

Flight Tracker Consortium Meeting



May 6, 2020
Reporting and NIH Tables

Presentation by Rebecca Helton and Scott Pearson

Meeting Agenda



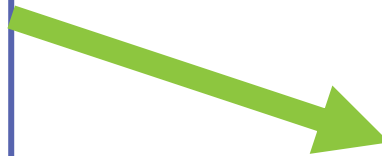
- Reporting and NIH Tables - Rebecca Helton and Scott Pearson (Vanderbilt)
- What's New and What's Next?
 - Proposed Survey Changes – Update
 - ORCID identifiers now pulled via overnight cron
 - Connectivity Checker
 - Next Meeting: Ongoing Use and External Data-Sharing

Payoff of Tracking



Increased Upfront Work

Data Collection
Data Verification
Setup of Flight Tracker
System



Decreased Compilation Time

Faster Reporting
Increased Accuracy
Scientific Analysis
Less Stress
➔ Better Results

Main Presentation Outline



- Eight Use Cases: Leveraging REDCap Reporting to Answer Real Questions
- Using Flight Tracker for Reporting to the NIH (forthcoming)

Use Cases of REDCap Reports



1. Pulling a list/characteristics of those who would have been eligible for a training grant had it been in existence then (for new applications)
2. List of all current K awardees for targeted announcements
3. Choosing a mentor to receive an award by looking at who had mentored the most people in our database
4. Finding everyone in a particular department or division for reported or targeted messaging
5. Reporting on scholars' resource use (or publications, grants, etc.) to program directors

Use Cases of REDCap Reports



6. Finding who is in a particular year of their award in order to target announcements about resources or opportunities (i.e., target those in last three years of a K award for an R01 planning course)
7. Generating list of people with a K who took the K grant pacing workshop to ask one of them to come speak at the workshop
8. Looking up MDs in critical care-related departments to send a care package during the COVID crisis

Use Cases #1: Mentors



First Name identifier_ first_name	Last Name identifier_last_ name	Primary Mentor summary_mentor	Mentor Override override_ mentor	Mentor Override by user override_ mentor_ user	Primary mentor during your K/K12 training period followup_ primary_mentor	Primary mentor during your K/K12 training period check_ primary_ mentor	Mentor 1 newman_data_ mentor1	Mentor 2 newman_ data_ mentor2	Mentor 1 newman_ sheet2_ mentor1	Mentor 2 newman_ sheet2_ mentor2	Mentor newman_ new_ mentor1	PRIMARY mentor (Please type Lastname, Firstname) vfrs_ mentor1
							Ikizler, Alp		Ikizler, Alp			Kendall, Peggy
							Moses, Hal		Moses, Hal			
							Roden, Dan		Roden, Dan			
		Blot William					Blot, William		Blot, William			
					Blot William							
		Scott Baldwin					Baldwin, H. Scott	Caprioli, Richard	Baldwin, H. Scott	Caprioli, Richard		
					Scott Baldwin							
		Italo Biaggioni					Biaggioni, Italo					
					Italo Biaggioni							
		Tina V. Hartert					Hartert, Tina		Hartert, Tina			
					Tina V. Hartert							
		Ann Richmond, PhD and Andries Zijlstra, PhD					Zijlstra, Andries	Clark, Peter; Richmond, Ann	Zijlstra, Andries	Clark, Peter; Moses, Hal		
					Ann Richmond							

Use Cases #1: Mentors



First Name identifier_first_name	Last Name identifier_last_name	Primary Mentor summary_mentor	Mentor Override override_mentor	Mentor Override by user override_mentor_user	Primary mentor during your K/K12 training period followup_primary_mentor	Primary mentor during your K/K12 training period check_primary_mentor	Mentor 1 newman_data_mentor1	Mentor 2 newman_data_mentor2	Mentor 1 newman_sheet2_mentor1	Mentor 2 newman_sheet2_mentor2	Mentor newman_new_mentor1	PRIMARY mentor (Please type Lastname, Firstname) vfrs_mentor1
							Ikizler, Alp		Ikizler, Alp			Kendall, Peggy
							Moses, Hal		Moses, Hal			
							Roden, Dan		Roden, Dan			
		Blot William					Blot, William		Blot, William			
					Blot William							
		Scott Baldwin					Baldwin, H. Scott	Caprioli, Richard	Baldwin, H. Scott	Caprioli, Richard		
					Scott Baldwin							
		Italo Biaggioni					Biaggioni, Italo					
					Italo Biaggioni							
		Tina V. Hartert					Hartert, Tina		Hartert, Tina			
					Tina V. Hartert							
		Ann Richmond, PhD and Andries Zijlstra, PhD					Zijlstra, Andries	Clark, Peter; Richmond, Ann	Zijlstra, Andries	Clark, Peter; Moses, Hal		
					Ann Richmond							

