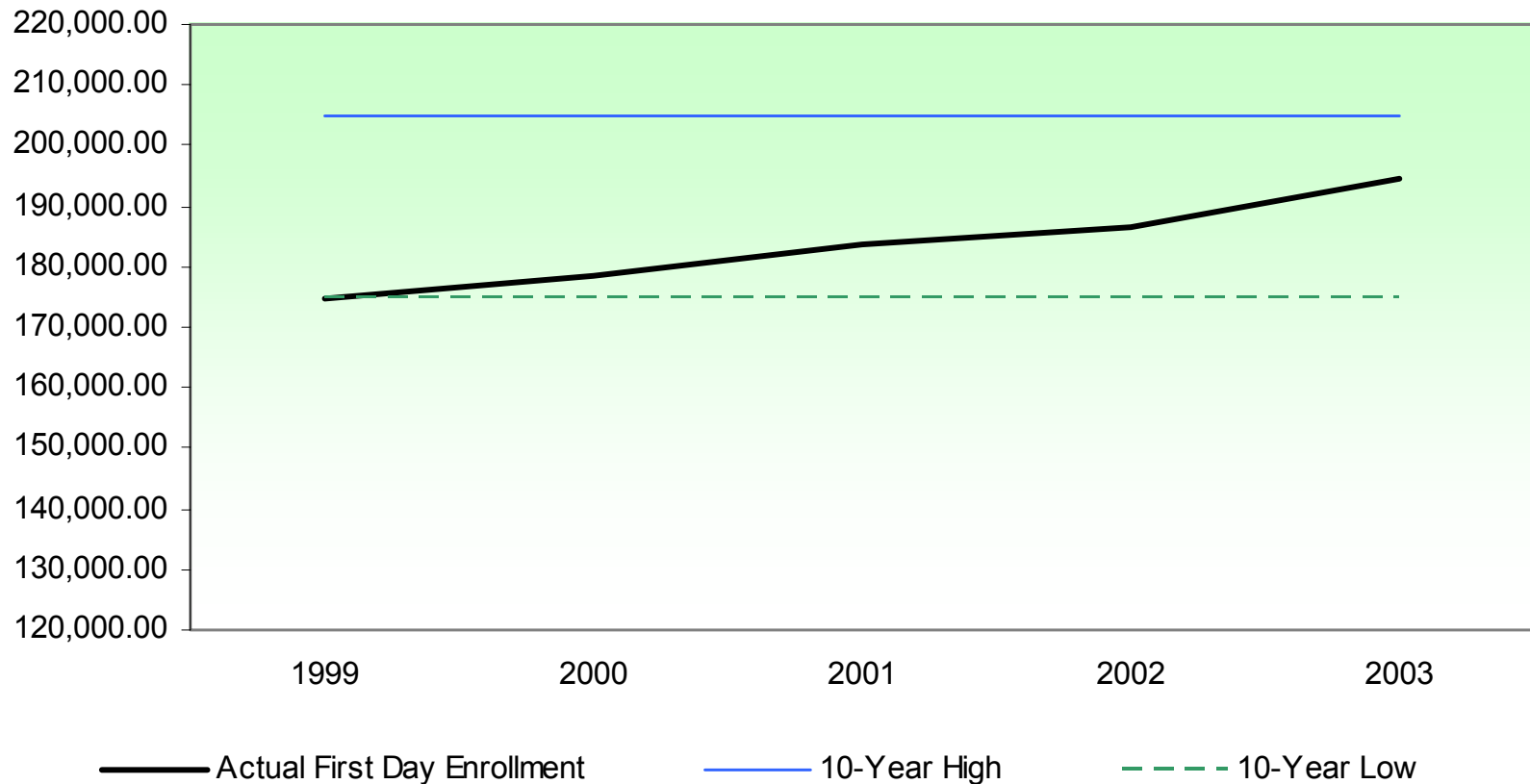
Snapshots allow:

