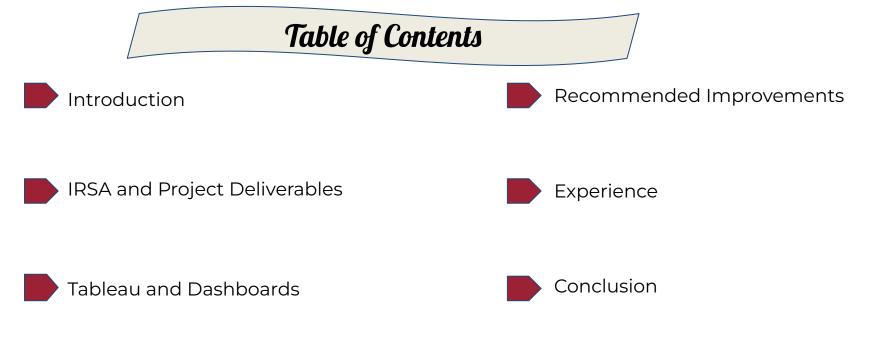


Project DA-FANH internship experience at CSU Chico's Institutional Research & Strategic Analytics by: Telma Cruz and Evan Burkhardt





Hardships & Solutions

IRSA & Project Deliverables

IRSA:

- Institutional Research and Strategic Analytics
- Provides data analysis and reporting to the University and other campus units

Project:

- Exploratory Research on improving current dashboards

Tableau:

- Data visualization software

Dashboards:

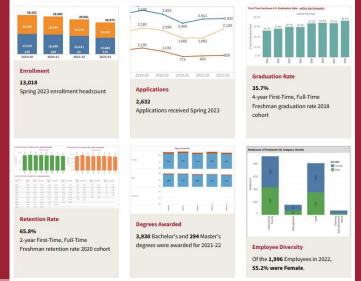
- Enrollment
- Degrees Awarded

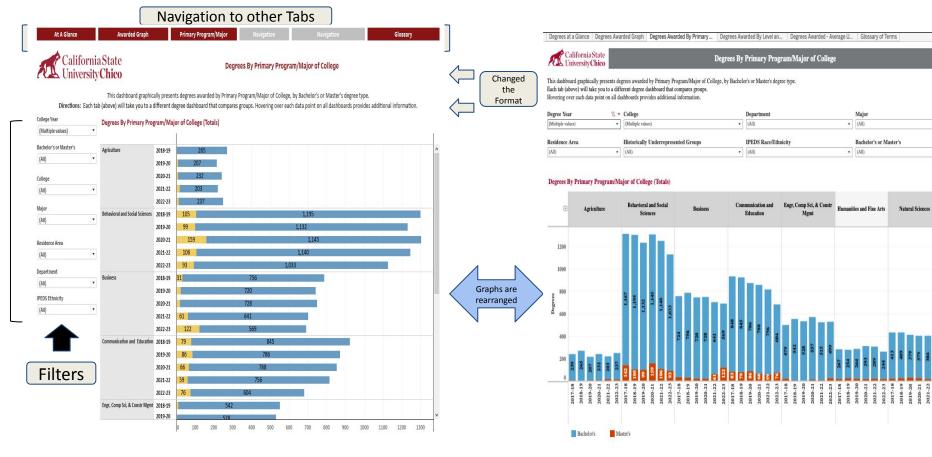


Fact Book

These interactive data dashboards provide the most up-to-date numbers available to campus.

Dashboards present data visually. Tabs across the top take you to different items of interest.





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Bachelor'	College	2018-19	2019-20	2020-21	2021-22	2022-23				8-19		9-20			0-21				1-22	2			2022-23	1	
Bachelor's	Agriculture	6.21%	5.15%	5.63%	5.17%	6.71%				2018-		2019-			2020-	é.			2021	171			202	i i	
	Behavioral and Social Sciences	28.01%	28.18%	27.76%	29.01%	29.26%		60.0%						_											
	Business	17.72%	17.92%	17.65%	16.31%	16.11%																			
	Communication and Education	19.80%	19.57%	19.11%	19.24%	17.11%	Bachelor's	40.0%	%0	2	×2				%8%			%0.				.3%			
	Engr, Comp Sci, & Constr Mgmt	12.70%	13.1496	13.51%	13.10%	14.13%	Bachelor s	% of	8	%8.6 %	8		28	Í	- 1%	i »		R	3%	1 28		N	1%	8	
	Graduate Studies	0.02%	0.02%	0.05%				20.0%	X	1 7.21 9.6%	8		13.19 6%	94%		13.5	9.7%	8	4	13.12	4% 9.8%	×.	35	14.1	%8.6 %8.6
	Humanities and Fine Arts	5.95%	6.57%	7.10%	7.35%	6.91%		0.0%	6.7	3	5.2		, i	Š.			1Ï	5.2			ĥ	ů l			ά Γ
	Natural Sciences	9.59%	9.43%	9.19%	9.82%	9.77%		60.0%						+	L5										
Master's	Agriculture	1.42%	2.94%	2.88%	6.12%	3.23%	-		969	2	2%			17	4			%8					\ 9		
	Behavioral and Social Sciences	37.37%	36.40%	50.96%	36.05%	25.00%	Master's	40.0%	2	% #	ž	31.9%						36.				5%	33.5%	3	
	Business	11.03%	8.09%	6.41%	20.75%	32.80%	Care of C	20.0%		N 12			,	æ	21.49	_			21.2%			S	%6.0Z		
	Communication and Education	28.11%	31.62%	21.15%	20.07%	20.43%		20.076		%1.11 %0.0 %0.0	% %		7.8%	***	5.5%	81	%T.8	9.3%		*	5. 6 %	%		7.4%	ž ž
	Engr, Comp Sci, & Constr Mgmt	3.56%	1.10%	4.17%	2.38%	7.26%		0.0%	149		s	ļļ	1 119	2	<u>i</u> T					2.4		s 3.3			, 4
	Graduate Studies	0.71%	0.74%	0.96%	2.04%	2.15%			riculture Sciences	Business Business Education instr Mgmt Affine Arts	griculture I Sciences	lucatio	tr Mgmt Fine Arts Sciences	ricultur	Science: Busines: Jucation	tr Mgm	Science	griculture I Sciences	Busines	tr Mgm	Fine Arts Sciences	ricultur Science	Susines: lucatio	Σ	fine Arts Sciences
	Humanities and Fine Arts	8.90%	7.72%	5.45%	6.46%	4.57%			Agricu Social Sci	and Ed & const & const s and F	Agr Social:	and Ed	& Const is and F laturals	Agr	Soca I	& Const	is a municipal stands	Agr		8	is and F	Agrici Social Sci	8 pue	& Const	is and F latural S
	Natural Sciences	8.90%	11.40%	8.01%	6.12%	4.57%			hand	ma nitie	a land	ication	mp Sci, ¿ ma nitie		a la	np Sci, J	z	ta land	note	np Sci, 2	ma nitie	ia land	cation	np Sci, 2	2
		20% 40% 60%	20% 40% 60%	20% 40% 60%	20% 40% 60%	20% 40% 60%	-		ie havio	Communication of the second se	chavio	unuu	Hur Hur	ļ į	chart	Igt, Cor	1	tehavio		Engr, Con	Ŧ	teliavio		Engr, Con	ź
		% of Total			-	8	-	8	5	1	. 8	5		-	9	1 2		-	3	2					

Degrees By Year By Primary Program/Major of College (Percent)

Degrees By Year By Primary Program/Major of College (Percent)



Hardships

- + No prior experience with Tableau
- Understanding the filters and what they meant
- + Facing challenges in Creativity



Solutions

- Don't be afraid to ask your team questions
- Take your time in learning a new tool/skill
- + Small steps to Big Wins



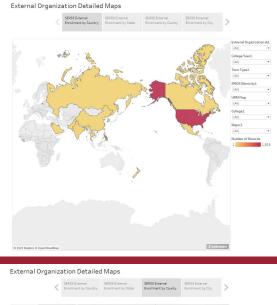
Enrollment at a Glance dashboard features information and data visualizations regarding specific areas of interest. College Year Term Type Term Enrollment Type College of Major Enrollment by County Enrollment by College of Primary Major Enrollment: 13,999 Natural Sciences 11.78% FTES Engr, Comp Sci, & Constr Mgmt 16.99% Undergraduab Education 4.56% 13,012.5 Full-Time 12,471 Behavioral and Social Sciences 24.32% Part-Time cation and Educa 15.54% 1,528 Business 13,89% Gender First Generation by IPEDS Race/Ethnicity American Indian/Alaskan Nati. Unknown 📃 Not-First Generation 📒 First Generation 0.29% Asian (Non-Hispanic) 402 327 Nonbinar Black/African American (Non-... 222 43.61% Hispanic/Latino (any race) 1,307 Male Native Hawaiian/Other Pacific . Non-Resident Alien 265 Two or More Races (Non-Hisp., 273 504 Unknown 235 241 White (Non-Hispanic) First Generation Underrepresented Minority First Generation by URM (URM) Unknown Not-First Generation First Generation First Generation Not-First Generation Unknown 4.54% Non-Underrepresent 2.758 5.120 Minority (Non-URM) 48.50% 40.37% URM First Generation 46.97% 59.63% Not-First Generation Non-URM Underrepresented Minority 1,455 4.031 (URM)

C Enrollment at a Glance Census Enrollment Graph Census Enrollment by College ... Census Enrollment Data Census Enrollment Breakdown Annualized Census Enrol

Enrollment at a Glance

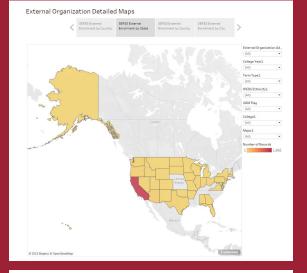
California State

University Chico

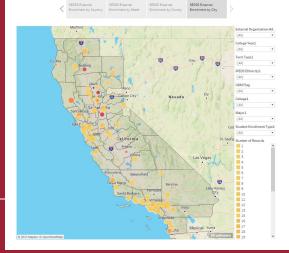












Evan's Hardships

- 1. Getting started on the project & figuring out what to work on
- 2. Understanding the data
- 3. Unable to download Tableau on our computers
- 4. Nesting a filter inside of another filter

Evan's Solutions

- 1. Constant flow of communication
- 2. Dedicating time to reading the data and asking many questions
- 3. Tableau Community assistance
- 4. Still unsolved

Recommended Improvements

- Using too many filters appears intimidating and can obscure the data presented in a table

What can happen...

Degrees By Year By Primary Program/Major of College (Percent)

Bachelor'	College	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1											
Bachelor's	Agriculture	433855533488322211811212222878422222222222223444446555556											
	Behavioral and Social Sciences	\$ 4\$7\$2\$2\$8\$8\$6\$6\$6\$5\$5\$4\$5\$7\$8\$0\$\$\$4\$\$\$\$4\$6\$4\$3\$2\$1\$1\$0\$9\$9\$2\$1\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2\$2											
	Business	14121545171880022123219321992121229900181717151545131545161718866651717168817181718171817191717171616											
	Communication and Education	ŀ9₽2₽2₽2₽3₽3₽3₽2₽3₽1₽2₽3₽5₽8₽7₽0₽8₽6₽6₽8₽9₽7₽060₽3₽2₽2₽1₽080₽7₽7₽5₽5₽3₽4₽4₽4₽3₽2₽2₽00191919191											
	Engr, Comp Sci, & Constr Mgmt	5.07.07.46.87.79.51012 13 15 17 17 16 12 11 11 8.78.57.27.36.17.26.26.15.35.38.37.67.77.89.09.610 11 10 11 10 12 10 9.510 10 10 11 12 13 13 13 14											
	Graduate Studies	0.51 82 71 81 50 51 11 00 80 60 00 30 40 20 30 20 10 30 10 20 10 20 10 20 40 60 71 01 40 60 70 30 50 50 70 70 30 20 20 00 00 00 00 00 00											
	Humanities and Fine Arts \$211110109.18.38.37.57.57.46.77.36.87.38.88.39.69.3/11011111011110111201112011120111201112												
	Natural Sciences 8 4 2 1 2 1 3109 19 49 59 59 (2 9 59 59 57 59 49 18 65 57 47 38 59 38 (8 57 47 26 57 57 58 69 39 69 (3 48 79 38 59 79 21010 9 59 49 19												
	No Value	0.5021.22.02.42.32.32.42.42.11.71.41.42.43.22.51.42.12.51.92.22.31.81.52.01.2											
	Undergraduate Education	00)000000000 00											
Aaster's	Agriculture	1.42.22.42.84.44.55.77.02.52.23.54.40.73.51.42.20.62.21.00.60.70.60.50.5 3.61.12.44.33.01.42.52.66.13.2											
	Behavioral and Social Sciences	2524212930242216242420221522172319192317 <mark>3</mark> 521232029152115292524243031332929338331418134433736 <mark>5</mark> 03625											
	Business	8.34.46.45.66.74.46.24.75.56.26.53.65.67.68.08.57.19.67.56.09.26.4137.410 <mark>16111</mark> 27.68.49.54.66.39.67. <mark>51311161</mark> 27.56.36.59.510 <mark>1</mark> 18.66.420 <mark>3</mark> 2											
	Communication and Education	2626252824293373736358235293322353127802927282934283426322325252621212833262930262721252831212020											
	Engr, Comp Sci, & Constr Mgmt	6.49.3104.85.85.83.89.47.38.09.512.13.14.152018.17.1722.10 <mark>2</mark> 5.14196.C12.11118.51516 <mark>201718.191</mark> 56.76.66.36.45.19.1156.13.51.14.12.37.2											
	Graduate Studies	5.(8, 59, 1107, 6109, 59, 46, 49, 7) 38.61 16.66.67, 15, 54.46.(6, 55, 76, 65, 67, 49, 38, 24, 53, 64, 56, 52, 56, 52, 21, 71, 62, 61, 52, 51, 44, 10, 63, 20, (0, 30, 70, 70, 52, 62, 10)											
	Humanities and Fine Arts	1513131116111210109.39.58.6139.4128.66.59.2119.17.15.49.57.46.61110149.6121312107.68.66.59.67.69.20.108.56.54.68.57.75.4644.5											
	Natural Sciences	11107.15.24.48.55.14.75.54.12.16.14.25.45.26.15.16.12.16.12.16.15.17.43.67.16.547.77.16.15.15.48.97.12.47.65.16.17.16.48.91.18.16.14.5											
	No Value	143:20 0.5 0.4											

What should look like if minimizing the amount of filters used.

Degrees By Year By Primary Program/Major of College (Percent)

Bachelor'	College	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-
Bachelor's	Agriculture	2.77%	3.61%	4.95%	4.60%	4.81%	4.69%	5.57%	6.21%	5.15%	5.63%	5.17%	6.71%
	Behavioral and Social Sciences	23.46%	25.12%	26.73%	27.11%	28.03%	27.39%	28.26%	28.01%	28.18%	27.76%	29.01%	29.2
	Business	17.53%	18.45%	17.63%	18.23%	17.63%	19.17%	17.53%	17.72%	17.92%	17.65%	16.31%	16.11
	Communication and Education	24.61%	24.21%	23.48%	22.22%	22.81%	20.53%	20.53%	19.80%	19.57%	19.11%	19.24%	17.1
	Engr, Comp Sci, & Constr Mgmt	12.71%	10.27%	9.55%	10.04%	10.08%	10.40%	11.60%	12.70%	13.14%	13.51%	13.10%	14.13
	Graduate Studies	0.28%	0.20%	0.09%		0.08%	0.08%	0.05%	0.02%	0.02%	0.05%		
	Humanities and Fine Arts	9.85%	8.90%	8.73%	8.07%	7.36%	7.16%	6.46%	5.95%	6.57%	7.10%	7.35%	6.91%
	Natural Sciences	8.79%	9.24%	8.84%	9.72%	9.21%	10.58%	10.00%	9.59%	9.43%	9.19%	9.82%	9.779
Master's	Agriculture			3.81%	1.15%	2.41%	4.35%	3.08%	1.42%	2.94%	2.88%	6.12%	3.23%
	Behavioral and Social Sciences	33.41%	33.05%	31.09%	41.55%	31.10%	34.16%	43.69%	37.37%	36.40%	50.96%	36.05%	25.0
	Business	16.59%	12.07%	7.92%	6.30%	6.97%	9.32%	10.15%	11.03%	8.09%	6.41%	20.75%	32.1
	Communication and Education	26.50%	29.60%	30.50%	26.07%	27.35%	21.74%	25.54%	28.11%	31.62%	21.15%	20.07%	20.4
	Engr, Comp Sci, & Constr Mgmt	6.68%	6.32%	6.45%	5.16%	9.12%	15.53%	6.15%	3.56%	1.10%	4.17%	2.38%	7.269
	Graduate Studies	2.53%	1.44%	4.11%	0.86%	3.22%	0.62%	0.31%	0.71%	0.74%	0.96%	2.04%	2.159
	Humanities and Fine Arts	7.60%	9.20%	9.09%	10.03%	8.58%	6.52%	4.62%	8.90%	7.72%	5.45%	6.46%	4.579
	Natural Sciences	6.68%	8.33%	7.04%	8.88%	11.26%	7.76%	6.46%	8.90%	11.40%	8.01%	6.12%	4.579
		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	509

Recommended Improvements

- Pick out specific LinkedIn Learning videos to give to new interns.
- Thorough explanation of the data sheets and what is included in the dashboards.
- Immediately setting up meetings with the other employees at the start of the internship. It took a while to feel like part of the team.



Conclusion

- Major recommendations:
 - Improve the onboarding process
 - Dedicate the first 1-2 weeks to meeting the team and learning the data
- Outcome of our dashboards & what they are supposed to achieve:
 - Create new ideas for improving IRSA dashboards
 - Review & update original dashboards
- How we felt about the internship:
 - Evan: This was an amazing experience learning how to visualize data.
 - Telma: Would recommend to students, if I could do it all over again I would.

