Instructional Effort Reporting at Indiana University

Instructional Effort Reporting (IER) is a view of course enrollment data, the faculty who teach the courses, an approximation of their time spent teaching a course, and the cost associated with the instruction.

Instructional effort reporting at Indiana University has undergone a redesign starting with the Fall 2015 data. The redesign resulted from the transition of the transition of the process that builds the dataset from the University Budget Office to University Institutional Research and Reporting.

Overview of the new process:

- Extract enrollment data after the Corrected Grades date (fall and spring terms only)
  - Some courses are excluded (ie, MED, SCS, OVST…)
- Instructors for each course are added using the following logic
  - If a course does not have an instructor in SIS, the course is not included in the IER
  - Only instructors with a role of Primary, Secondary or Assistant Instructor are included
  - If a course has a supervisory instructor listed as the only instructor, an assumption is made to add an AI, with a generic ID, as the instructor for that class.
- Human Resources data for each instructor is pulled in. This includes academic title, and a faculty category.
- A course FTE (the amount of time an instructor spends teaching a course from the account) is determined for each course and faculty category based on averages of the data from the past 4 years. It is worth noting that this value could vary quite a bit from previous years for the same course and instructor type due to this averaging.
- A general funds record is selected (or is attempted to be selected) to be used for the funding source for the instructor, based on the financial org of the class and the instructor's funding.
- Calculations are performed using an instructors FTE, the course FTE, compensation, sections, units, and enrollment.

Comparison of old and new IER process

IER Differences	
2015	**2014 and prior**
Class and instructor data is from after Corrected Grades timeframe	Class and instructor data was from near Census date.
Med,NSXP,ASCS,SCS,OVST, and -OS courses are excluded	Med,NSXP,ASCS,SCS,OVST, and -OS courses are excluded
An attempt is made to look up a general fund account for the instructor of record to determine the instructor funding. If one is not found, the default mapping from years past was used (this was a very small percentage that fell into this category)	A default mapping for every course to an KFS rc/org/account was maintained by UBO to be used as the KFS info for the instructor funding
We have spent a great deal of time and effort working with Registrars to clean up instructor data in SIS so it reflects who is instructing the course. In some cases we have written some business rules to do some cleanup, based on past data. We hope to continue to improve the instructor data in SIS in the future.	UBO had departments complete a survey where they would specify instructors separate from what is in SIS (prefilled from SIS).
We averaged the CFTE values over the past 4 years to create a new default CFTE table. This was used to set the CFTE per course/faculty type, based on a hierarchy of matching decisions	UBO carried over CFTE from the previous year, and the survey users could adjust it as needed.
Bloomington Faculty Affairs provided us with logic against HR tables that would select and produce a set of data for faculty that included academic title, classification, salary plan and grade, along with other data.	UBO used payroll data.
UBO had created a mapping that mapped salary plan and grade to a faculty category. We used this table in 2015.	UBO had created a mapping that mapped salary plan and grade to a faculty category.
The faculty data logic also provided us with more accurate information on Grad Students teaching classes. We are using actual ids now, and looking up their pay on the contract pay table, which produces a more accurate cost. So, if we have a university ID for an AI, we will have an associated cost. If we are deriving an AI based on a PI or VI business rule, and do not have a specific university ID, the cost will be 0.	All generic ids selected in the KFS survey were given a cost of 0.
Subject / CIP mappings are now being maintained in SIS. UIRR/USSS are auditing missing CIP's and updating the SIS rows.	

Important Differences when comparing IER instructor allocated units with official enrollment numbers

IER instructor allocated units are the share of the total class units allocated to the instructor on this record. Summing these units will *NOT* match the sum of enrolled hours on official enrollment reports, due to the following differences:

- IER only includes classes who have had instructors assigned in SIS
- IER counts both enrolled students and audit students
- IER uses student enrollment date snapshotted after Corrected Grades (after the end of the term)
- IER does not include all subjects

IR_INSTR_EFFRT_GT columns and descriptions		
ACAD_TERM_CD	Term	Academic Term Code
INST_CD	Institution	Institution Code
CRS_CMP_CD	Campus	Course Campus Code
CLS_NBR	Cls Nbr	Class Number
CRS_SUBJ_CD	Subject	Course Subject Code
CRS_CATLG_NBR	Catalog Nbr	Course Catalog Number
CRS_CMPNT_CD	Component	Course Component Code (ie, LEC=lecture,LAB=laboratory…)
CRS_SUBJ_CIP_CD	CIP	Course Subject CIP Code contains a CIP assigned to the course subject code
CRS_DESC	Course Desc	Course description
ACAD_ORG_CD	Acad Org	Academic Organization of the course
ACAD_GRP_CD	Acad Grp	Academic Group of the course
CRS_ACCOUNT_NBR	Crs Acct	Account Number that receives income for the course
CRS_RC_CD	Crs RC	Responsibility Center that receives income for the course
CRS_ORG_CD	Crs Fin Org	Financial Organization that receives income for the course
CLS_DRVD_LVL_CD	Drvd Lvl	Derived Level Code for the course (100,200,300,400,GRAD)
ACP_IND	ACP	Indicates if the course is an ACP course
SWGEC_IND	SWGEC	Indicates if the course is a Statewide General Education Core course
SWT_IND	SWT	Indicates if the course is a Statewide Tech course
CLS_INSTRC_MODE_CD	Inctrc Mode	Class instruction mode (ie, in person, online, hybrid, …)
CLS_INSTRC_MODE_DESC	Inctrc Mode	Class Instruction Mode description
CMP_LOC_CD	Loc	Campus location of the course
ONLINE_CRS_IND	Online	Indicates if the course is an online course
OCC_CRS_IND	OCC	Indicates if the course is an OCC (online class connect)
ACAD_UNT_TKN_NBR	Units	Maximum units for the course
CLS_TOT_ENRL_NBR	Tot Enrl	Total enrollment in the class. Please note, if the class has multiple instructors, this value is duplicated across each row. Refer to the column, INSTR_ALLOC_ENRL_NBR, for an instructors portion of the class enrollment
FR_ENRL_NBR	Fresh Enrl	Number of freshman enrolled. Value duplicated if multiple instructors for class.
SO_ENRL_NBR	Soph Enrl	Number of sophomores enrolled. Value duplicated if multiple instructors for class.
JR_ENRL_NBR	Jr Enrl	Number of juniors enrolled. Value duplicated if multiple instructors for class.
SR_ENRL_NBR	Sr Enrl	Number of seniors enrolled. Value duplicated if multiple instructors for class.

MAS_ENRL_NBR	Mas Enrl	Number of masters enrolled. Value duplicated if multiple instructors for class.
PROF_ENRL_NBR	Prof Enrl	Number of professional enrolled. Value duplicated if multiple instructors for class.
DOC_ENRL_NBR	PhD Enrl	Number of doctoral enrolled. Value duplicated if multiple instructors for class.
NDU_ENRL_NBR	NDU Enrl	Number of non-degree undergraduates enrolled. Value duplicated if multiple instructors for class.
NDG_ENRL_NBR	NDG Enrl	Number of non-degree graduates enrolled. Value duplicated if multiple instructors for class.
AUD_ENRL_NBR	Aud	Number of auditors. Value duplicated if multiple instructors for class.
OTHER_ENRL_NBR	Othr Enrl	Number of other students enrolled. Value duplicated if multiple instructors for class.
FR_UNT_NBR	Fr Unt	Number of freshman units taken. Value duplicated if multiple instructors for class.
SO_UNT_NBR	Soph Unt	Number of sophomores units taken. Value duplicated if multiple instructors for class.
JR_UNT_NBR	Jr Unt	Number of juniors units taken. Value duplicated if multiple instructors for class.
SR_UNT_NBR	Sr Unt	Number of seniors units taken. Value duplicated if multiple instructors for class.
MAS_UNT_NBR	Mas Unt	Number of masters units taken. Value duplicated if multiple instructors for class.
PROF_UNT_NBR	Prof Unt	Number of professional units taken. Value duplicated if multiple instructors for class.
DOC_UNT_NBR	PhD Unt	Number of doctoral units taken. Value duplicated if multiple instructors for class.
NDU_UNT_NBR	NDU Unt	Number of non-degree undergraduates units taken. Value duplicated if multiple instructors for class.
NDG_UNT_NBR	NDG Unt	Number of non-degree graduates units taken. Value duplicated if multiple instructors for class.
AUD_UNT_NBR	Aud Unt	Number of auditor units taken. Value duplicated if multiple instructors for class.
OTHER_ENRL_UNITS_NBR	Othr Unt	Number of other students units taken. Value duplicated if multiple instructors for class.
CLS_TOT_UNT_TKN_NBR	Tot Unt	Total units taken by all students in the class. Please note, if the class has multiple instructors, this value is duplicated across each row. Refer to the column, INSTR_ALLOC_UNT_NBR, for an instructors portion of the class enrollment
IER_DRVD_CLS_INSTR_ROLE_CD	Instr Role	Derived class instructor role. PI=Primary Instructor, SI=Secondary Instructor, AI=Assistant Instructor. PI and SI will come from SIS, AI may come directly from SIS< but it may also be a case where a class had a VI (Supervisory instructor), which implies it was taught by a graduate student or other fauclty/staff that fals into the 'other ' category.
IER_DRVD_CLS_INSTR_ID	Instr ID	Derived class instructor ID contains the university ID of the faculty teaching the class, unless it was a case where a supervisory instructor was liasted, and we changed it to ACADOTHR.
IER_DRVD_CLS_INSTR_NM	Instr Nm	Instructor name, unless ID=ACADOTHR, then Academic Other.
HRS_INSTR_TYP_CD	Instr Typ CD	Instructor type codes
HRS_INSTR_TYP_DESC		Instructor Type descriptions - high level categories of faculty (ie, tenure faculty, clinical faculty, adjuncy faculty, etc)
HRS_INSTR_CLSIF_DESC		Detailed breakdown of faculty categories

HRS_INSTR_TNR_ELIG_IND		Y//N if tenure eligible
HRS_ACAD_ADMIN_IND		Y/N if academic administrator
INSTR_TYP_DESC	Instr type	Genreal instructor type (Graduate Student Academic Appointee,Not Tenure Eligible,Tenure Eligible)
CLS_INSTR_TYP_CD	Fac Category	Detail instructor type (0=tenure-track faculty, 1=clinical faculty, 2=lecturer, 3= academic administrator, 4=visiting faculty,5=professor of practice,6=part-time faculty,7=adjunct faculty, 8 = graduate student appt, 9 = all other)
CLS_INSTR_TYP_DESC	Fac Category Desc	Detail instructor type description - see above
INSTR_CRS_FTE_QTY	Crs FTE	The percentage of a full-time work week the instructor spent on this course from this account
JOB_FUND_FTE_RT	Job FTE	Job fund FTE
SF_GL_ASSD_AMT	Assd Amt	Total amount assessed for the class from tuition and fees
INSTR_ACCOUNT_NBR	Instr Acct	Account Number used to pay the instructors salary
INSTR_ACCOUNT_NM	Instr Acct	Account Name used to pay the instructors salary
INSTR_RC_CD	Instr RC	Responsibility Center used to pay the instructors salary
INSTR_RC_NM	Instr RC	Responsibility Center Nameused to pay the instructors salary
INSTR_ORG_CD	Instr Org	Financial Organization code used to pay the instructors salary
PYRL_CMP_CD	Pyrl Cmp	Payroll campus
CST_FCTR_NBR	Cost Factor	This is the cost factor for the course (the percent of compensation from the account that pays the instructor for the course). So, if the instructor is paid 75% of her compensation from this account, and the "CFTE" is 25, this factor will be 25/75 or .33333... A third of the instructor's compensation for the semester (0.5 of JOB_COMP_ANNL_RT) is paid for teaching this course.
CRS_DRCT_COST_NBR	Cost	This field is just the CST_FCTR_NBR (the cost factor) times one half of the JOB_COMP_ANNL_RT (since only half the salary is paid in a given semester), and represents the portion of the instructor's annual salary directly paying for this course (assuming the CFTE is correct).
INSTR_ALLOC_SEC_NBR	Scrn Taught	The amount of the class section allocated to the instructor on this record. It will be 1 if there is only 1 instructor, less than 1 if multiple instrcutors.
INSTR_ALLOC_UNT_NBR	CrHr Taught	The share of the total class units allocated to the instructor on this record.
INSTR_ALLOC_ENRL_NBR	Enrl	The share of the total class enrollment allocated to the instructor on this record.
CRS_TYP_CD	Crs Typ	Course type code (IND if the course component is IND, ITN, PCT, RDS, RES, THE, otherwise =GRP)
NOTES_TXT	Notes	These are notes made during the build process to provide explanation for changes to the instructor id/role based on business rules