

2019-2020

Kern Community College District

District Office Administrative Unit Review

Institutional Research & Reporting

Submitted by:

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2019-20 District Office Administrative Unit Review for: Institutional Research & Reporting

Executive Summary

a) In one paragraph or with bullet points, summarize the key points learned in this evaluation. [list the highlights of the document]

In 2018-19, the Office of Institutional Research & Reporting has accomplished much towards its goal of improving the quality of the data that the district collects, disseminates, and utilizes data. It has done so by

- Working collaboratively with IT and the colleges to improve the MIS data collection process. By identifying issues with the intake process and identifying ways to improve the quality of the data, KCCD can be more confident in the data that they see both from KCCD and the state Chancellor's office. The work on MIS has resulted in corrections to previous MIS data submissions that will result in higher funding allocations under the new Student Centered Funding Formula.
- Providing in depth analysis of FTES and student success data by creating reports and dashboards that help District and College staff to better understand the apportionment process
- Fulfilling over 70 different ad hoc data requests and data research projects for District and College Staff
- Creating online data dashboards that allow District and College staff greater accessibility to institutional data to use in their day to day work
- Creating Data presentations and dashboard for the KCCD website that help to better tell KCCDs story to the public and show the difference that KCCD is making in the community

For the 2019-20 academic year, the Office of Institutional Research will need to build on the progress made by concentrating on achieving the following

- Publishing data and reports more quickly so that college staff can react to data needs quickly and effectively. This will be done by continuing work on the data warehouse which will allow for a standardized data source for all college and district staff to use.
- Continue to improve data dashboards/reports that will allow decision makers to make better decisions
- Coordinate research projects between the colleges that will inform how the district allocates resources aimed at improving student success
- Facilitate the use of data by the district and colleges by presenting more analysis and encouraging discussion of data by district and college staff

Future Directions of the Unit

a) Provide a brief abstract of synopsis of your unit's current circumstances and future needs. Please include any college priorities that affect your unit, and the connection to college planning and priorities.

A year ago, the office of Institutional Research was in transition. The director had been in the role for less than three months and only two of the three analyst positions were filled. Today, the office is moving out of that transition phase. With the Director having a year of experience to assess the data and research infrastructure and adding two more analysts, the office has a clearer vision of its role in facilitating student success at KCCD colleges. The office is continuing work on the construction of an Institutional Data Warehouse that will standardize data reporting and increase the accuracy of the data that district reports to external bodies. The construction of the Data Warehouse has hit some snags and has taken a bit longer than anticipated, but with testing of the data warehouse commencing at the end of October, the Office has been preparing for the Data Warehouse to go live by shoring up the capacity of District and College IR staff to leverage the data warehouse into useful data and research products. District staff has reached a baseline level of proficiency with querying and dashboard/report creation with the SQL, SAS, and Tableau software platforms. The office has been creating these data products from the existing data warehouse, ODS, in a manner that will make the transition to the new data warehouse easier.

The two biggest needs for the IR office both involve human resources. First the district and college IR staffs need to continue to develop their skills in the new data reporting and analysis platforms. Additionally, the analysts, who up until this point have done mostly data reporting, must acquire the skills and abilities to turn the data reports into substantive analysis that will provide decision makers what they need to make those decisions. The analysts have generally reached a level of baseline proficiency, but improvement in their skills will result in quicker and more in depth data and analysis. From the reporting and data management side, the Director and the College Institutional Researchers can continue to provide ongoing professional development and training. However, from the analysis side, it makes sense to utilize external resources to train the analysts on the most recent statistical techniques that are considered best practices in the field. For this year, the two research goals for the district will be

- 1) Facilitating the creation of a predictive model of student success for each of the colleges. This statistical model will provide colleges with a better understanding of the baseline factors that influence student success.
- 2) Training District and College IR staff in Propensity Score Matching analysis. This more recent developed statistical methodology is viewed in the field as an effective tool for measuring the results of interventions on populations that don't randomly select into a treatment group.

Training in these two areas will require some resources to bring in external experts to train the analysts on how to set these up in a higher ed context.

The second need is to prepare for the maintenance of the data warehouse. The grant that is funding the construction of the data warehouse provides funding for an IT staff member that is assisting with the construction and maintenance of the data warehouse. This grant currently has about a year and half of funding and we will need to develop plans to support the data warehouse after the grant funding expires. Having an IR staff dedicated to the data warehouse has worked very well this year. In fact, finally bringing on that IT staff member has accelerated the work being done on the data warehouse greatly as it has been very useful to have someone on site who can both ask the right questions of IR and answer questions on how to best create the data warehouse. Ensuring that the data warehouse is supported from the IT side is crucial for IR to leverage the data warehouse into tangible results for the district.

Section One: Unit Overview

a) What is the purpose of the unit and what populations (internal and external) are served by the unit? [why does the unit exist and how does the unit support the mission and vision of the Kern Community College District; who benefits directly from the services provided by the unit]

The Office of Institutional Research & Reporting (IRR) is responsible for the collection, organization, analysis, and dissemination of official data for the Kern Community College District. This data includes but is not limited to student data, financial aid data, faculty workload data, budget and finance data, human resources data, course data, and student success data. In doing so, it contributes to establishing a culture of data driven decision making at all levels of the district and each of the colleges. The work that IRR comes in the form of data reports, research studies, and data extraction services for the District and College staff, and is used for program and policy evaluation, short and long term planning, self-improvement efforts, and mandated reporting to state, federal, and accreditation agencies. IRR provides services for virtually all units at the district office, and at the colleges, all students, and several external groups. Below is a high level summary of these services

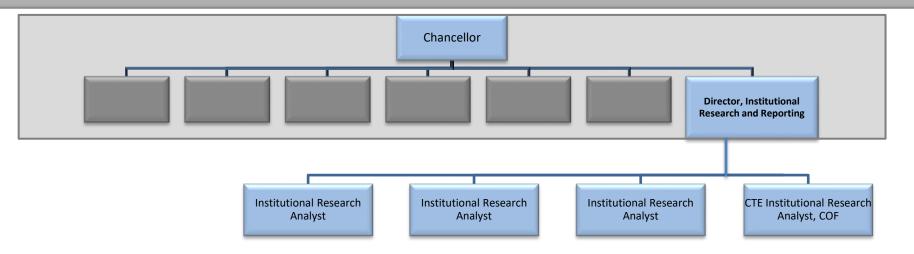
District Office	Completes federally mandated IPEDs survey and Gainful Employment reporting for the district, works with IT to submit MIS data to Chancellor's office, facilitate transition to new student centered funding formula, provides projections about enrollment and FTE, direct long and short term strategic planning
District Office Academic Services	Provide data on student enrollment and student success, community demographics and economic trends, program level data for CTE programs and Adult Education, support grant funding with data support, manage district wide surveys
District Office Business Services	Calculates FTES enrollment for allocation and budgeting process, provides data for state budget allocation process (320 Report) and assists with audit process
District Office Human Resources	Assists with submission of state mandated employment reporting, provides consultation in analysing staffing data
District Office Information Systems	Facilitate efforts between colleges and IT to increase data integrity in MIS reporting
Colleges	Provide colleges with data and reports on enrollment, financial aid, student success, and faculty workload. Provide College IR offices with data structure and methods for doing college specific research projects
Kern Community College District	
Service Area Constituents	Provide relevant data to public on enrollment and student success at each of the colleges on the KCCD website

Section One: Unit Overviewa Section One: Unit Overview (continued)

b) Describe how the unit supports the colleges in achieving their mission and their efforts to improve student learning and achievement.

The Office of Institutional Research & Reporting oversees the collection of institutional data, including all of the student success metrics as defined by the Chancellor's office and the colleges. Institutional data includes enrollment data, student progress and success data, and faculty workload data. Working with the college IR departments, colleges then use this data to assess and improve their services to students with the goal of improving the college's performance in these metrics. The District Office of IR coordinates district wide research projects such as the climate survey, the At the Gate Transfer Study, and Predictive Model of Success. Additionally, the Office of Institutional Research also provides the data that drives much of the funding for the district and the colleges, including 320 Apportionment Reporting, Student Centered Funding Formula Data, SSSP Grant data support, Title III and IV Federal grants.

c) How is the unit structured within the district? Modify the org chart template below to illustrate the unit's organization.



d) For the positions included in the unit's organizational chart, please provide a brief description of what primary processes or areas each position is responsible for as it relates to the work of the unit, district and colleges.

Position	Primary Functions/Processes	Supplemental Functions/Processes	Additional notes
Director	Supervise staff	Train and Develop Staff	
	Provide Strategic Direction for	Oversee MIS data collection	
	Institutional research	process	
	Coordinate District Wide IR		
	Activities		
	Ensure all reporting and		
	compliance are completed in a		
	timely and accurate manner		
Analyst	320 Report	Ad Hoc Reporting and Research	
	IPEDS Reporting/Dashboards		
	Admissions Cycle Reporting		
Analyst	Student Success	Ad Hoc Reporting and Research	
	Reporting/Dashboards		
	MIS Validation		
	Academic Program		
	Review/Dashboard		
	New Report Building		
Analyst	District and Campus	Ad Hoc Reporting and Research	
	Surveys/Dashboard		
	MIS Validation		
	HR Reporting		
	Qualitative Research		
CTE Analyst	CTE Program Reporting	Ad Hoc Reporting and Research	Funded by Strong Workforce
	Adult Ed Program Reporting		
	Special Admit Program Reporting		

Section Two: Administrative Unit Outcomes (AUOs)

a) List all the AUOs for the unit. AUOs describe what a customer or end-user will understand, experience or obtain as a result of the service the unit provides to the colleges and other internal stakeholders. Describe the method of assessment and the criteria used to determine success in the service provided. The assessment method should include some way of measuring college, internal or external stakeholders' demand or need for and satisfaction with the service (add additional rows as necessary.)

Administrative Unit Outcomes (AUOs)	Strategic Plan Alignment	Review Period	Method of Assessment	Criteria for determining success in service provided
Provide timely and relevant enrollment management information	Goal 3: Ensure Student Access - Optimize Student Enrollment	2018-2019	Personnel who receive the weekly Enrollment Update reporting will be surveyed to assess their level of usage of and satisfaction with the reporting as well as to gather feedback for improvements.	85% of all respondents should be satisfied with the reporting.
Ensure all data reported internally and externally is accurate and timely	Goal 5 – Strengthen Organizational Effectiveness - Meet and exceed internal and external standards and requirements	2018-2019	the data heing renorted to internal and external	All data area heads are satisfied with the accuracy of data.
3. Create Student Success reports and dashboards to support short and long term strategic planning of District and Colleges	Goal 1 - Maximize Student Success - All goals	2018-2019	Measure usage of dashboards via website metrics	College and District officials access dashboards and use data in decision making
4. Create public facing data dashboards and documents	Goal 4: Enhance Community Connections - Reflect the communities we serve	2018-2019	lusage of nublic facing dashboards via web	Data about KCCD and its colleges available to public
5. Create and maintain infrastructure for college IR offices	Goal 5 – Strengthen Organizational effectiveness - Increase trust and create a collaborative culture		Measure the usage of data warehouse and District Office reports and data sets by college IR offices	College IR offices use/build on district office reports and data for college specific IR projects
6. Communicate effectively and accurately the mandated state and/or federal reporting and compliance activities to colleges, district and stakeholders.	Goal 5 – Strengthen Organizational effectiveness - Provide effective professional development, Meet and exceed internal and external standards and requirements, Increase trust and create a collaborative culture	2018-2019	agencies, and that District office and College Staff	Colleges and Districts stay in compliance with federal, state, and other agencies, District Staff and College Staff are aware of their role in the collection of data for the compliance process

enhance knowledge and understanding of	Goal 5 – Strengthen Organizational effectiveness - Provide effective professional development	2018-2019	Itachnology in providing carvicas to Histrict (littica	Analysts apply new techniques and knowledge in their work.
College's pursue by providing the data	Goal 5 – Strengthen Organizational effectiveness - Increase trust and create a collaborative culture	2018-2019	Count number of grants and new initiatives that IR provides data support for	All grant applications use institutional data in making their case for funding
institutional improvement research	Goal 5 - Strengthen Organizational Effectiveness - Meet and exceed internal and external standards and requirements		land reported on Count number of research	Research findings used in short term and long term decision making process

b) Summarize the results from any AUOs evaluated during the past year, including feedback on services rendered during the past year. Provide details regarding findings and plans for change or improvement of service, if needed.

Overall, the Office of Institutional Research and Reporting was able to achieve many of its AUOs. All required reporting was done in a timely manner and done so in a way that allowed the District and College IR offices to more closely delve into the data to create many insightful and useful research studies. More progress was made towards building a data infrastructure as the district office and college office IR staff received more training in querying and building data dashboards and visualizations as a way to advance their research agenda. These dashboards have been received well both at the district and at the individual colleges. The presidents and vice presidents have all given feedback that they feel these kinds of data products are helpful and have filled a gap in the data distribution system that existed at KCCD.

Data collection processes have also been refined and improved. Both the 320 processes and the MIS processes have undergone significant improvement with IR and IT working collaboratively to find a process that improves efficiency and accuracy of data. Much education has been done for Vice Presidents, Deans, and Directors at the colleges around the data process, which has also helped improve the data collection and auditing process as well. While there is still much room for improvement, data integrity of institutional data has improved greatly from previous years.

While the full suite of public and internal dashboards are not yet complete, the first few have been received well by the KCCD community and we hope to have more up by the end of the calendar year.

One area that needs improvement is the completion of original research projects by the district office. The colleges have been able to increase their productivity in this area, completing many research projects, but the district office has not been able to coordinate anything across the district in 2018-19. We hope to remedy this in the coming year.

Section Three: Key Performance Indicators (KPIs)

a) List the KPIs for the unit along with the relevant outcomes for the last 3-5 years. KPI data tracks process efficiency and demand for services. Examples of KPIs include a count of customers served, a count of services performed, the average time to complete a service, etc. They are closely related to the AUOs and should reflect the unit's core function or purpose.

Key Performance Indicators (KPIs)	2018-19	Comments
External facing dashboards completed	3	
Website hits for external facing dashboards	5808	All Dashboards Released in August or
Internal Data dashboards completed	16	
Website hits for internal dashboards	8464	
IR reports published	3	
Number of times IR reports downloaded/viewed from website	-	Need to figure out a way to measure
Ad Hoc Data Requests Fulfilled	74	
Research Studies Completed	0	
Grants applications supported	6	
All Federal and State reporting completed accurately	Completed	

b) What unexpected changes or challenges did your unit encounter this cycle? How does your trend data impact your decision-making process for your unit?

Progress towards the completion of the data warehouse has gone slower than expected. We were hoping to have it up and running by the beginning of the 2019-20 academic year, but right now, the go live date has been pushed back to the beginning of the 2020 Calendar year. This has impeded dashboard development in the staff is having to balance putting the work into building dashboards and reports that KCCD staff can use that they may have to rebuild once the data warehouse is completed.

The ODS warehouse also experienced a lot of interruption causing the district and college staffs to delay work getting done. While the data warehouse will relieve some of these issues, it is important to improve the ODS warehouse as in the future it will still house the data that the district will use to conduct day to day business.

Also having the budgets come in at the same level as the year before has hampered fully implementing tableau in a way that would provide easier access to users to the dashboard.

Section Four: Progress on Unit Goals

a) List the unit's current goals. For each goal, discuss progress and changes. Provide an action plan for each goal that gives the steps to completing the goal and the timeline. If unit goal is for service to a group outside of the unit, indicate which group in the last column. (Add additional rows as necessary.)

