

Insights from Recent Awardees

NSF HIS STEM HUB MAY 19, 2020 Webinar



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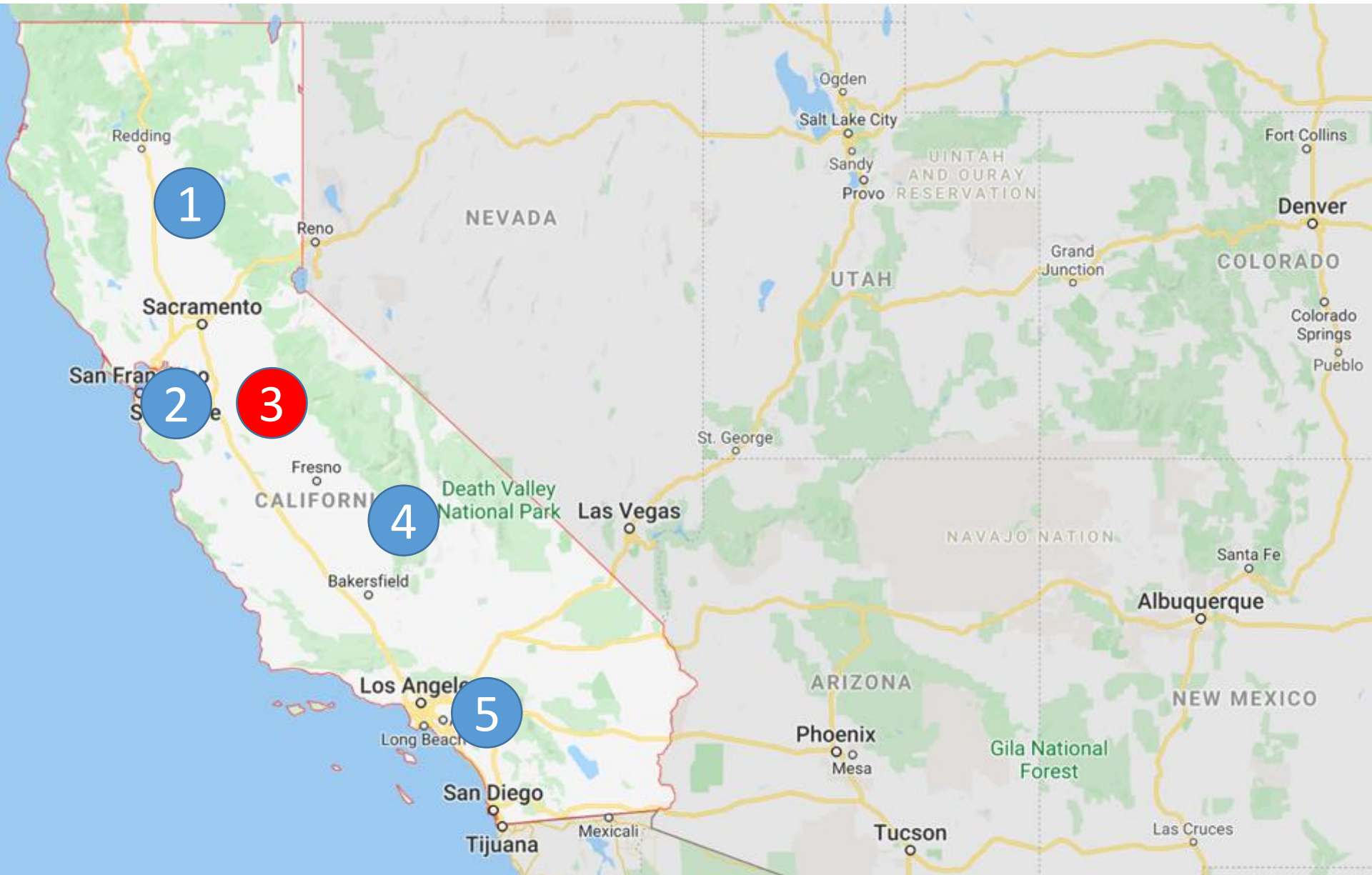
CALIFORNIA STATE UNIVERSITY
Stanislaus
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Insights from our Experience

1. Honest interrogation of the institution
2. Link to social science theory and research
3. Multi-disciplinary collaboration
4. Challenges of navigating NSF

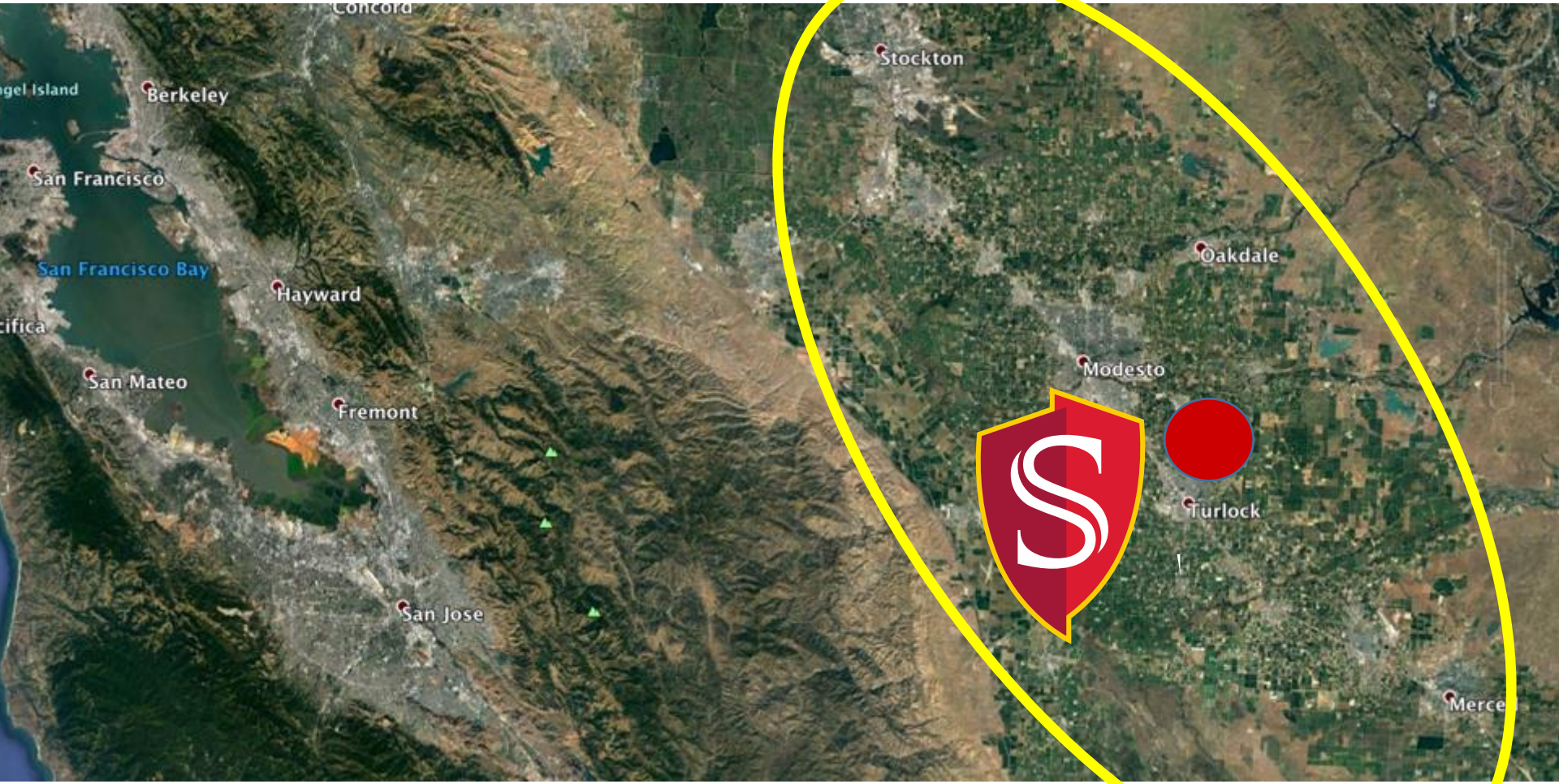


Where is CSU Stanislaus?



Context is Important!

San Joaquin Valley- Turlock, Ca





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- Mid-sized (~10k students), regional state college located in the San Joaquin Valley, an under-served region of CA.
- 1 of the 23 campuses of California State University system (~0.5 million students)
- 50% Latinx, 79% first-gen students.



What does it mean to be Latinx-serving?

Organizational Outcomes for Latinxs	High	Latinx-Producing	Latinx-Serving
	Low	Latinx-Enrolling	Latinx-Enhancing
		Low	High
Organizational Culture Reflects Latinxs			

Garcia, G. A. (2017). [*Defined by outcomes or culture? Constructing an organizational identity for Hispanic-Serving Institutions.*](#)

American Educational Research Journal. 54(1S), 111S-134S.

doi:10.3102/0002831216669779

What about your institution?

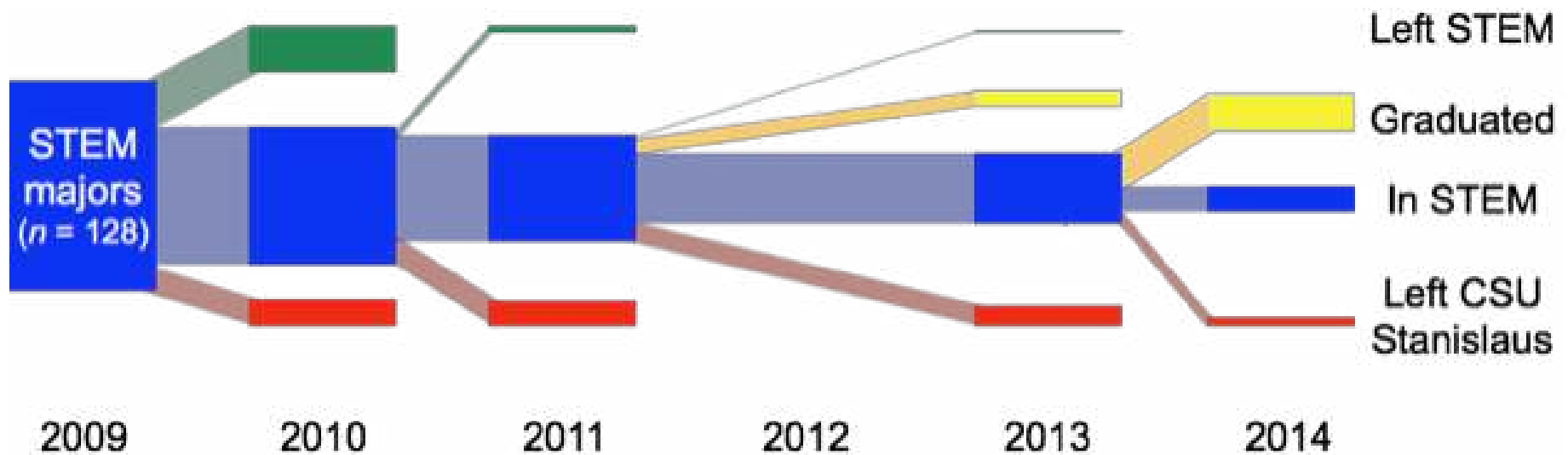
Organizational Outcomes for Latinxs	High	2 Latinx-Producing	4 Latinx-Serving
	Low	1 Latinx-Enrolling	3 Latinx-Enhancing
		Low	High
Organizational Culture Reflects Latinxs			

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	Asian	Black	Latinx	White
2016 Enrollment	10%	2%	50%	20%
2014-15 BA/BS	11%	2%	41%	30%
2014-15 STEM BS	14%	1%	36%	33%



- Students identify “sense of belonging” (77%) and “concern about low grades” (52%) as top reasons for leaving STEM majors.
- High DFW rates in intro/gateway courses: Organic Chemistry 46%, Intro Geology 41%, General Biology 35%, Intro Statistics 34%, Calculus 34%, General Chemistry 32%, Cellular and Molecular Biology 32%
- Faculty inconsistently use evidence-based teaching practices: cooperative learning (58%), formative feedback (47%), inclusive teaching (32%), metacognition (26%).

Demographics of Stan State Students (by major) and Faculty. All data from IR website.

	Univ	COS	Biol	Chem	Child Dev	Comp Sci	Geol	Math	Nurs	Pre-Nurs	Phys/PSci	Psych	FT Faculty	PT Faculty
Number of Students (Fall 17)	10,033	3,110	726	105	234	310	26	138	210	134	52	1,131	340	327
First Generation (%)	70	70	66	69	75	64	47	67	62	72	62	74	-	-
Pell Eligible (%)	63	64	61	61	63	59	65	62	50	62	61	71	-	-
Female (%)	65	70	68	52	97	14	33	44	83	86	20	80	46	57
Race/Ethnicity (% of all '08-'18 students)														
Hispanic/Latinx	47	46	42	40	49	40	27	43	24	43	36	55	11	14
White	26	25	24	25	27	26	53	34	31	24	37	22	64	66
Asian	10	13	18	16	7	15	1	8	25	17	7	8	16	6
Black/African American	3	3	2	2	3	2	3	<1	2	3	6	3	4	4
Hawaiian/Pacific Islander	1	1	2	2	<1	1	1	1	0	1	0	<1	<1	0
Native American	<1	<1	<1	<1	<1	<1	0	<1	1	1	0	<1	<1	0
Two or more races	4	3	5	5	4	2	2	2	5	2	5	4	<1	2
Non Resident	4	3	4	4	4	5	8	4	2	2	4	3	-	-



www.csustan.edu/ciencia

Collaboration for Inclusive and Engaging Curriculum, Instruction, and Achievement

2018 Award: Track 1: Building Capacity: Critical Transitions

Goal: CIENCIA will improve student retention, graduation, and success in STEM by transforming the culture of teaching and learning through a faculty-driven professional development program focused on evidence-based and culturally-relevant teaching in gateway courses.

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