

EFFICIENCY AND EFFECTIVENESS: CROSS-INSTITUTIONAL COMPARISON OF WORKFLOW TRACKING SYSTEMS

Jeff Marks, Cal State San Marcos
Kalin Agrawal, Cal State Los Angeles
Sunny Moon, Cal State Los Angeles

California Association for Institutional Research
44th Annual Conference
November 6-8, 2019
Embassy Suites Seaside, Monterey California

- ▶ **Decision Support Group** formed (Joint IITS, IR, Enrollment Management and other entities) to discuss data issues and requests
- ▶ **Data Request and Tracking process** formed to develop a process for tracking, assigning and declining data requests
- ▶ **Improving the Process of Analysis** with new data warehouse and visualization tools, loads of SELF SERVE data available
- ▶ **Data Governance Committee** formed to develop, implement and enforce data policies and to ensure data are vetted

DEVELOPMENT OF PROCESSES AND GOVERNANCE, 2015-PRESENT

DECISION SUPPORT GROUP (DSG)



- ▶ Consists of key IITS, IR, Enrollment Management, Community Engagement professionals
- ▶ Meets bi-weekly for 1 hour
- ▶ Creates collaboration and communication, access to each other
- ▶ Discusses upcoming issues and events, due dates, and initiatives
 - ▶ HIPS, GI 2025, the infamous B-P files
- ▶ Discusses data request process, workload, who gets what requests
 - ▶ Institutional and static reportable data to IR
 - ▶ Queries and RaDAR report enhancements to IITS
 - ▶ Complex queries to the **Data Authority** in various departments

IMPROVING THE PROCESS OF ANALYSIS: SELF-SERVE REPORTS

California State University
SAN MARCOS

STUDENT PROFILE - ENROLLED STUDENTS

Home : Report Repository : All Reports

Report Notes: Fall terms only. Based on static ERS files. Stateside students only. Descriptions of selected variables used in the profile can be found at <http://www.csum.edu>

Year: College:

Student Type: Major:

Data Format:

1 of 3 | Select a format | Export

Parameter	Value
Report Execution Date	11/14/2016 12:15:13 PM
Year	2016, 2015, 2014, 2013, 2012
Major	Accounting, Anthropology, Applied Physics, Biochemistry, Biology, Biotechnology, Business Admin (genl & pre-bus), Cell Biology, Chemistry, Child Development/Early Childhood Education, Communications, Comput Education - MA, Exercise Physiology, Finance, Global Business Management, Global Studies, Global Supply Chain Management, High Technology Management, History, Human Development, Info Systems, Kinesolo Systems, Marketing, Mass Media, Mathematics, Music, Nursing, Physiology, Political Science, Pre-Nursing, Pre-Physical Therapy, Psychology, Social Sciences, Sociology, Spanish, Special Major, Undeclared, Visual &
Student Level	Undergraduate
College	College of Business Administration, College of Education, Health and Human Svcs, College of Hum, Arts, Behavioral, & Soc Sciences, College of Science and Mathematics, Undeclared Major
Data Format	Both

Profile of All Students for Fall Term

College	2012	2013	2014	2015	2016					
College of Business Administration	19.0%	1891	18.6%	2002	18.9%	2189	18.0%	2189	18.2%	2281
College of Education, Health and Human Svcs	20.2%	2008	20.8%	2232	21.1%	2437	21.0%	2553	20.6%	2584
College of Hum, Arts, Behavioral, & Soc Sciences	41.6%	4135	40.6%	4357	40.2%	4650	40.2%	4902	41.3%	5174
College of Science and Mathematics	14.7%	1463	15.9%	1704	16.2%	1873	17.4%	2114	17.2%	2157
Undeclared Major	4.4%	432	4.1%	443	3.5%	410	3.5%	426	2.7%	333
Totals		9929		10738		11559		12184		12529

* Figures include students pursuing a second Bachelor's degree are included in undergraduate head count.
* For the years 2008-2011, ERSS numbers for the Computer Science major included students in the Management Information Systems plan code.

