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# The Delaware Study Data Collection Process: Making the Most of a Data Warehouse and Managing Multiple Data Sources to Collect Data for the Delaware Study of Instructional Costs & Productivity

Allison Walters, Assistant Director | Denise Lindsey, Research Analyst  
University of Delaware Office of Institutional Research

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[www.udel.edu](http://www.udel.edu)

## Presentation Outline

- Overview of the Delaware Study and its data
- UD's data collection process pre-PeopleSoft
- Transition to PeopleSoft and Data Warehouse, creates need to revise data collection process
- New Data Sources and Tools: PeopleSoft, Warehouse/Cognos
- Evolution of our data collection process & Lessons Learned

## The Delaware Study

- [www.udel.edu/IR/cost](http://www.udel.edu/IR/cost)
- National benchmarking study
- Teaching activity by level of faculty, instructional cost, research and service expenditures – at discipline level
- Academic departments as “Budget Units”
- Data needed:
  - Course (student)
  - HR
  - Finance

# 2010 National Study of Instructional Costs and Productivity

Institution:

[OFFICE USE ONLY]

Department/Discipline:

Associated CIP Identifier:

CIP Verified?

Please indicate the **average** number of degrees awarded in this discipline at each degree level over the period from 2006-07 through 2008-09. If a degree level is not offered, leave as zero. If data are not available, please enter 'm' in the boxes.

Bachelor's:   
 Master's:   
 Doctorate:   
 Professional:

Place an "X" in the box below if this discipline is non-degree granting.

## A. INSTRUCTIONAL COURSELOAD: FALL SEMESTER, 2009

Please complete the following matrix, displaying student credit hours and organized class sections taught, by type of faculty, and by level of instruction. Be sure to consult definitions before proceeding. Do not input data in shaded cells except for those mentioned in the important note below that pertains to (G) and (J).

Faculty			Student Credit Hours									Organized Class Sections				
Classification	FTE Faculty			(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	Other Section Types (Lecture, Seminar, etc.)			(P) Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	
	Total	Sep. Budg.	Instruc-tional	Lower Div. OC*	Upper Div. OC*	Undergrad Instruct.	Total Undergrad SCH	Grad OC*	Graduate Indv. Instruct.	Total Graduate SCH	Total Student Credit Hours	Lab/Disc/ Rec. Sections	Lower Div.	Upper Div.	Graduate	
<i>Regular faculty:</i>																
- Tenured/Tenure Eligible	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
- Other Regular Faculty	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Supplemental Faculty	0.00	NA	0.00	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
<i>Teaching Assistants:</i>																
- Credit Bearing Courses	0.00	NA	0.00	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
- Non-Credit Bearing Activity	0.00	NA	0.00	NA	NA	NA	NA	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0

\* OC = Organized Class NA = Not applicable

In the box to the right, indicate the number of individualized instruction student credit hours from the total that are devoted to supervised doctoral dissertation.

Mark with "X" the box that indicates your academic calendar:

Semester:  Quarter:



**B. COST DATA: ACADEMIC AND FISCAL YEAR 2009-10**

1. Total student credit hours generated during Academic Year 2009-10, that were supported by the department/discipline instructional budget. (NOTE: Semester calendar institutions will typically report fall and spring student credit hours; quarter calendar institutions will report fall, winter, and spring student credit hours.)

0	A. Undergraduate
0	B. Graduate

2. Total direct expenditures for instruction in Fiscal Year 2009-10

\$0	A. Salaries	<i>Are the benefits included in the number reported for salaries(Y/N)?</i>	<input type="text"/>		<input type="text"/>
\$0	B. Benefits	<i>If the dollar value is NOT available, what percent of salary do benefits constitute at your inst.</i>		0.00%	0
\$0	C. Other than personnel expenditures.				0
\$0	D. Total (including benefits if it was calculated)				

3. Total direct expenditures for separately budgeted research activities in Fiscal Year 2009-10

\$0
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4. Total direct expenditures for separately budgeted public service activities in Fiscal Year 2009-10

\$0
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# UD's Data Collection Process (pre-PeopleSoft)

- SIS+ Mainframe system
- Course and Workload Verification – to clean up course files
- Data Sources:
  - Use course file for fall data (SCH, OCS, instructors of record)
  - HR fall official data for FTE and faculty levels
  - Finance data for instructional, research, and service expenditures
- Data linked to department funding the faculty's salary

## Transition to PeopleSoft

- UD data not in the Delaware Study for two years (2007 and 2008)!
  - PeopleSoft implementation
  - Staff changes
- Back to “square one”

## Our Challenges

- New to the Delaware Study
- Knowing your campus experts
  - Data owners and practices
  - Understanding their data
- Awareness of institutional data priorities
  - RBB (Responsibility Based Budgeting <http://www.udel.edu/Budget/rbb.html>)
  - ICOR (Instructor College of Record)



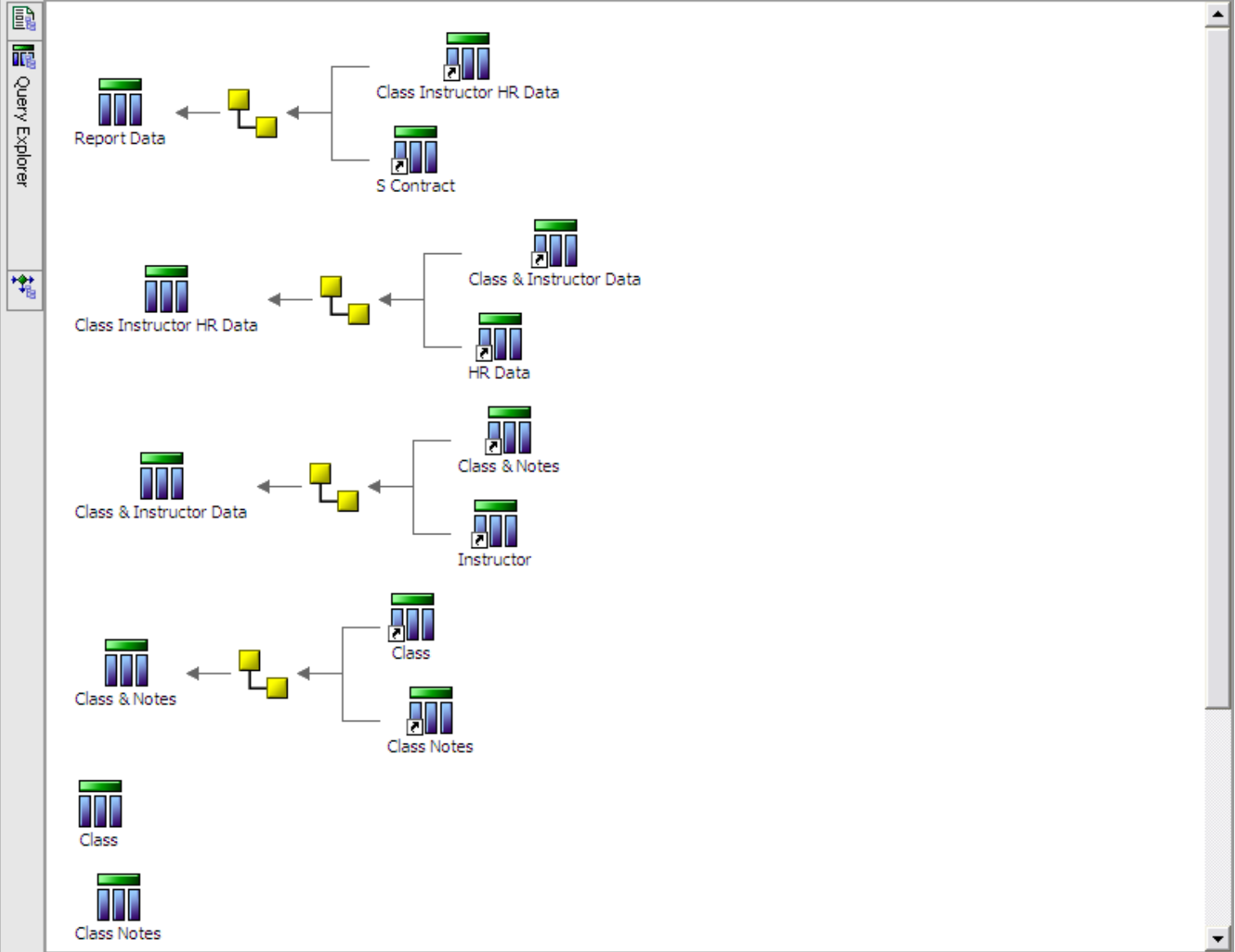
## New Process for Data Collection: How We Made it Work

- Balancing the “big picture” with the details
- Using the Data Warehouse to its full potential:  
Cognos Reporting
  - Student
  - HR
  - Finance



**Insertable Objects**

- Query
- Join
- Union
- Intersect
- Except
- SQL
- MDX



**Properties**

Empty area for defining query properties.

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- Insertable Objects**
- DE Study
    - ACAD\_PLAN\_ORG\_BR
    - ACADEMIC\_CAREER\_DM
    - ACADEMIC\_GROUP\_DM
    - ACADEMIC\_ORG\_DM
    - ACADEMIC\_PLAN\_DM
    - ACADEMIC\_PLAN\_SEQUENCE\_FC
    - ACADEMIC\_TERM\_DM
    - ACADEMIC\_TERM\_VALUES\_DM
    - ASSOCIATED\_CLASS\_FC
    - CAMPUS\_DM
    - CIP\_DM
    - Class Academic Term DM
    - Class Instructor Academic Term DM
    - CLASS\_ASSOC\_FIELDS\_DM

Query Explorer

- Data Items**
- Academic Term
  - Session Code
  - Class Number
  - Class Descr
  - Class DM Course ID
  - Course Offer Number
  - Subject
  - Catalog Nbr
  - Class Section
  - Student ID
  - Units Taken
  - Instructor
  - Instructor ID
  - Enrollment Total
  - STDNT\_ENRL\_STATUS
  - Component
  - Academic Org
  - ACADEMIC\_ORG\_LDESCR
  - Academic Org CURRENT\_FLAG
  - Academic Group
  - Academic Group Descr
  - Academic Group CURRENT\_FLAG
  - Academic Group EFFECTIVE\_STATUS
  - Acad Org Dept Tbl Current
  - Acad Org Dept Tbl DEPTID
  - Acad Org Dept Tbl EFF\_STATUS
  - Acad Org Dept Tbl DESCR
  - College-Dept
  - Course Level
  - Class

- Detail Filters**
- [SA\_DW].[CLASS\_DM].[ACADEMIC\_TERM] = '2098'
  - [Enrollment Total] > 0
  - [STDNT\_ENRL\_STATUS] = 'E'
  - [Academic Group CURRENT\_FLAG] = 'C'
  - [Academic Org CURRENT\_FLAG] = 'C'
  - [Acad Org Dept Tbl Current] = 'C'
  - [Academic Group] = 'AG'
  - [Class Number] = '15208'
  - [Class Number] = '13067'

- Summary Filters**

- Slicer**

**Properties - Detail Filter**

<b>Data</b>	
Expression	[SA_DW].[CLASS_DM].[ACADEMIC_TERM...]
<b>General</b>	
Usage	Required
Application	Before Auto Aggregation

Projected Data Items

Cognos Viewer - Windows Internet Explorer

https://cognos.udel.edu/cognos8/cgi-bin/cognos.cgi

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Favorites Cognos Cognos-dev FIPRD FIRPT HRRPT UDSIS

Cognos Viewer dlindsey About

HR Data Dept ID	HR Data Dept Descr	HR Data Sal Plan	HR Data Sal Plan Descr	HR Data FTE	HR Data Jobcode	HR Data JobCode Descr	HR Data Pay Status	HR Data Position Nbr	HR Data Tenure Status	HR Data Tenure Status Descr	Supp FTE	Instructor FTE	S Contract FTE	HR Data Instructor Classification	HR Data Adjusted FTE	HR Data Appointment Date
02150	Animal and Food Sciences	202	Professional, Full Time	1	235800	Laboratory Coordinator	Active			N/A	0.06	0.06	0.00	Supplemental Faculty	1	Oct 1, 2011
02150	Animal and Food Sciences	202	Professional, Full Time	1	235800	Laboratory Coordinator	Active			N/A	0.06	0.06	0.00	Supplemental Faculty	1	Oct 1, 2011
02150	Animal and Food Sciences	211	Faculty, Full Time	1	331000	Professor	Active		TEN	Tenured	0.06	1.00	0.00	Reg Faculty, Tenured/Tenure-Eligible	1	Oct 1, 2011
02150	Animal and Food Sciences	211	Faculty, Full Time	1	331000	Professor	Active		TEN	Tenured	0.06	1.00	0.00	Reg Faculty, Tenured/Tenure-Eligible	1	Oct 1, 2011
01401	Ctr for International Studies	202	Professional, Full Time	1	101200	Assoc Provost	Active		TEN	Tenured	0.07	0.07	0.00	Supplemental Faculty	1	Oct 1, 2011
01401	Ctr for International Studies	202	Professional, Full Time	1	101200	Assoc Provost	Active		TEN	Tenured	0.07	0.07	0.00	Supplemental Faculty	1	Oct 1, 2011
02150	Animal and Food Sciences	211	Faculty, Full Time	1	312000	Associate Professor	Active		TEN	Tenured	0.08	1.00	0.00	Reg Faculty, Tenured/Tenure-Eligible	1	Oct 1, 2011
02150	Animal and Food Sciences	211	Faculty, Full Time	1	310000	Assistant Professor	Active		NTK	Non Tenure On Track	0.04	1.00	0.00	Reg Faculty, Tenured/Tenure-Eligible	1	Oct 1, 2011
02150	Animal and Food Sciences	211	Faculty, Full Time	1	310000	Assistant Professor	Active		NTK	Non Tenure On Track	0.04	1.00	0.00	Reg Faculty, Tenured/Tenure-Eligible	1	Oct 1, 2011

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Cognos Viewer - Windows Internet Explorer

https://cognos.udel.edu/cognos8/cgi-bin/cognos.cgi

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Cognos Cognos-dev FIPRD FIRPT HRRPT UDSIS

Cognos Viewer

**Cognos Viewer** d lindsey About

Sal cr	HR Data FTE	HR Data Jobcode	HR Data JobCode Descr	HR Data Pay Status	HR Data Position Nbr	HR Data Tenure Status	HR Data Tenure Status Descr	Supp FTE	Instructor FTE	S Contract FTE	HR Data Instructor Classification	HR Data Adjusted FTE	HR Data As of Date	S Contract UD Semester Yr CD	S Contract UD Semester Cd	S Contract Acct CD	Co Er
ull	1	327000	Instructor	Active		NOT	Non Tenure Continuing	0.33	0.33	0.33	Reg Faculty, Other Regular Faculty	1	Oct 1, 2009	09	A	ACCT112111121400000A44716	17
ntal	0	330500	Supplemental Faculty	Active		SCN	S Contract Status Only	0.25	0.25	0.25	Supplemental Faculty	0	Oct 1, 2009	09	A	ACCT112111121500000A44939	50

Done

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## Lessons Learned

- Start early
- Know your resources and campus data experts
- Course and Workload Verification is key to reporting accurate data
- Understand the “budget units” your academic departments occupy
- Keep in mind institutional data rules and priorities
- Create a flow-chart or map of how all the data elements will join together
- Always keep the big picture in mind, and revise your methods as you make improvements

Dare to be first.



## Questions?

Allison M. Walters ~ Delaware Study manager

[awalters@udel.edu](mailto:awalters@udel.edu)

302-831-2021

Denise M. Lindsey ~ Data Warehouse analyst

[dlindsey@udel.edu](mailto:dlindsey@udel.edu)

302-831-3107

Thank you!