- Verification
- Testing on a consistent basis

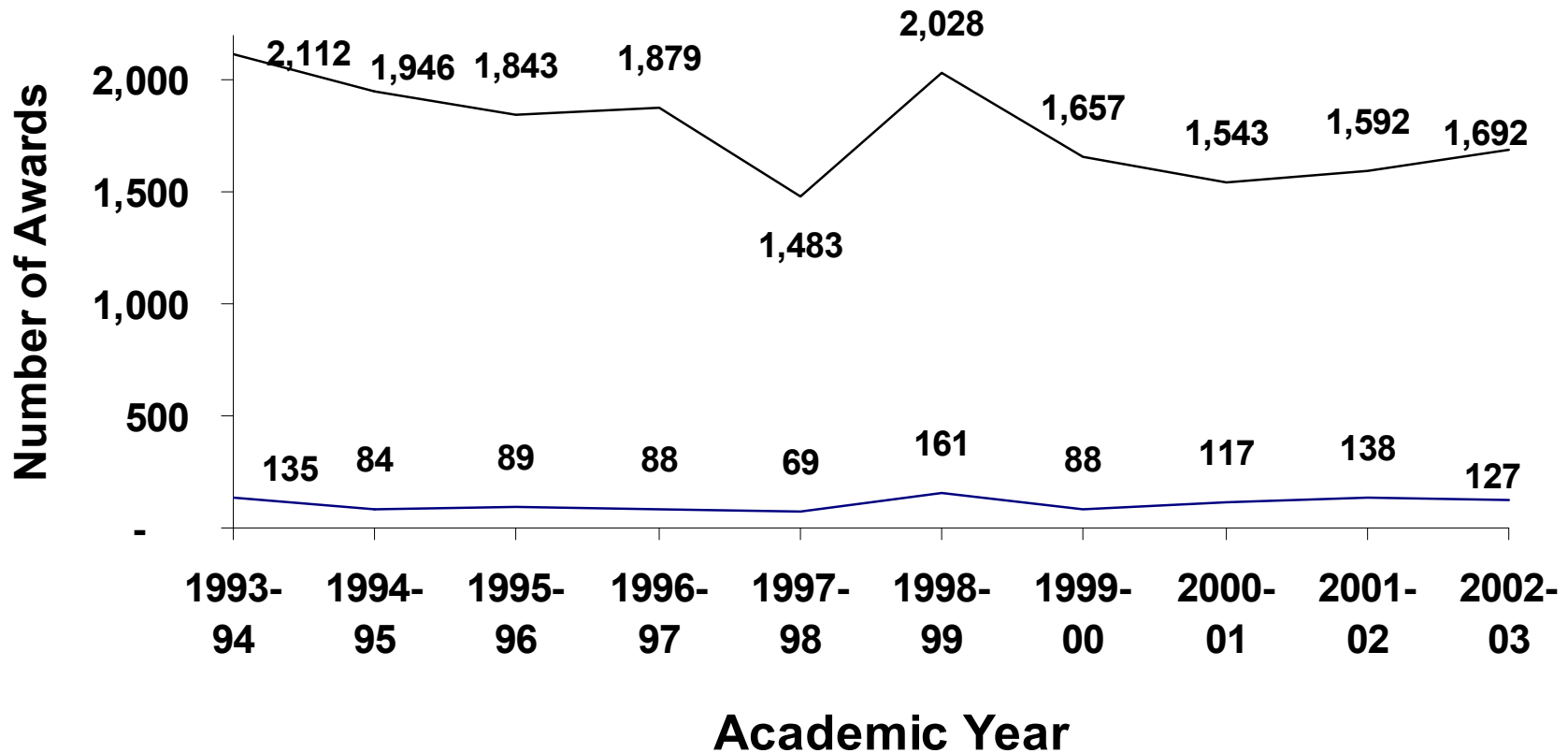
Determine What Output is Appropriate

- Is there historical trend data available with which to compare?
- Is there documented data in previous reports?
- Are there actual records / students to 'count?'

Oakland Community College Official Student Credit Hour ~ Fall 2003 First Day of Session: College-Wide



Oakland Community College Associate Degrees and Certificates Awarded College-Wide 1993-94 through 2002-03



Various Triggers for Pulling out the Paper, Quill, and Abacus

- Cannot locate data
- Data is not reasonably consistent with historical trends
- Ran data two different ways, which showed inconsistencies
- Conflicting data from one department to another
- Gut / Hunch ***'It just doesn't look right!'***

Cannot Locate Data

Example: *Fall 2002 OCC Student data did not include any high school graduates!*

Diagnostic Process:

- Determined data was not converted to Colleague for students entered in Legacy. Paper audit of admission applications after implementation.
- Evaluated high school end year ~ looked for students who attended high school.