Unit Goal	Which institutional goals from the KCCD Strategic Plan will be advanced upon completion of this goal?	Progress on goal achievement (choose one)	Status Update — Action Plan	Colleges requesting accomplishment of this goal or colleges' planning indicating this need. (Include supporting documentation.)	Other group (besides ones of the colleges) requesting accomplishment of this goal. (Include supporting documentation.)
1. Reorganize and streamline ODS database into a more efficient data source consistent with modern IR practices	Goals 5, 3, 1	◯ Ongoing: 10/11/19	IT is working on moving the ODS to its new environment ODI. IT and IR have been preparing by meeting regularly to discuss how the new environment will be organized and how to consolidate the tables into a more efficient manner	,	,
2. Create efficient and effective process for submitting MIS data for the district	Goals 5, 3, 1	Ongoing: 10/11/19 (Date)	IR and IT are not regularly meeting with A&R directors, Financial Aid Directors, and HR directors to improve data collection to reduce time and effort required to submit MIS data. Several dashboards have been set up that allow the directors to diagnose their data before it is submitted well before the due date.		
Recreate public facing data on website and increase amount of data available to the general public about KCCD and its colleges	Goals 5,4,3	Ongoing: 10/11/19 (Date)	EnrollIment, Degree, and Program Review data available on the KCCD IR website. More specific student success dashboards will be added in next few months		

Have District Wide Institutional Research retreat to develop Updated Mission, Goals, Values for district and college offices and refine and formalize relationships and duties of District office in relation to college offices, as well as	Goal 5	Ongoing: 10/11/19 (Date)	Hoping to have district wide retreat in January	
assure that goals align with District and college goals				
Update report and data delivery interface for internal data	Goal 5,1		Each School/District office has been set up with a login for their own dashboards. Most IR data distribution and reporting happening using Tableau Platform	
Shift focus of IR operations from reporting, which will be automated to completing management and institutional improvement studies	Goal 5,1,3	Ongoing: 10/11/19 (Date)	Unfortunately, most effort still goes to reporting and will probably continue to do so until the data warehouse is completed. However, two research projects have begun, one on transfer students, and the climate survey.	
Facilitate use of data in student success efforts and long range planning	Goal 5,4	Revised: 10/11/19 (Date)	We have done several presentations and trainings for KCCD staff, but have not reached out to faculty. We plan on conducting more training for non-IR staff in November and December. We are also considering establishing an monthly IR colloquium where IR will present monthly on various data that has been collected and analyzed.	

a) List new or revised goals, if applicable. (Add additional rows as necessary.)

Replacement Goal	Which institutional goals from the KCCD Strategic Plan will be advanced upon completion of this goal?	Status Update — Action Plan	Colleges requesting accomplishment of this goal or colleges' planning indicating this need. (Include supporting documentation.)	Other group (besides ones of the colleges) requesting accomplishment of this goal. (Include supporting documentation.)
Create Intern/Student Worker position to assist with data entry and management aspects of IR functions allowing Analysts more time to do research	Goal 5	Contact CSUB MEd program and discuss adding KCCD IR as a site for program candidates to get experience and training oat KCCD. Discuss with HR how to set up position.		

Section Six: Current Unit Resources

a) List the unit's current resource levels by outlining existing staff, listing (major) technology/equipment the unit uses, describing the space the unit occupies, and the unit's current budget.

Resources			Current Level	
Staffing (list current staffing levels)	• 1.0 FTE C • 3.0 FTE R	Director Lesearch Analyst	• 1.00 FTE COF Analyst (Funded by strong workforce)	
Technology / Equipment	• 5 Lapto	op computers p computers for Director's Office	 Copier/Scanner in Analysts Office One Television for presentation/group work in Director's office and in Analysts Office 	 12 creator licenses for tableau data visualization software 2 SPSS Statistical software license 5 SAS Statistical software license
Space / Facilities	for four po • 1 office su	eople	kstation furniture, office storage cabine rkspaces, including one for an associate	
Budget (Unrestricted) Tot		\$583,502.07	Notes (if	anv)
1000 (Academic Salaries)		\$0.00		, ₁
2000 (Classified Salaries)		\$344,821.21		
3000 (Employee Benefits)	178,346.71		
4000 (Supplies & Materia	als)	\$1,250		
5000 (Operating Expense Services)	s and	\$56,834	Includes \$26,000 carryover of salary sa	vings from previous year
6000 (Capital Outlay)		\$2,250	Computer Equipment	
7000 (Other Outgo)		\$1,750	Help BC IR pay for GIS software	
Budget (Restricted) Total		\$0.00		
Budget (Contract/Commu Total	nity Ed)	\$0.00		

Section Seven: Resource Request Analysis

Discuss the impact of new resources your unit is requesting for next year's cycle that are in addition to what your unit currently has in this cycle. Indicate the expected cost along with the rationale. If a college is not requesting the new resource, leave the "College(s) requesting" column blank. Rank the proposals in order of their importance to the unit ("1" is most important; "5" is least important)

Resource Category	Resource Requested (Include Cost)	Discuss how the new resource will impact your unit's effectiveness in providing service to the colleges or other groups and what college planning reflects or suggests this need.	College(s) requesting this new resource to your unit. (Leave blank if no college requests the new resource.)	Rank
Positions: Intern/Student Worker \$0-\$4500 IT Data Warehouse Administrator — 1 FTE for IT	1: Classified Staff 2: Administrator	Much time and effort is spent on data entry and cleanup. While essential to reporting, this is something that could be handled with more administrative staff. As described in the replacement goal, an Internship might be a way to provide this cost effectively. This could possibly be an unpaid internship, but paying a reasonable internship stipend will yield better candidates. Alternatively, a student worker could be used. Funding for the current IT staff dedicated to the development and maintenance of the data		1 - IT data Warehouse administrator 3 - additional administrative support

		warehouse is currently provided by grant that has 1-2 years left on it. After that, it will be essential that a permanent position pick up the work of the COF position. This is actually a request for the IT department to get an FTE to hire someone dedicated to maintaining the data warehouse, which will be needed once the contract with Phytorian expires.		
Professional Development: Describe briefly, the effectiveness of the professional development your unit will be engaged in (either providing or attending) during the next cycle	☐ 1: Provide Professional Development ☐ 2: Attend Professional Development			
Facilities: If your unit receives a building remodel or renovation, additional furniture or beyond routine maintenance, explain how this request or requests will impact your unit's service to the colleges.	1: Space Allocation 2: Renovation 3: Furniture 4: Other 5: Beyond Routine Maintenance			
Technology: \$14,000 to fund the purchase of additional Tableau viewer licenses that will allow staff single sign on ability with their KCCD login.	☐ 1: Replacement Technology ☐ 2: New Technology ☐ 3: Software ☐ 4: Other	Our current set of licenses allows college staff to login but the data distribution system will work more effectively and efficiently if individuals can login with their KCCD login. Doing this will also increase the security of the dashboards and the data. Futhermore, should KCCD choose to go to administering our own Tableau server, this will provide IT with a training period to familiarize themselves with	All Colleges	2

	how to administer this particular	
	software membership system.	

Resource Category	Resource Requested (Include Cost)	Discuss how the will impact your effectiveness in partice to the col groups and what planning reflects this need.	unit's providing leges or other college	College(s) requesting this new resource to your unit. (Leave blank if no college requests the new resource.)	Rank
Other Equipment: \$4000 for new desktops for the Director and one analyst	☐ 1: Replacement ☐ 2: New ☐ 3: Other	One of the analysts' machine is the oldest in the district (Over 6 years old) and runs much more slowly than the other analyst's machine. The director's machine is 4 years old and is also due for replacement as well.			4
Total cost of resource needs over and above current budget allocation: \$18000-\$22000					

Section Eight: Conclusions

Present any conclusions and findings about the unit and its connection to the work of the colleges. (ACCJC Std IV.D.2, IV.D.5, IV.D.7):

The Office of Institutional Research & Reporting has made many strides in modernizing the way that the district and colleges collect and use data. In addition to leading the efforts to standardize the data that all of the colleges use, KCCD IR has made the data accessible in a way that facilitates the use of data to make decisions on policies and programs that will ultimately benefit students. The past few years have seen seismic shifts in the way that the data is used, both locally and at the state level. And it is unlikely that the shifts will cease in the coming years with the uncertainty surrounding the economy and the state funding formula. The work of the District Office of Institutional Research & Reporting has set KCCD on a course to be able to respond quickly to these shifts while simultaneously help the colleges to improve the way that they serve students.

Routing and Review

Submitter's Name:	Your Name
Title:	<u>Title</u>
Submitter's Signature:	
Date Submitted:	
Submitter's Immediate S	supervisor:
Date of Review:	
Chancellor's Signature:	
Date of Review:	
Date of Presentation to A	Administrative/Consultation Council: