

2022-2024

Kern Community College District

District Office Administrative Unit Review

Institutional Research & Reporting

Submitted by:

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Reporting

2021-2022 District Office Administrative Unit Review for: Institutional Research and Reporting 2022-24

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 2020-21, the Office of Institutional Research & Reporting has continues to improve the quality of the data that the district collects and reports, and analyzes for self improvement. It has done so by

- Improving our understanding of how data specifically data related to FTE generation and the business practices that affect what we report to the State for apportionment.
- Improving our understanding of how Financial Aid data, particularly how Pell Grants and CCPG Grants, two of the main drivers of the student centered funding formula flows from the student to the colleges and into our data systems.
- Working closely with college staff and IT to ensure that student data especially data related to the Student Centered Funding Formula is collected accurately and analyzed more quickly to provide colleges with the ability to react in real time to improve performance in those areas.
- Conducting surveys to assist the district and the colleges plan for the return of in person instruction and work.
- Fulfilling over 194 different ad hoc data requests and data research projects for District and College Staff
- Improving and expanding the online dashboards that allow college staff to better understand student success at the program level.

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
- Becoming a more public presence at the district and the colleges through presentations and publishing more research reports.
- 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
- Taking more of a leadership role within the district in directing business processes and data collection so that more analysis can be done on various facets of district administration

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.

2020-21 saw many successes in understanding how data is collected and organized by the district and the colleges. Working closely with IT and the colleges, we have improved the knowledge of how data has traditionally stored. At the same time, we have also discovered more inconsistencies and areas for improvement in our data collection system. The complexity of the data systems, while providing richer data, also can lead to different units using different data and different data collection methods that make it difficult to report and analyze consistently across the district.

While utilizing the ODS warehouse and the Cognos framework that was set up years ago, it is time to move forward and begin to prepare for the next generation of data collection systems and method of analysis. It is an exciting time to be in institutional research in higher ed. The advances in artificial intelligence and machine learning over the last year has yielded many new insights about the factors that lead to student success. While there will always be a place for traditional Institutional Research, KCCD will need to evolve its data and analysis program to take advantage of the vast amounts of institutional data that is has collected over the years.

Our new Chancellor has made it clear that data needs to be at the center of the district and college's planning efforts. For the District Institutional Research & Reporting Unit, 2021-22 will be about building on our successes of the last three years to really focus on a centralized and integrated data system that is transparent, accurate, and most importantly trusted across the district. To do this, the Institutional Research and Reporting office will place much of its efforts on mapping data processes and communicating those processes to stakeholders in clear and transparent ways.

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]

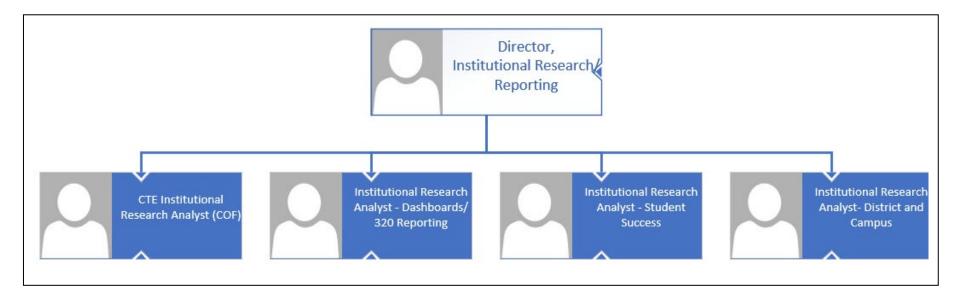
The Office of Institutional Research & Reporting (IRR) is responsible for the collection, organization, analysis, and dissemination of official data for the Kern Community College District. This data includes but is not limited to student data, financial aid data, faculty workload data, budget and finance 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 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, Assist with validation of MIS Financial Aid Data, Coordinate business practices required to submit MIS and 320 data accurately. Assist in incorporating data into new processed and initiatives such as Pell Fraud Processes and Transition Committee Work.
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, assists with MIS HR submission and IPEDS HR Submission
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	Provide relevant data to public on enrollment and student success at each of the colleges on the KCCD website, coordinate data research
Constituents	efforts with other local education agencies such as CSUB and the Kern County Superintendent of Schools.