Cannot Locate Data

Example: *Fall 2002 OCC Student data did not include any high school graduates!*

Findings:

- Applications showed HS grad information, while Colleague did not.
- Reviewed data entry instructions. Critical missing element ~ 'grad flag.'

Solution:

- Enrollment Services corrected process.
- Training manuals were revised.

Data is not Consistent with Historical Trends

Example: *FTIAC numbers increased more than expected.*

Diagnostic Process:

- Reviewed definition of FTIAC.
- Calculated and compared numbers based on each definition.

Historical Data:

- 2000: 2,514
- 2001: 2,669

Data is not Consistent with Historical Trends

Example: *Fall 2002 FTIAC numbers increased more than expected.*

Findings:

- All self-reported FTIACs = **4,539**
- All self-reported FTIACs with no previous session = **3,936**
- All self-reported FTIACs with no previous session; no transfer info; previous degree less than or equal to HS or GED; no guest; and no OCC award = **3,616**

Data is not Consistent with Historical Trends

Example: *Fall 2002 FTIAC numbers increased more than expected.*

Solution:

- Selected appropriate definition.
 - All self-reported FTIACs with no previous session; no transfer info; previous degree less than or equal to HS or GED; no guest; and no OCC award = **3,616**

Inconsistent Data

Example: *Ran enrollment data two different ways; COURSE.SECTION vs. STUDENT.COURSE.SECTION*

Data:

Spring 2002 Registration counts:

Active Course Section count = 21,063

Active Course Section count,
derived from student course section = 21,049

Active Student Course Section Count = 21,435

Inconsistent Data

Example: Ran enrollment data two different ways; COURSE.SECTION vs. STUDENT.COURSE.SECTION

Diagnostic Process:

- Compared counts.
- Consulted with IT and Enrollment Services.

Historical Data:

- Not a truly significant difference from historical data;
- inconsistencies within “checked” data.

Inconsistent Data

Example: *Ran enrollment data two different ways; COURSE.SECTION vs. STUDENT.COURSE.SECTION*

Findings:

- Inconsistencies between Course.Section and Student.Course.Section reported number based on status. Data structure diagrams indicate relationships to grades, billing in Student.Course.Section.

Solution:

- Reports should be based on Student.Course.Section rather than Course.Section

Conflicting Data Between Departments

Example: *Registration Activity and Official Enrollment Reports were not consistent*

Diagnostic Process:

- Reviewed registration/enrollment queries for clarification

Findings:

- Registration Activity Reports used data from real-time (LIVE) system.
- Official Enrollment Reports were derived from 'snapshot' data.

Conflicting Data Between Departments

Example: *Registration Activity and Official Enrollment Reports were not consistent*

Solution:

- Data for Registration Activity AND Official Enrollment Reports are derived from 'snapshot' data.
- One department provides both reports for consistency.

Gut / Hunch

Example: Non-Credit Unduplicated Student Counts don't meet expectations

Diagnostic Process:

- Re-ran numbers several times
- Determined that student information data entry was expected to lag (for justifiable reason) in this file.
- Consulted with those knowledgeable about the programs, and how they were entered into Colleague.

Gut / Hunch

Example: Non-Credit Unduplicated Student Counts don't meet expectations

Findings:

- Determined that unduplicated student counts for Non-Traditional courses had not been readily available previously due to duplication in previous tracking file.
- Process of using counting non-credit enrollment to conform with credit counting was not clear to all.

Solution: In process.

Team E tips

Know your data!!

Know your processes!!

Question everything!!

Communicate and cooperate!!

The Moral of the Story

***Don't assume your data is correct
before understanding what goes
into creating your data !!!***

Thank You !

For additional information contact:

Oakland Community College
Office of Institutional Research
140 South Saginaw Street, 6th Floor
Pontiac, Michigan 48342
Ph: (248) 341-2123