Class Level	2012	2013	2014	2015	2016					
Undergraduate	100.0%	9928	100.0%	10733	100.0%	11555	99.9%	12177	100.0%	12524
Second BA	0.0%	1	0.0%	5	0.0%	4	0.1%	7	0.0%	5
Totals		9929		10738		11559		12184		12529

* Graduate figures include Undeclared Postbacc Students.

Age at Term	2012	2013	2014	2015	2016					
22 and under	64.6%	6416	66.6%	7155	67.4%	7787	68.1%	8302	68.4%	8566
23 to 25	18.8%	1863	18.3%	1967	18.6%	2146	18.0%	2197	17.2%	2157

California State University
SAN MARCOS

APPLICANT DEMOGRAPHIC REPORT DETAILED

Home : Report Repository : All Reports

Term: Year:

1 of 1 | Select a format | Export

	Transfer	448	2.0%	126	1.2%	76	1.8%	28.1%	17.0%	60.3%
White	Subtotal	1282	5.6%	597	5.8%	219	5.3%	46.6%	17.1%	36.7%
	First-Time Student	3732	16.3%	2345	22.8%	650	15.8%	62.8%	17.4%	27.7%
	Returning Student	51	0.2%	35	0.3%	12	0.3%	68.6%	23.5%	34.3%
	Transfer	83	0.4%	34	0.3%	3	0.1%	41.0%	3.6%	8.8%
	Transfer	2574	11.3%	823	8.0%	557	13.6%	32.0%	21.6%	67.7%
	Transitory Student	16	0.1%	16	0.2%	12	0.3%	100.0%	75.0%	75.0%
	Subtotal	6456	28.2%	3253	31.6%	1234	30.0%	50.4%	19.1%	37.9%
Total		22863	100%	10288	100%	4109	100%	45.0%	18.0%	39.9%

Fall 2015 Applicants by Racial / Ethnic Background

Racial / Ethnic Background	Count	Percentage
White	6456	28.2%
Hispanic/Latino	9996	43.7%
Asian	2324	9.7%
African American	894	3.7%
Other/Unknown	1282	5.4%

Fall 2015 Applicant Yield Diagram

Stage	Count
APPLIED	9996
ADMITTED	2324
ENROLLED	6456

DATA REQUEST PROCESS DEMO

- ▶ <https://www.csusm.edu/ipa/>
- ▶ Student Requests need a faculty or staff sponsor
- ▶ Off campus requests (dissertation data, non-MOU school districts, fishers, all need an on-campus sponsor
- ▶ Web App (free): asp.net with Oracle Database behind it. Web form for data in, processes and sends emails as appropriate and stores in database for later viewing

DATA REQUEST TRACKING

- ▶ After the request is submitted it is assigned a number and informs the requestor it has been received
- ▶ The request is then either denied or assigned to the proper DSG member who receives an email- one person per request!
- ▶ Requests are able to be examined, prioritized, and updated according to status (e.g., Work in Progress, Stakeholder Approval, Complete)
- ▶ Effects: fewer unusual requests (number of homeless students, student gamblers, course evaluations) if name is attached

DATA GOVERNANCE



- ▶ Convened by CSUSM President
- ▶ Ensures a formalized and systematic approach to data and information security and management
- ▶ Specifies organizational data related decision-making authority (Data Steward)
- ▶ Identifies and maintains data standards, policies and procedures (PS data entry, student groups, when and how data is updated)

DATA GOVERNANCE FUNCTIONS

- ▶ Establish priorities for reporting, dashboard development and analytics
 - ▶ Provide cross functional oversight and prioritization for Business Intelligence Projects, recommend new BI and analytics capabilities
 - ▶ Recommend operating policies and practices that focus on data standardization
 - ▶ Identify required information and related data; manage metadata documentation
 - ▶ Ensuring a common understanding and consistent interpretation of data; ensure data are uniquely and consistently defined
- 

DATA GOVERNANCE FUNCTIONS (CONT.)