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 and distribution of institutional data to be used in decision making processes. These data are distributed either through individual data requests or through our set of self-service dashboards which allow district and college staff to have more access to more data than ever before. Also, 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 oversees the collection and distribution 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.



Section One: Unit Overview (continued)

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	Additional notes
		Functions/Processes	
Executive Director	Supervise staff	Train and Develop Staff	
	Provide Strategic Direction for	Oversee MIS data collection	
	Institutional research	process	
	Coordinate District Wide IR	Create research agenda for	
	Activities	district office	
	Ensure all reporting and		
	compliance are completed in a		
	timely and accurate manner		
Analyst	320 Report	Ad Hoc Reporting and Research	
	IPEDS Reporting/Dashboards		
	Enrollment Cycle Reporting		
	HR 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	Position Currently not filled.
	Surveys/Dashboard		Incumbent left position in July
	MIS Validation		and first job search failed.
	HR Reporting		
	Qualitative Research		
	Financial Aid Reporting		
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
1. Provide timely and relevant enrollment management information	Goal 3: Ensure Student Access - Optimize Student Enrollment	2019-2020	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.
2. 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	2019-2020	Survey each data area head about how accurate the data being reported to internal and external agencies.	All data area heads are satisfied with the accuracy of data.
 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	2019-2020	Measure usage of dashboards via website metrics	College and District officials access dashboards and use data in decision making
 Create public facing data dashboards and documents 	Goal 4: Enhance Community Connections - Reflect the communities we serve	2019-2020	Creation of dashboards on IRR website, Measure usage of public facing dashboards via web metrics.	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	2019-2020	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	2019-2020	Assess whether or not colleges and district are in compliance with federal, state, and other agencies, and that District office and College Staff understand the compliance process	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	2019-2020		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	2019-2020	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
9. Design and execute management and institutional improvement research studies	Goal 5 - Strengthen Organizational Effectiveness - Meet and exceed internal and external standards and requirements	2019-2020	Count number of research projects completed and reported on; Count number of research projects requested	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.

The IRR Office was able to meet most of its goals

Data for the major state and federal reporting was completed despite a number of challenges in getting them done. The Program review dashboards were improved and provide extra flexibility for the types of data that colleges need to assess their programs. Response to the new dashboards were mixed, as some staff expressed a preference for simplicity of use over flexibility. The IR staff by redesigning the dashboards again to allow for better ease of use.

The IRR office also assisted in preparing for the return of students to in class by monitoring enrollment during the registration cycle and providing real time data on enrollment in different types of classes and assessing if certain enrollment initiatives were working. We also worked with the colleges IR offices to help create data that was used for targeted outreach and inreach initiatives.

Another way the IRR office helped the colleges prepare for the return to in person classes and in person work was to conduct a series of surveys that provided data on how students and staff were feeling about returning to campus. Colleges and the district used this data to make decisions on policy. We also measured the COVID-19 vaccination rate for students and staff which also helped the district and colleges create a safe learning and working environment for students.

Lastly, with new leadership in the Chancellor's Office, there is a renewed emphasis on data quality and data transparency – The IRR office has taken the lead on providing the data support for many of the recently formed transition committees to help us better understand what data is most value for growing KCCDs FTES and improving student success. An example of this assisting the schedulers implement new accounting codes that will 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. (cont.)

maximize FTES gained from non credit courses. We also have implemented the new accounting method for all alternative accounting method courses to change the term Length Multiplier from 16.3 to 17.5 again, maximizing the FTES for distance education courses.

We have begin the process of making all Student Centered Funding Formula data more available so that the IRR office and the college IR offices can find ways to increase student success and enrollment of underserved populations, all of which will increase the allocation received from the SCFF.

Despite these successes, we have received feedback that not enough data training is done by our staff so that the use of the data makes sense in the context of all of the things that the colleges are trying to achieve. So understanding how FTES is calculated is still not fully understood by deans and as a result, the way the courses are built do not maximize FTES.