STEP 2

Fields to include in report

+ Quick Add

Add all fields from selected instrument: -- choose instrument --

Field 1	record_id "Record Id"		Instrument: Identifiers	X
Field 2	identifier_first_name "First Name"		Instrument: Identifiers	X
Field 3	identifier_last_name "Last Name"		Instrument: Identifiers	X
Field 4	summary_mentor "Primary Mentor"		Instrument: Summary	X
Field 5	override_mentor "Mentor Override"		Instrument: Manual	X
Field 6	override_mentor_user "Mentor Override		Instrument: Manual	X
Field 7	followup_primary_mentor "Primary ment		Instrument: Followup	X
Field 8	check_primary_mentor "Primary mentor		Instrument: Initial Survey	X
Field 9	newman_data_mentor1 "Mentor 1"		Instrument: Data	X
Field 10	newman_data_mentor2 "Mentor 2"		Instrument: Data	X
Field 11	newman_sheet2_mentor1 "Mentor 1"		Instrument: Sheet2	X
Field 12	newman_sheet2_mentor2 "Mentor 2"		Instrument: Sheet2	X
Field 13	newman_new_mentor1 "Mentor"		Instrument: New 2017	X
Field 14	vfrs_mentor1 "PRIMARY mentor (Please t		Instrument: Pre Screening Survey	X
Field 15	vfrs_mentor2 "Mentor No. 2 (Please type		Instrument: Pre Screening Survey	X
Field 16	vfrs_mentor3 "Mentor No. 3 (Please type		Instrument: Pre Screening Survey	X
Field 17	vfrs_mentor4 "Mentor No. 4 (Please type		Instrument: Pre Screening Survey	X
Field 18	vfrs_mentor5 "Mentor No. 5 (Please type		Instrument: Pre Screening Survey	X
Field 19	Type variable name or field label		Instrument:	



Use Cases #2: Resource Use



Record Id record_id	Repeat Instrument redcap_repeat_instrument	Repeat Instance redcap_repeat_instance	Date Used resources_date	Resource Used resources_resource	Notes (optional) resources_note
1					
1	Resources	1		Grant Pacing (1)	
2					
3					
3	Resources	1	01-27-2012	Studio (6)	Italo Biaggioni Al George Erik Boczko Matt Shotwell Tyler Barrett Dawood Darbar
4					
4	Resources	1	09-06-2019	Studio (6)	Frank Harrell Claudia Barajas Qiyuin Cai Stephen Deppen Pierre Massion Martha Shrubsole
4	Resources	2		Edge for Scholars (2)	
4	Resources	3		Manuscript Sprint (4)	
4	Resources	4	06-28-2019	Edge for Scholars (2)	
4	Resources	5	06-28-2019	Grant Pacing (1)	
5					
6					
6	Resources	1	01-14-2013	Studio (6)	Alp Ikizler Cheryl Laffer Fernando Elijevovich Leena Choi Stephen Camarata

Use Cases #2: Resource Use



STEP 2

Fields to include in report

+ Quick Add

Add all fields from selected instrument: -- choose instrument --

Field 1	record_id "Record Id"		Instrument: Identifiers	
Field 2	resources_date "Date Used"		Instrument: Resources	
Field 3	resources_resource "Resource Used"		Instrument: Resources	
Field 4	resources_note "Notes (optional)"		Instrument: Resources	
Field 5	Type variable name or field label		Instrument:	

Use Cases #2: Resource Use



STEP 2

Fields to include in report + Quick Add Add all fields from selected instrument: -- choose instrument --

Field 1	record_id "Record Id"	Instrument: Identifiers	X
Field 2	resources_date "Date Used"	Instrument: Resources	X
Field 3	resources_resource "Resource Used"	Instrument: Resources	X
Field 4	resources_note "Notes (optional)"	Instrument: Resources	X
Field 5	summary_award_sponsorno_1 "Award Sp	Instrument: Summary	X
Field 6	summary_award_date_1 "Award Date #1"	Instrument: Summary	X
Field 7	summary_award_end_date_1 "Award End	Instrument: Summary	X
Field 8	summary_award_sponsorno_2 "Award Sp	Instrument: Summary	X
Field 9	summary_award_date_2 "Award Date #2"	Instrument: Summary	X
Field 10	summary_award_end_date_2 "Award End	Instrument: Summary	X
Field 11	summary_award_sponsorno_3 "Award Sp	Instrument: Summary	X
Field 12	summary_award_date_3 "Award Date #3"	Instrument: Summary	X
Field 13	summary_award_end_date_3 "Award End	Instrument: Summary	X
Field 14	Type variable name or field label		

Questions or Comments?



NIH Reporting Tables



- Caveats
- Relevant Groups of Scholars
 - Pre-Docs
 - Post-Docs
 - Mentors
- Other Data Sources
- Suitable Tables
 - Common Metrics
 - Table 5 – Publications
 - Table 6 – Demographics
 - Table 8 – Outcomes

Caveats



- Your tables are only as good as your data.
- Some of these data are not downloadable. They must be manually entered.
- We currently do not have any way to upload your tables into xTRACT.
- We plan to test these internally for our CTSA renewal before releasing to the Consortium later this year. (If you have more immediate needs, please be in touch as we could use you as an early tester.)
- Certain pieces of data are missing and will be noted as such in the tables.

**These tables, therefore, are supplied as a guide,
not as a final product.**

Relevant Groups of Scholars



- Pre-Docs vs. Post-Docs
 - Appointed to a training grant in the Custom Grants (manual entry)
 - Select the **Role on Grant** as **Pre-doctoral Trainee** or **Post-doctoral Trainee**

Flight Tracker - TL1 (Test Copy)

Actions: [Modify instrument](#) [Download PDF of instrument\(s\)](#) [VIDEO: Basic data entry](#)

Custom Grant

Editing existing Record Id

Record Id 24

The Custom Grants form tracks grant awards (e.g., for PIs or Co-PIs) or appointments to a grant (e.g., for trainees).

Grant Title

Grant Number or Funding Mechanism or Funding Mechanism (e.g., 1R01HL1234...)

Grant Type * must provide value

Sponsoring Organization (e.g., NIH, CDC, VA)

Recipient Organization (e.g., Vanderbilt)

Role on Grant

Start Date * must provide value

End Date

Direct costs from start date to end date A whole number without a dollar sign and without commas

Last Updated Today Y-M-D

Form Status

Role on Grant dropdown menu:

- PI
- Co-PI
- Co-I
- Other
- Trainee
- Pre-doctoral Trainee
- Post-doctoral Trainee

Mentors



- Calculated/Summarized field
- Potential Sources
 - New Scholar Import
 - Manual Import form
 - Initial Survey to Scholars
 - Follow-up Survey to Scholars
- Stored in **summary_mentor** field; recalculated nightly
- This field is central to NIH's reporting process

<input type="checkbox"/> Data Collection Instrument	Status
Identifiers	<input checked="" type="radio"/>
Summary	<input checked="" type="radio"/>
Position Change	<input checked="" type="radio"/> +
Initial Survey (survey)	<input type="radio"/>
Custom Grant	<input type="radio"/>
Reporter	<input type="radio"/>
Followup (survey)	<input type="radio"/>
Exporter	<input type="radio"/>
Citation	<input checked="" type="radio"/> +
Honors And Awards	<input type="radio"/>
Resources	<input type="radio"/>
Manual Import	<input type="radio"/>

Other Data Sources



- Citations – Downloaded weekly from PubMed; must be wrangled
- Grants – Downloaded weekly; must be wrangled
- Demographic information – calculated from input fields
 - From manual entry, surveys, spreadsheets
 - Gender, URM status, job placements
- Start of Funding, End of Funding – Custom Grants
- Start of Time with Program (orientation) – Identifiers

Position Changes



Record Id	16
Job Title <small>* must provide value</small>	<input type="text" value="Postdoctoral Fellow"/>
Job Category <small>* must provide value</small>	<p><input type="radio"/> Academia, still research-dominant (PI) <input type="radio"/> Academia, still research-dominant (Staff) <input type="radio"/> Academia, not research dominant <input type="radio"/> Academia, training program <input type="radio"/> Private practice <input checked="" type="radio"/> Industry, federal, non-profit, or other - research dominant <input type="radio"/> Industry, federal, non-profit, or other - not research dominant</p> <p style="text-align: right;">reset</p>
New Institution/Organization (if applicable)	<input type="text" value="National Cancer Institute"/>
Date Effected	<input type="text" value=""/> <input type="button" value="Today"/> M-D-Y
New Department (if applicable)	<input type="text" value="Metabolic Epidemiology Branch"/>
New Division (if applicable)	<input type="text" value="Division of Cancer Epidemiology and Genetics"/>
Date Entered	<input type="text" value="2020-03-18"/> <input type="button" value="Today"/> Y-M-D

Translated into
NIH Categories

Specific NIH Tables



Predoctoral Scholars (2)
Britney Grayson, Michelle Baglia
Postdoctoral Scholars (1)
Jea-Young Min
Common Metrics Table
Common Metrics
Table 5: Publications of Those in Training
5A - Publications of Those in Training: Predoctoral
5B - Publications of Those in Training: Postdoctoral
Table 6: Applicants, Entrants, and Their Characteristics for the Past Five Years
6A Part II - Applicants, Entrants, and Their Characteristics for the Past Five Years: Predoctoral - Characteristics
6B Part II - Applicants, Entrants, and Their Characteristics for the Past Five Years: Postdoctoral - Characteristics
Table 8: Program Outcomes
8A Part I - Program Outcomes: Predoctoral - Those Appointed to the Training Grant
8A Part III - Program Outcomes: Predoctoral - Recent Graduates
8A Part IV - Program Outcomes: Predoctoral - Program Statistics
8C Part I - Program Outcomes: Postdoctoral - Those Appointed to the Training Grant
8C Part III - Program Outcomes: Postdoctoral - Recent Graduates
<small>Copyright © 2020 Vanderbilt University Medical Center from Edge for Scholars Powered by REDCap</small>
<small>funded by CTSA Clinical & Translational Science Awards Program</small>

Caveat



These reports show **fake data** that were used for prototyping and testing. Only a few data points were used. We will soon begin the process of testing with real data.

Common Metrics



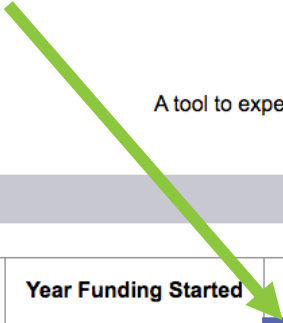
TL1

Table Common Metrics

[Back to All Tables](#)

A tool to expedite reporting to the NIH, this table should be considered **preliminary** and requiring manual verification.

Common Metrics



First Name	Last Name	Year Funding Started	Year Funding Ended	Classification	Engaged in Research	URM?	Gender	Notes
Jea-Young	Min	2014-08-01	None Specified	None Specified	Y	None Specified	Female	None Specified
Britney	Grayson	2004-06-01	2012-06-01	Faculty	Y	Yes	Female	None Specified
Michelle	Baglia	2016-06-01	2018-06-01	Researcher/Industry	Y	None Specified	None Specified	None Specified

K: From first Internal K or K12
T: From custom grants in Trainee role

Job Categories
For T only

Table 5 – Publications



Table 5A

[Back to All Tables](#)

Primary
Mentor

A tool to expedite reporting to the NIH, this table should be considered **preliminary** and requiring manual verification. Its information must be re-keyed and uploaded through xTRACT.

Publications of Those in Training: Predoctoral

Trainee Name	Faculty Member	Past or Current Trainee	Training Period	Publication
Britney Grayson	Thomas Aune	Past	2004-2012	Grayson BL , Smith ME, Thomas JW, Wang L, Dexheimer P, Jeffrey J, Fain PR, Nanduri P, Eisenbarth GS, Aune TM, 2010, Genome-wide analysis of copy number variation in type 1 diabetes, PLoS ONE, 5:e15393.
Michelle Baglia	Xaio Xu	Past	2016-2018	Baglia ML , Zheng W, Li H, Yang G, Gao J, Gao YT, Shu XO, 2016, The association of soy food consumption with the risk of subtype of breast cancers defined by hormone receptor and HER2 status, Int. J. Cancer, 139:742-8.

Citations in requested NIH format
 PubMed IDs only
 Names in bold

Table 6 – Characteristics



Previous 5 years' worth of data on 5 tables



Start Date at Institution



By Start Date of Training Grant



Previous Year: 2015-2016	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Entrants Appointed to this Grant (Renewal/Revision Applications Only)
Mean Months of Prior, Full-Time Research Experience (range)			Not Available	Not Available	6.0 (6.0-6.0)
Prior Institutions			Not Available	Not Available	Test Undergrad University
Percent with a Disability			Not Available	Not Available	100%
Percent from Underrepresented Racial & Ethnic Groups			Not Available	Not Available	100%
Mean GPA (range)	Not Available	Not Available	Not Available	Not Available	3.5 (3.5-3.5)

Table 8 – Outcomes



from Survey (T);
from Grant Title (K)

Stored in Identifiers Form From Degree Inputs **Table 8A Part I** Position Change Information Downloaded Grants

Start Date at Institution

[Back to All Tables](#)

A tool to expedite reporting to the NIH, this table should be considered **preliminary** and requiring manual verification. Its information must be re-keyed and uploaded through xTRACT.

Program Outcomes: Predoctoral - Those Appointed to the Training Grant

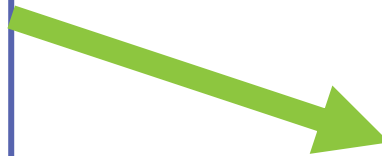
Trainee	Faculty Member	Start Date	Summary of Support During Training	Terminal Degree(s) Received and Year(s)	Topic of Research Project (From check_degree0_topic)	Initial Position Department Institution Activity	Current Position Department Institution Activity	Subsequent Grant(s)/Role Year Awarded
Grayson, Britney	Aune, Thomas	2005-01-01	<p>Please Edit</p> <p>TY1: TL1 TY2: ASDF</p>	In Training	None Specified	<p>Assistant Professor</p> <p>None Specified</p> <p>Indiana University Research-Related</p>	<p>Assistant Professor</p> <p>None Specified</p> <p>Indiana University Research-Related</p>	None Specified
Baglia, Michelle	Xu, Xiaio	2016-06-01	<p>Please Edit</p>	In Training	None Specified	<p>Epidemiology Manager</p> <p>None Specified</p> <p>Amgen Research-Intensive</p>	<p>Epidemiology Manager</p> <p>None Specified</p> <p>Amgen Research-Intensive</p>	None Specified

Payoff of Tracking



Increased Upfront Work

Data Collection
Data Verification
Setup of Flight Tracker System



Decreased Compilation Time

Faster Reporting
Increased Accuracy
Scientific Analysis
Less Stress
➔ Better Results

Questions or Comments?



Proposed Changes



- Adding the (99) **Prefer Not to Answer** option for race/ethnicity, gender, and disability status. Also adding (98) **Unknown** option for race/ethnicity.
- For gender, since Flight Tracker primarily functions to map to NIH values, we will not add a **Non-Binary** option. **Prefer Not to Answer** will always be available.
 - Should our mapping target change, we will change accordingly.
- Changes will be in version 2.13.2, scheduled for release on Friday.

What's New and What's Next?



What's New?

- ORCID identifiers – now being scraped from the ORCID site. Email if multiple options.
- New Connectivity Checker (under General menu)

What's Next?

- Continued testing of NIH Tables (Any CTSA renewals coming up?)
- Data-sharing among Flight Tracker instances at one institution (avoid “over-surveying”)
- Next Meeting: Ongoing Use and External Data-Sharing