- ▶ Develop policies and rules for data access levels, permissions and confidentiality
- ▶ Mediating escalated data issues
- ▶ Identify and assign Data Stewards. Provide guidance to ensure data are:
 - ▶ Accurate, complete, timely, relevant, and vetted by the proper Data Authority
 - ▶ Collected, maintained, used and disseminated in accordance with confidentiality and security policies
 - ▶ Meet the goals of promoting access to and use of data
 - ▶ Creating, maintaining and approving metadata definitions and data quality

INTERESTING DATA REQUEST ISSUES

- ▶ Outside Requests
- ▶ Campus Communications and Coordination
- ▶ Grant Support Issues: Initial Consultation Needed
- ▶ Vetting of Dashboards and Data Requests with DG structure
- ▶ Adding New Helpers

Strategic Planning



Organized and Systematic Workflow

The Office of Institutional Effectiveness

Strategic Plan
2019 – 2024



MISSION

The Office of Institutional Effectiveness provides high-quality data, analytical tools, strategic analysis, and partnership-based education and collaboration to foster a University culture of data-informed decision making.

VISION

Be the trusted source for data that drive University success and recognized as a leader in impactful higher-education research and insights.

WE WILL BE KNOWN FOR:

- Having high standards of data quality, including consistency and transparency in how data is collected and analyzed.
- Educating and empowering University constituents to access, analyze, and interpret data through user-friendly, self-service tools and ongoing education.
- Being on the leading edge of data delivery by employing automation, data visualization, predictive modeling and forecasting.
- Engaging University collaborators to become data experts and champions to support effective data governance.
- Facilitating meaningful, actionable research and insights.
- Supporting assessment of student learning outcomes, program review, and accreditation processes in an efficient and systematic manner.

www.calstatela.edu/ie
ie@calstatela.edu
323-343-2730

Priorities and Goals



Priority I: **Ensure data quality through collaboration**

Goal I:

Establish sustainable business practices for the IE data warehouse (e.g., training, technical processes, business processes).

Goal II:

Cultivate a collaborative and collegial IE culture.

Goal III:

Work with campus data partners to ensure data quality and create University-wide data governance infrastructure.



Priority II: **Empower campus constituents**

Goal I:

Establish more effective dialogue with constituents to promote understanding of IE offerings, resources, priorities, and opportunities for collaboration

Goal II:

Broaden and increase training offerings to enable constituent self-service and increase overall University data competence.

Goal III:

Broaden and increase collaboration efforts with University constituents.



Priority III: **Deliver actionable data and insights**

Goal I:

Ensure IE plays a leadership role in University data service by understanding and addressing University data needs.

Goal II:

Conduct in-depth, quality analysis of data in order to produce impactful research.

Goal III:

Expand data visualization capabilities.

Goal IV:

Establish consistent processes to improve University-wide survey implementation and analyses.

Goal V:

Deliver efficient and systematic support of University-wide assessment, program review, and accreditation.

Metrics



Assets

- ▶ Strategic Planning initiative identified three priorities
- ▶ Prior interest in Tracking Systems
- ▶ Existing self-service data dashboards
- ▶ Existing licenses for an online task management tool.

Challenges

- ▶ Changes to Team Structure
 - ▶ New Team Members
- ▶ Unnecessarily duplicated communication
- ▶ Push for more accountability
- ▶ Data Governance not yet established
- ▶ Different ways of getting requests

INSTITUTIONAL EFFECTIVENESS AT CAL STATE LA



LA'S PROCESS

1. Gather information
2. Write a plan
3. Set up the technology
4. Train people to use it



GOALS FOR A TRACKING SYSTEM

Goal

Be able to report on all completed, current, and upcoming requests.

Notify the team of new requests.

Allow us to study how our efforts align with Strategic Plan Priorities.

Enable clients to enter a request themselves.

Be simple for all parties.

Allow transfer of tasks from one staff member to another.

Previous or current work must be quickly and painlessly findable.

Be able to repeat methodology of previous work.

Everything should be made a "deliverable".



PRINCIPLES

1. Track as little as possible, but enough to satisfy ourselves, our clients, and our sponsors.
2. Avoid tracking data that are used infrequently but that could be calculated in the future.
3. Each request gets an ID. All files, directories and correspondence should use that ID.
4. Track the requests and tasks, but not how they get done.



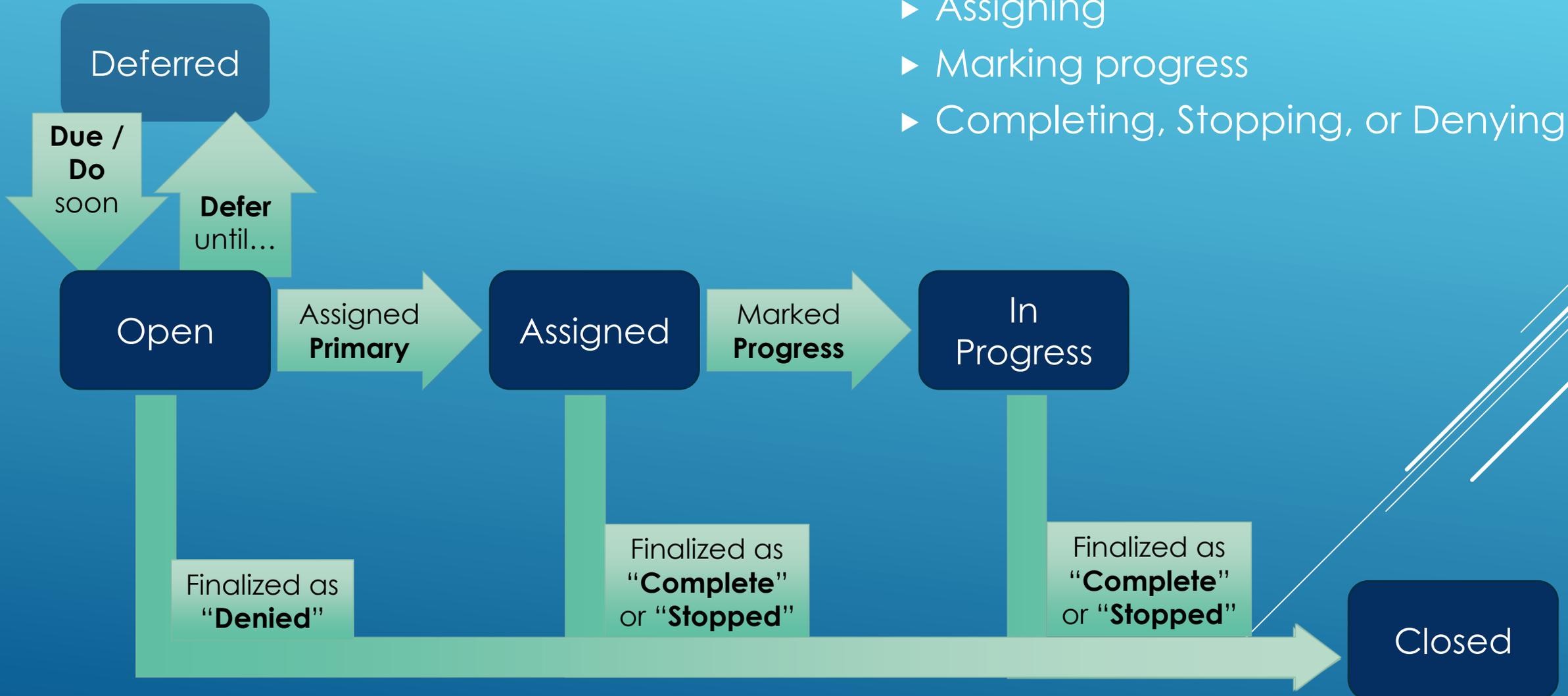
LA'S PROCESS

1. Gather information
2. Write a plan
3. Set up the technology
4. Train people to use it

LIFESPAN OF A TASK

Actions include:

- ▶ Assigning
- ▶ Marking progress
- ▶ Completing, Stopping, or Denying



Request Form

To help us fulfill your request, please complete this form as completely as possible.

Please allow 1-2 business days for a follow-up call or email from the IE office. Keep in mind that the amount of time needed to complete data requests depends on the nature of the request and staff availability. As such, data requests should be made at least two weeks in advance whenever possible.

Requestor Name *

Requestor Email *

Contact Phone

Requestor CC

You may add another email to that should be CC'd on emails. They will be notified of this form submission.

Previous Work

Has this request been previously handled by IE? If so, please provide the most recent TID-# or IE staff name who worked on it.

Subject *

Provide a brief description of your request as if it were the subject of an email message. E.g., "Physics program planning"

Request Description *

What is your research question?

Please be specific and include as much detail as possible. Make sure to include the time frame in which you are interested (e.g., this academic year, the last five years, the current term), the population of interest (e.g., Latino students, 16-17 graduates, students who have taken a specific course), important qualifiers (e.g., successful completers vs. any completers), and definitions of terminology or wording where necessary. E.g. "What percentage of students who successfully completed CS11M in Fall 2015 went on to complete CS19 at any time afterwards?"

Date Need By *

Allow 10 business days for most requests.

Urgent requests

Click the flag below for URGENT items that need immediate attention.

Expected Frequency

How often do you expect to make this request? (Note that a new request will have to be submitted each time.)

One-time only ▾

Attachment

If you have a spreadsheet or document that would aid us in fulfilling your request please attach it here.

Please do NOT send personally identifiable or sensitive information. This is NOT a FERPA-compliant form.

file name

Upload

Send me a copy of my responses

Submit



WEB FORMS FOR INTAKE



CAL STATE LA												
☆ R2 - Tasks by Person												
Task ID	Status	Added Today Indicator	Primary Assignee	Other Assi...	Defer Until	Date Need By	Week Due Indicator	U...	Ext... Re... Ind...	Progress	Subject	Task Type
18-0368	In Progress		Kalin Agnew				TBD			<div style="width: 20%;"></div>	DER vs ERSS FTES comparison and consistency	Recurring University Data Report
18-0251	In Progress		Kalin Agnew				TBD		REQ	<div style="width: 20%;"></div>	Survey Data Consolidation Project	Internal Survey
18-0117	In Progress		Kalin Agnew		08/02/19		TBD			<div style="width: 20%;"></div>	Clarify Tracker column names and definitions and meanings	Internal Organizational
18-0081	In Progress		Su Seon Yang	Ad Hoc	11/01/19	06/28/19	Overdue			<div style="width: 20%;"></div>	Credential Data Mapping in ERSS - SQR updates	ERS
18-0129	In Progress		Su Seon Yang	Ad Hoc	11/01/19	08/05/19	Overdue			<div style="width: 20%;"></div>	Credential Data (in ERSS) Business Processes f/u w/REG & CCOE	ERS
19-0028	In Progress		Su Seon Yang	Ad Hoc		10/30/19	Next week			<div style="width: 20%;"></div>	ERST SQR investigation	ERS
19-0003	In Progress		Su Seon Yang	Yat Kai		10/31/19	Next week			<div style="width: 20%;"></div>	Enrollment Predictive Modeling (New students)	Ad-hoc
18-0133	In Progress		Su Seon Yang	Yat Kai		10/31/19	Next week			<div style="width: 20%;"></div>	Enrollment Predictive Modeling (Continuing students)	Ad-hoc
19-0067	Assigned		Su Seon Yang			11/04/19	After next wee			<div style="width: 20%;"></div>	Create Queries in GET and schedule jobs for census-frozen data creation	RDS
19-0022	Assigned		Su Seon Yang	Ad Hoc		11/29/19	After next wee			<div style="width: 20%;"></div>	Student Standing Code Investigation	ERS
19-0077	In Progress		Su Seon Yang			11/29/19	After next wee		REQ	<div style="width: 20%;"></div>	All Plans for the enrolled students in ERSS	RDS
19-0112	Assigned		Su Seon Yang			11/29/19	After next wee			<div style="width: 20%;"></div>	Fix null enrollment status and student level in historical ERSA	RDS
19-0118	Assigned		Su Seon Yang			11/29/19	After next wee			<div style="width: 20%;"></div>	Search/Request Access to Audit Tables for PS tables we need to check	ERS
19-0072	In Progress		Su Seon Yang	Ad Hoc			TBD			<div style="width: 20%;"></div>	Checking on SERSS self-support status for an enrollment	ERS
19-0114	Closed		Su Seon Yang			10/25/19			REQ	<div style="width: 20%;"></div>	Summer 19 Actual FTES for College	Ad-hoc
19-0115	Closed		Su Seon Yang			10/25/19				<div style="width: 20%;"></div>	Investigate duplicates in ERSD	ERS
19-0019	In Progress		Mushee Kandi			10/18/19	Overdue			<div style="width: 20%;"></div>	Customize NSSE	Internal Survey
19-0104	Assigned		Mushee Kandi			10/25/19	This week			<div style="width: 20%;"></div>	Update retention data for Amy	Ad-hoc

OVERVIEW OF ALL CURRENT WORK

Search... CAL STATE L.A.

File R3 - Kalin

Grid View

	Sh... N...	A... To... In...	Task ID	Primary	Ex... Re... In...	Task Type	Progress	Defer Until	Date Need By	Week Due Indi...	URG...	Finalized Date	Finalized Action	Work Folders and Locations	Oth Ass
1	S1-J		tid-18	Early Start Data needs SSN from CIN/EMPLID	REQ	Ad-hoc data	<div style="width: 20%;"><div></div></div>		03/15/19	This w	■				
2	S1-J	+	tid-27	Add more granular IE Strategic Plan evaluation columns to task tracker		Internal Organizational	<div style="width: 10%;"><div></div></div>	03/18/19	03/27/19	After n	□				
3	S1-J	+	tid-29	Notify assignees if a task is finalized for them by someone else		Internal Organizational	<div style="width: 10%;"><div></div></div>		03/27/19	After n	□				

	Sh... N...	Primary Assignee	A... To... In...	Task ID	Primary	Ex... Re... In...	Task Type	Progress	Defer Until	Date Need By	Week Due Indi...	URG...	Finalized Date	Finalized Action	Work Folders and Locations	Other Assign...
	S1-J	 K...@calstate.edu		tid-18	Early Start Data needs SSN from CIN/EMPLID	REQ	Ad-hoc data	<div style="width: 20%;"><div></div></div>		03/15/19	This w	■				
	S1-J	 K...@calstate.edu	+	tid-35	Create an IE Staff Smartsheet group that does not include Amy		Internal Organizational	<div style="width: 10%;"><div></div></div>		03/20/19	Next w	□				
	S1-J	 K...@calstate.edu	+	tid-31	Edit and Publish Public-facing Request Form		Internal Organizational	<div style="width: 10%;"><div></div></div>		03/21/19	Next w	□				
	S1-J	 K...@calstate.edu		tid-27	Add more granular IE Strategic Plan evaluation columns to task tracker		Internal Organizational	<div style="width: 10%;"><div></div></div>	03/18/19	03/27/19	After n	□				
	S1-J	 K...@calstate.edu		tid-29	Notify assignees if a task is finalized for them by someone else		Internal Organizational	<div style="width: 10%;"><div></div></div>		03/27/19	After n	□				
	S1-J	 K...@calstate.edu	+	tid-36	Edit email sent to people who submit public request		Internal Organizational	<div style="width: 10%;"><div></div></div>		03/30/19	After n	□				
	S1-J	 K...@calstate.edu		tid-30	Testing again for distant task		Internal Organizational	<div style="width: 10%;"><div></div></div>	03/20/19	04/05/19	After n	□				

INDIVIDUAL WORK LIST



REVISITING OUR GOALS

Goal	Result
Be able to report on all completed, current, and upcoming requests.	Yes
Notify the team of new requests.	Yes
Allow us to study how our efforts align with Strategic Plan Priorities.	Yes
Enable clients to enter a request themselves.	Yes
Be simple for all parties.	Maybe
Allow transfer of tasks from one staff member to another.	Untested
Previous or current work must be quickly and painlessly findable.	Yes
Be able to repeat methodology of previous work.	No
Everything should be made a "deliverable".	No



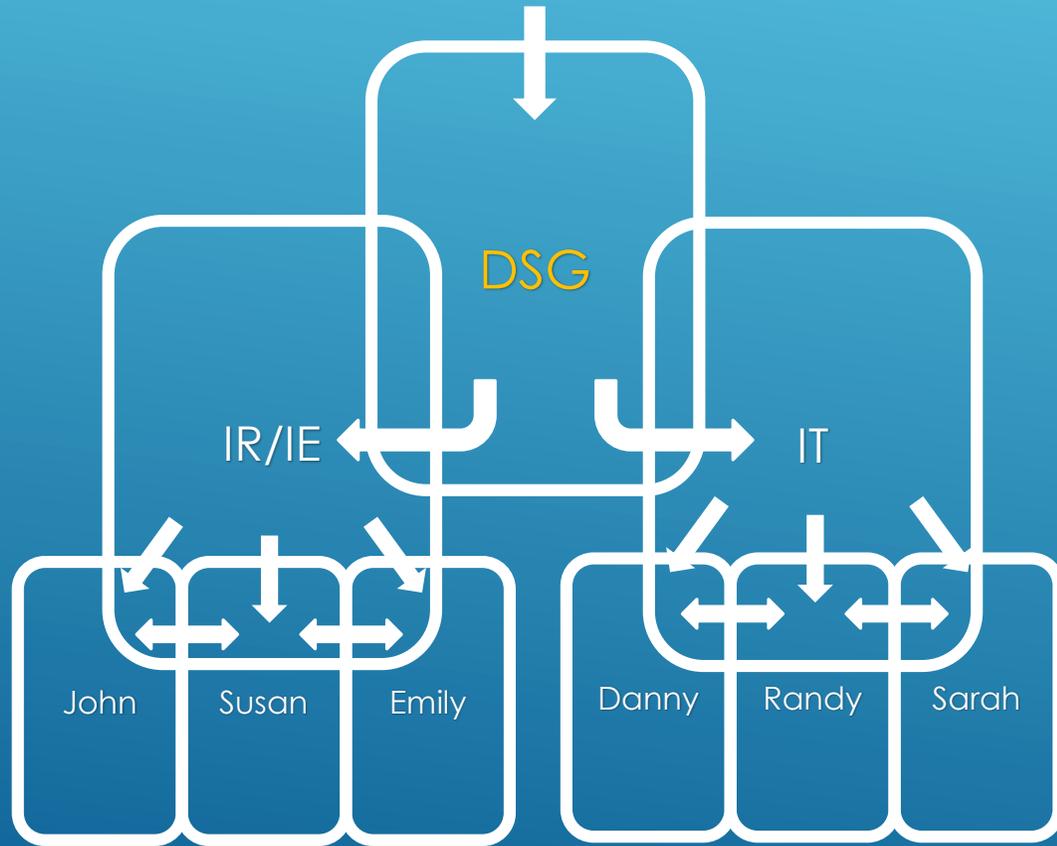
LESSONS

1. Use what is available.
2. Get everyone on board with using the same tools.
3. Commit to it by enforcing rules for all clients.
4. Train to establish skills and culture.

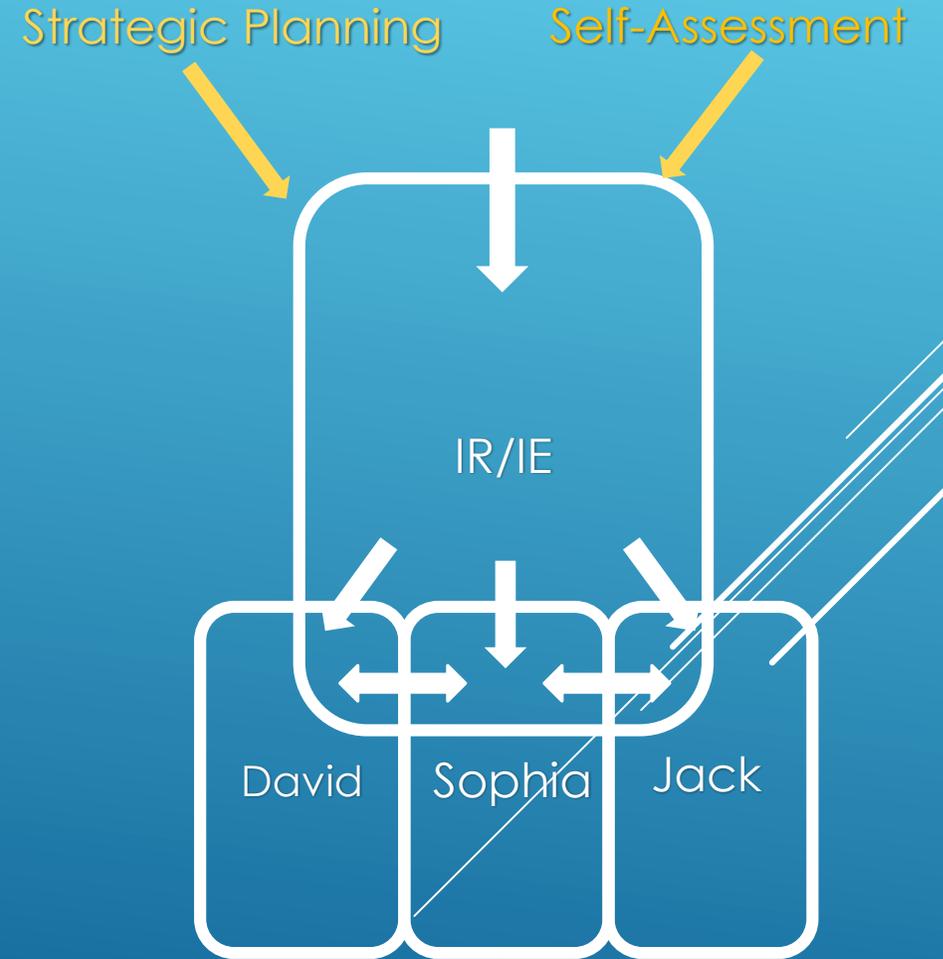
CONTRASTING SYSTEMS



San Marcos



Los Angeles





REMEMBER:
WITHOUT A DATA
REQUEST PROCESS
GETTING DATA IS
LIKE PULLING TEETH!

Q&A

Jeffrey Marks

Director, Institutional Planning & Analysis

jmarks@csusm.edu

Kalin Agrawal

Senior Research Analyst, CSU LA Institutional Effectiveness

kagrawa@calstatela.edu

Sunny Moon

AVP, CSU LA Institutional Effectiveness

sunny.moon@calstatela.edu