Section Three: Key Performance Indicators

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)	2019-2020	2020-2021	Comments
External facing dashboards completed	5	7	The focus on the upcoming year will be to convert the public facing dashboards to more data visualizations that better tell the story of KCCD
Website hits for external facing dashboards	11,645	18,264	
Internal Data dashboards completed	24	38	IR is providing reports both on Tableau and Cognos and that has allowed us to ramp up the types of data provided
Website hits for internal dashboards	24,114	32,145	
IR reports published	8	6	
Ad Hoc Data Requests Fulfilled	108	194	This shows that colleges and district staff recognize the district IR office as a reliable source of data
Research Studies Completed	5	4	
Grants applications supported	6	8	
All Federal and State reporting completed accurately	Completed	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?

The Trend data shows that colleges and the district staff are more hungry for data than ever. We receive more data requests and activity on our data delivery platforms have increased. We have been sharing more data with our partners at CSUB and KCSOS as well and that is also reflected in the use of the external facing dashboards by the various Kern Pledge committees. It seems clear that the district understands that all decisions must be based on what data is telling us.

During the 2020-21 year, there was some turnover in the District IR office. In May, one of the research analysts moved to lowa where her husband had gotten a job. The first candidate search for this position did not turn up a suitable candidate. This loss of staff has delayed many initiatives over the summer. There has also been turnover at the college offices with Bakersfield College's being down two analysts for a good part of the year. Supporting that department as well as training the new analysts has also stretched resources thinner than usual.

The biggest challenge however has actually come from improving our understanding of KCCD's data systems. As we work with IT and the colleges to improve accuracy and streamline processes, we have discovered that there is inconsistency both across time and colleges with respect to how the data is entered in, collected, and stored. Working through these inconsistencies has proven to be a very time consuming task. Coming up with procedures that provide for consistency and at the same time allow each college to meet their individual needs has proven to be a complicated task. As such, getting data out to data users has been slower than usual. We think in the long run, going through these issues now will provide better and more nimble data analyses

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: 10/30/21	The Data warehouse has reached the fourth stage of implementation where we are working with our vendor to document all of the different parts of the data warehouse and how to deploy them within the IR offices and across the district.		
2. Create efficient and effective process for submitting MIS data for the district	Goals 5, 3, 1	Ongoing: 10/30/20	MIS FA processes were examined and in depth and we now better understand how Pell Grants and CCPG grants get recorded in MIS. We also were able to align reporting on special admit students.	All Colleges	Office of the Chancellor
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 10/30/20	This unfortunately is one of the things that has not been able to be updated. We have dashboards up, but the goal is to change them to more story oriented data visualizations that help show the community how we have been continuging to educate through the pandemic.		Office of the Chancellor

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 assure that goals align with District and college goals	Goal 5	Ongoing: 10/30/20	Did not happen. Goal is to hire full staff and then have retreat in Summer 22 to fully flesh out future direction of the office	
Update report and data delivery interface for internal data	Goal 5,1	Completed: 10/12/21		
Shift focus of IR operations from reporting, which will be automated to completing management and institutional improvement studies	Goal 5,1,3	∑_Ongoing: 10/12/20	 Have given presentations on how FTE is calculated and on various student success metrics. CTE analyst has given several presentations to CTE Deans group on how to evaluate and expand programs. Goal for next year is that each analyst create at least 2 publications that contain relevant analysis of their areas. Another goal is to prepare the district to incorporate more data science into our work. Advances in methodology can uncover new strategies and understandings about how students succeed at KCCD. IT's courting of INVOKE as a data science platform will require hiring a more diverse set of data skills within the IR office. 	

Facilitate use of data in student success efforts and long range planning	Goal 5,4	Revised: 10/20/20	Reporting still takes up most of our efforts. But this year, IR staff will be required to create narrative reports to accompany data reports.		
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	Ongoing: 10/12/20	Contacted CSUB, but Pandemic has prevented the ability to set up a program since students did not have to do a practicum. But we have talked at length with CSUB to establish KCCD as a possible site where grad students can do work for us.		
Update current Job Descriptions and expand analyst job descriptions into three types of analysts	Goal 5	Ongoing: 10/12/20	Education Data Scientist Job position in process with HR, and two more positions being developed, a Senior Research Analyst and an entry level research technician position to provide staff a career pathway at KCCD.	All Colleges	

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 Process Maps for key data elements to increase data literacy and transparency for all district and college staff as to how data elements get populated.	Goal 2, 3, 6, 7	Have started a roadmap for understanding how Pell Grants are awarded in response to Pell Fraud issues. Also CCPG roadmap has been started. Been working with schedulers to better understand how classes get built and are classified.		

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	Virector esearch 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 5 explorer licenses for district to access dashboards 5 SAS Statistical software license
Space / Facilities	for four pe • 1 office su	eople	rkspaces, including one for an associate	ets and furniture for a conference table e director, 1 conference area with
Budget (Unrestricted) Tot		\$587,898.60	Notes (ii	f any)
1000 (Academic Salaries))	\$0.00		
2000 (Classified Salaries)		\$359,675.12		
3000 (Employee Benefits	5)	\$188,423.50		
4000 (Supplies & Materia	als)	\$1900		
5000 (Operating Expense	es and	\$37,900		
Services)				
6000 (Capital Outlay)		\$1,000		
7000 (Other Outgo)		\$0.0		
Budget (Restricted) Total \$0.00		\$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: 1) Assistant Director 2) Research analyst – Data alignment Specialist 3) Higher Ed Data Scientist 	 1: Classified Staff 2: Administrator Assistant Director, 100K Salary plus Benefits Research Analyst 74K Salary plus benefits. Data Scientist 90K salary plus beneifits 	The increased demand for data and the desire to use more advanced data techniques will allow the IRR office to provide more cutting edge analysis to meet the goals of FTE Growth and increasing. The increased demand on the IRR office to assist with overseeing operational processes also requires for an additional management staff to assist with managing the projects that are associated with implementing a full data governance program.		2

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 	Having one analyst dedicated to aligning data by mapping how data gets entered and finding the discrepancies in our current data and our current data practices will relieve the load off of the director, who up to this point has done most of the work for data quality and alignment.		
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	The use of Tableau continues to grow. All IR staff across the district have become more adept at using it which allows the IR offices to create more impactful reports and data visualizations. Part of expanding the use is to purchase individual licenses for key staff at the district and college so that the the dashboards and visualizations can be even more specialized and customized to our clients' needs. We have been discussing this for a while and we have reached the limits of what we can do with our current tableau	All Colleges	1

	installation without more	
	licenses.	

Other Equipment: \$12,000 to fund four desktop computers (1 replacement and 3 new machines) and three laptops need to be purchased for the new staff positions	 ☐ 1: Replacement ☐ 2: New ☐ 3: Other 	The increased dat platforms require computers. Not I machines will slov gathering and and considerably.	e updated naving updated w down data	3
Total cost of resource needs over and above current budget allocation:		\$300,000		

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 advances that the Office of Institutional Research and Reporting made in 2020-21 were paradoxical. On the one hand, IRR continued to provide data and analysis to the district and continued to support the work that the college institutional researchers have been doing. On the other hand, the more we learn about how data is collected and organized, the more we have discovered some less than optimal business practices that result in a decrease in the quality of data as well as a decrease in the amount of time needed to get data to stakeholders and decision makers. The pandemic has only reinforced the idea that higher education is an extremely dynamic environment. For the District Institutional Research and Reporting office, 2021-22 will be about preparing KCCD to be able to truly leverage the data that is contained within our data systems. By staying on the cutting edge of data practices and analytical methods, KCCD will be better prepare its student for success at KCCD and beyond.

Routing and Review

Submitter's Name:	Bob Ngo
Title:	Director of Institutional Research & Reporting
Submitter's Signature:	
Date Submitted:	
Submitter's Immediate S	upervisor:
Date of Review:	
Chancellor's Signature:	
Date of Review:	
Date of Presentation to A	Administrative/Consultation Council: