

ZTC Dashboards at Chabot College:

Using Tableau to Visualize Course Mapping
(Dashboards still under construction and subject to change)

OERI Presentation

12/1/2023

Presenters: Alex Karan, Cristina Moon, & John Chan

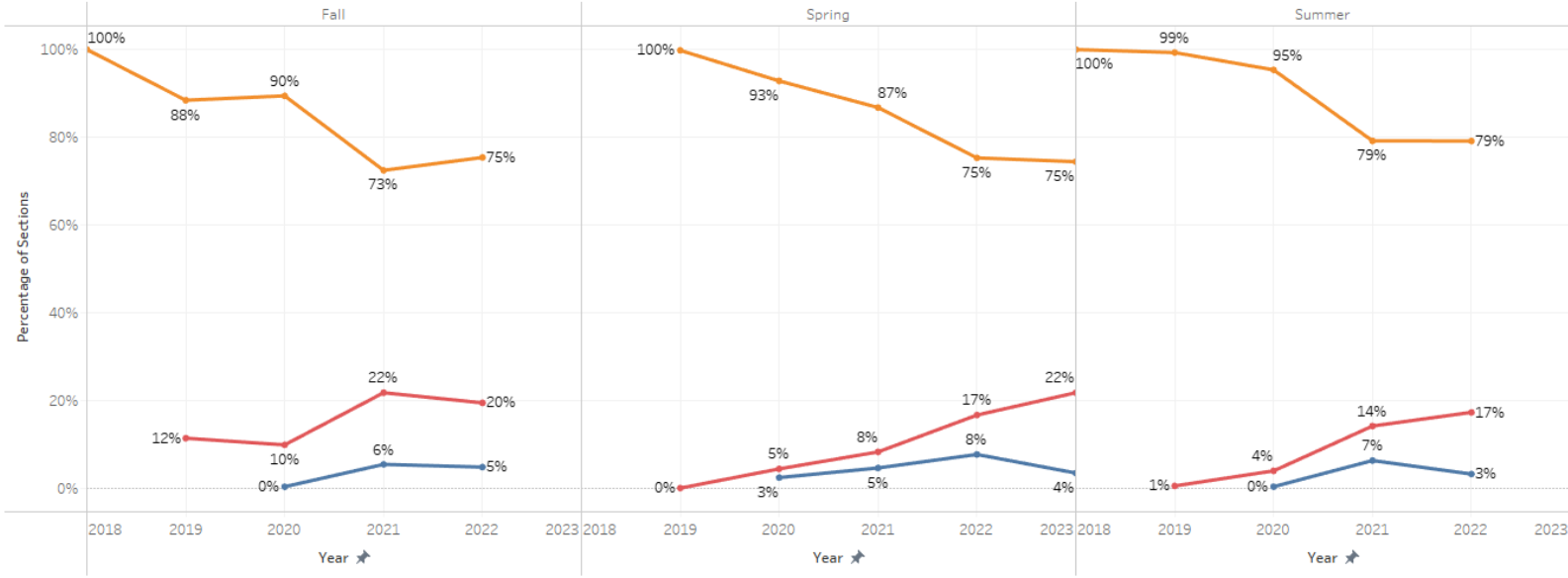
3 Chabot ZTC Dashboards

1) Percent ZTC/ LTC by Section

a) Example: What percent of all sections offered at Chabot are ZTC?

ZTC/LTC Sections by Semester

Percentage of Sections by Semester



Textbook Cost

- Low Textbook Cost
- Normal Cost
- Zero Textbook Cost

Term

(All)

Division

(All)

Subject

(All)

Course Number

(All)

Modality

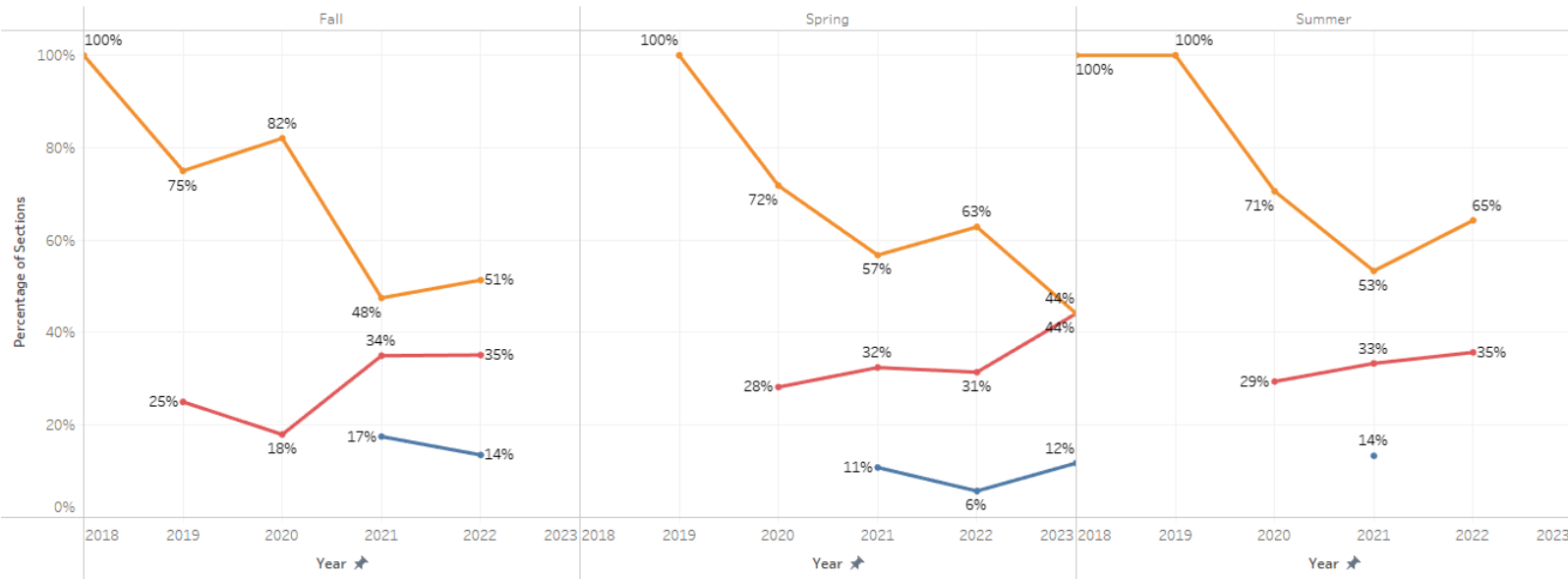
(All)

Number of Sections by Semester

	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Spring 2019	Spring 2020	Spring 2021	Spring 2022	Spring 2023	Summer 2018	Summer 2019	Summer 2020	Summer 2021	Summer 2022
Low Textb..			7	74	68		39	64	99	50			2	28	14
Normal Co..	1,607	1,364	1,231	960	1,032	1,563	1,404	1,164	950	1,030	407	435	371	343	327
Zero Textb..		178	138	290	268	3	69	113	212	303		3	16	62	72
Grand Total	1,607	1,542	1,376	1,324	1,368	1,566	1,512	1,341	1,261	1,383	407	438	389	433	413

ZTC/LTC Sections by Semester

Percentage of Sections by Semester



Textbook Cost

- Low Textbook Cost
- Normal Cost
- Zero Textbook Cost

Term

(All)

Division

(All)

Subject

PSY

Course Number

(All)

Modality

(All)

Number of Sections by Semester

	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Spring 2019	Spring 2020	Spring 2021	Spring 2022	Spring 2023	Summer 2018	Summer 2019	Summer 2020	Summer 2021	Summer 2022
Low Textb..				7	5			4	2	4					2
Normal Co..	40	30	32	19	19	35	28	21	22	15	12	15	12	8	
Zero Textb..		10	7	14	13		11	12	11	15			5	5	
Grand Total	40	40	39	40	37	35	39	37	35	34	12	15	17	15	

List of All Courses and ZTC/LTC Status

Term	Division	Izrenrl Subj ..	Izrenrl Crse ..	Izrenrl Crn	Six Modalities (Appren..					
Spring 2023	Social Sciences	PSY	1	30453	Face-to-Face	Normal Cost				
				30454	Face-to-Face	Normal Cost				
				30455	Face-to-Face	Zero Textbook Cost				
				30456	Face-to-Face	Zero Textbook Cost				
				30457	Face-to-Face	Normal Cost				
				30458	Online Asynchronous	Zero Textbook Cost				
				30459	Online Asynchronous	Zero Textbook Cost				
				30460	Online Asynchronous	Zero Textbook Cost				
				30461	Online Asynchronous	Zero Textbook Cost				
				30463	Online Asynchronous	Zero Textbook Cost				
				30972	Online Asynchronous	Zero Textbook Cost				
				31319	Online Asynchronous	Zero Textbook Cost				
				2				30832	Online-Combined	Zero Textbook Cost
								30888	Online Asynchronous	Zero Textbook Cost
				3				30462	Online Synchronous	Normal Cost
				4				31219	Online Asynchronous	Zero Textbook Cost
								31320	Online Asynchronous	Low Textbook Cost
								32108	Online Asynchronous	Low Textbook Cost
								32171	Online Asynchronous	Low Textbook Cost
				5				30592	Face-to-Face	Normal Cost
								30981	Face-to-Face	Normal Cost
								31161	Online Asynchronous	Zero Textbook Cost
								31326	Face-to-Face	Zero Textbook Cost
								31637	Online Asynchronous	Zero Textbook Cost
								32151	Face-to-Face	Normal Cost
								32566	Online Asynchronous	Normal Cost
				33170	Online Asynchronous	Normal Cost				
5W				31646	Online Asynchronous	Low Textbook Cost				
				31994	Face-to-Face	Normal Cost				
6				31153	Face-to-Face	Normal Cost				
				31770	Face-to-Face	Normal Cost				
12				30509	Online Asynchronous	Normal Cost				
				31977	Face-to-Face	Normal Cost				
				32048	Online Asynchronous	Normal Cost				

Term

ZTC/LTC

Division

Subject

Course Number

CRN

Modality

3 Chabot ZTC Dashboards

1) Percent ZTC/ LTC by Section

a) Example: What percent of all sections offered at Chabot are ZTC?

2) Percent of students taking at least 1 ZTC/ LTC course

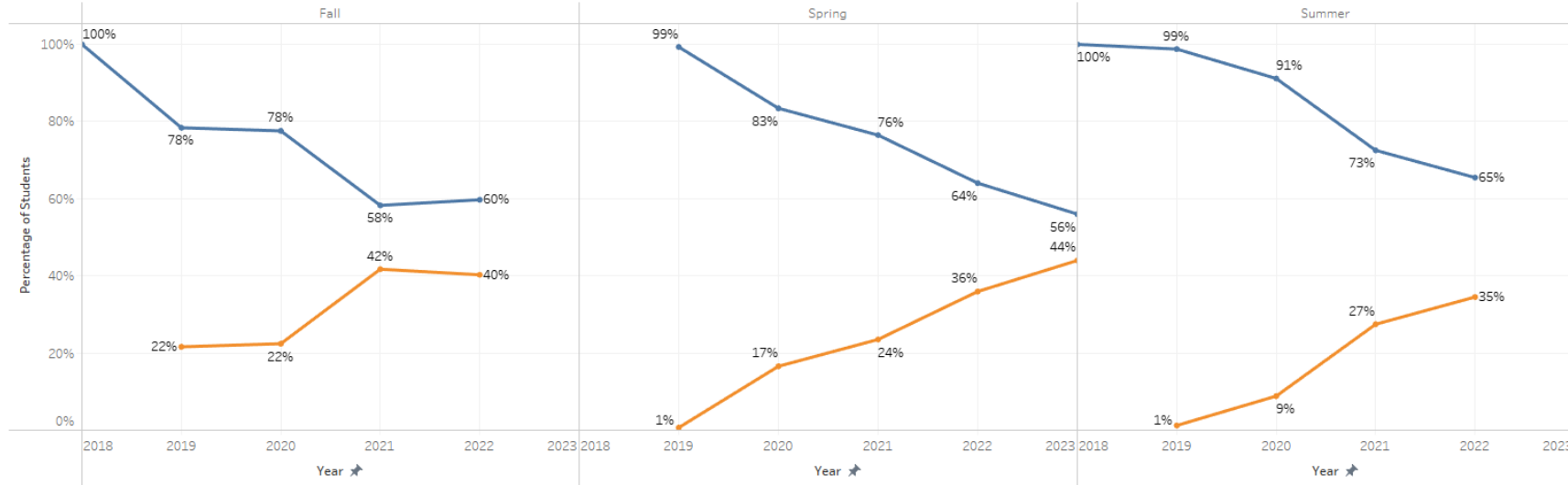
a) Example: Of the ~12,000 students at Chabot, what percent are taking a ZTC course? Does this change by demographic?

ZTC Student Characteristics

LTC Student Characteristics

ZTC Student Characteristics by Semester

Percentage of Students by Semester



ZTC

- ZTC Student
- Not ZTC Student

Term

(All)

Age

(All)

Attendance Status

(All)

Disability

(All)

Gender

(All)

Income Status

(All)

Race-Ethnicity

(All)

ZTC Majors

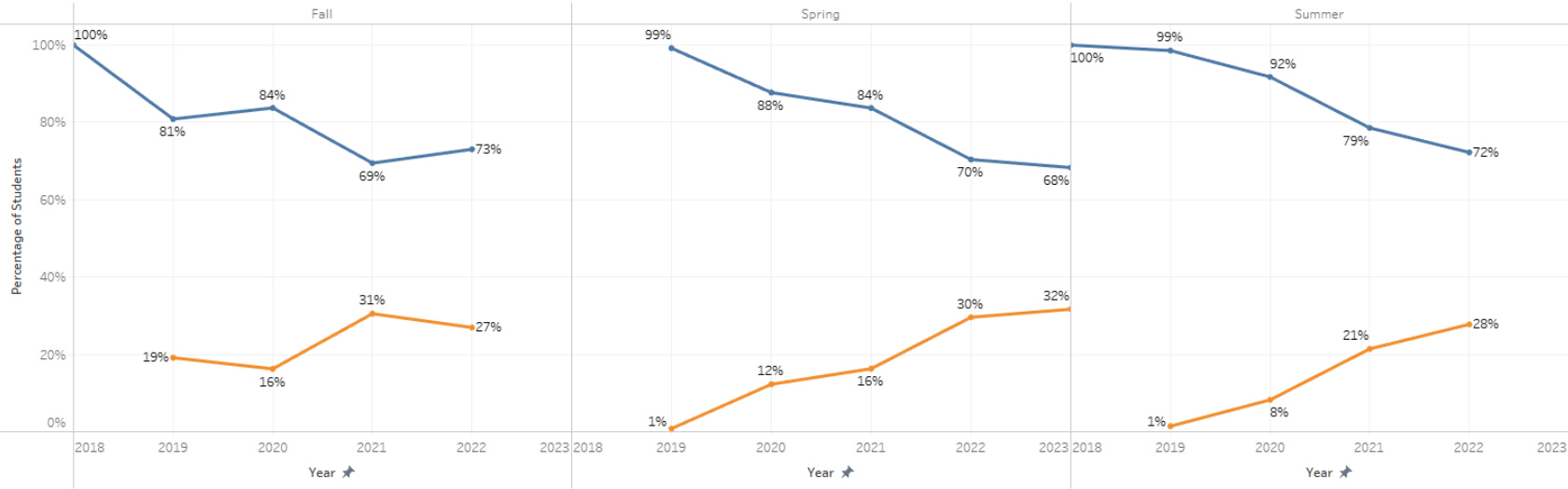
(All)

Number of Students by Semester

	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Spring 2019	Spring 2020	Spring 2021	Spring 2022	Spring 2023	Summer 2018	Summer 2019	Summer 2020	Summer 2021	Summer 2022
ZTC Student		3,074	2,903	5,004	4,650	92	2,208	2,944	3,819	4,976		91	626	1,802	1,939
Not ZTC Student	14,501	11,146	10,043	6,987	6,894	13,361	11,118	9,572	6,803	6,334	7,101	7,310	6,448	4,760	3,677
Grand Total	14,501	14,220	12,946	11,991	11,544	13,453	13,326	12,516	10,622	11,310	7,101	7,401	7,074	6,562	5,616

ZTC Student Characteristics by Semester

Percentage of Students by Semester



ZTC

- ZTC Student
- Not ZTC Student

Term: (All) ▾

Age: (All) ▾

Attendance Status: (All) ▾

Disability: (All) ▾

Gender: (All) ▾

Income Status: (All) ▾

Race-Ethnicity: White ▾

ZTC Majors: (All) ▾

Number of Students by Semester

	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Spring 2019	Spring 2020	Spring 2021	Spring 2022	Spring 2023	Summer 2018	Summer 2019	Summer 2020	Summer 2021	Summer 2022
ZTC Student		385	320	555	506	17	243	328	524	578		14	83	202	218
Not ZTC Student	2,281	1,627	1,648	1,263	1,371	2,074	1,736	1,684	1,246	1,246	990	962	924	741	567
Grand Total	2,281	2,012	1,968	1,818	1,877	2,091	1,979	2,012	1,770	1,824	990	976	1,007	943	785

3 Chabot ZTC Dashboards

1) Percent ZTC/ LTC by Section

a) Example: What percent of all sections offered at Chabot are ZTC?

2) Percent of students taking at least 1 ZTC/ LTC course

a) Example: Of the ~12,000 students at Chabot, what percent are taking a ZTC course? Does this change by demographic?

3) Percent of degree programs that are ZTC

a) Example: Within an Anthropology AAT, how much of the program is able to be taken without paying for books?

ZTC Program Dashboard

AA-T ANTH	AA-T COMM	AA-T POSC	AA-T SOCI	AA-T SPA	AS-T ECD	CA FRNC	CSU GE A1-B4	CSU GE C1-F	IGETC Area 1A-3B	IGETC Area 4-7
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	Not ZTC	ZTC
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ES	2	4%	1	4%
GEO	2		1	4%
	3	1	4%	
	10	1	4%	
	20	1	4%	
MTH	43		1	4%
MUSL	3		1	4%
PSCN	4		1	4%
	13		1	4%
PSY	5		1	4%
RELS	50		1	4%
SOCI	3		1	4%
	5	1	4%	

Grand Total	8	17
	32%	68%

Future Directions

- 1) Add in more degree/ certificate pathways to see percent ZTC
 - a) E.g., AA Liberal Arts

- 2) Course success
 - a) Are students in ZTC succeeding at different rates compared to non-ZTC?

- 3) Open to suggestions: What else would be helpful to make decisions about future ZTC courses?

Can continue discussions about equity and access to education, and make decisions about how to close the remaining gaps.

Thank you

- Email for dashboard questions
 - akaran@chabotcollege.edu

SAN DIEGO COMMUNITY COLLEGE DISTRICT

Data, OER, and ZTC Pathways: Using Research to Understand
and Advocate

Fall 2023



Presenters:

Brian Weston, Dean of Online & Distributed Learning

Desiree Payne, Systems Support Analyst



SDCCD Colleges

SAN DIEGO
CITY COLLEGE

SAN DIEGO
MESA COLLEGE

SAN DIEGO
MIRAMAR
COLLEGE

SAN DIEGO
COLLEGE OF
CONTINUING
EDUCATION



Areas of Collaboration

- OER/ZTC Faculty Coordinators
- Student Textbook Affordability Committee (STAC)
- Curriculum development



SDCCD Data Briefings

- OER Use

- ZTC Fill Rates and Outcomes



OER Use at SDCCD Fall 2020 and 2021 Data Briefing 3/24/2022

Context

Textbook affordability is an important yet complex issue facing students nationwide. Course materials costs vary widely by program at SDCCD, with students with Health Sciences and Business majors, as well as African American, Filipino, and Latinx students reporting high impacts of course material costs on their educational experiences (Table 7). Student survey results and course fill rates indicate that students consider the cost of textbooks when making course decisions, and 13% of students indicated their grade was negatively impacted because they couldn't afford course materials.

To reduce course material costs, the Board of Trustees established a goal that 15% of SDCCD courses use Open Education Resources (OER), which are free for students to access electronically and can be reproduced more cheaply than traditional course materials. Further, the Board remains committed to Board Policy 3306, which encourages faculty to choose affordable and necessary course materials and requires that information regarding course materials be made available in a timely manner.



Zero Textbook Cost Section -Fill Rates and Outcomes- Preliminary Data Briefing February 5, 2021

Context:

This preliminary briefing shows the number of Zero Textbook Cost (ZTC) sections at SDCCD's credit colleges and includes three metrics (fill rates, completion rates, and success rates) of ZTC and non-ZTC sections.

The data is as of February 2nd and show results for the Course:

- **Success:** The percentage of students who complete a course with a grade of A, B, C, or P out of total official census enrolments. Tutoring, noncredit, and cancelled classes are excluded.
- **Completion:** The percentage of students who complete a course with a grade of A, B, C, D, F, P, or NP out of total official census enrollments. Tutoring and cancelled classes are excluded.
- **Fill Rate:** The number of enrollments divided by the section's capacity. As long as a student shows being enrolled during one day in enrollment bracket it is included in the number of enrollments for that bracket. Tutoring and cancelled classes are excluded.



OER Use at SDCCD Data Briefing (Fall 2020 and 2021): Key Findings

Key Findings

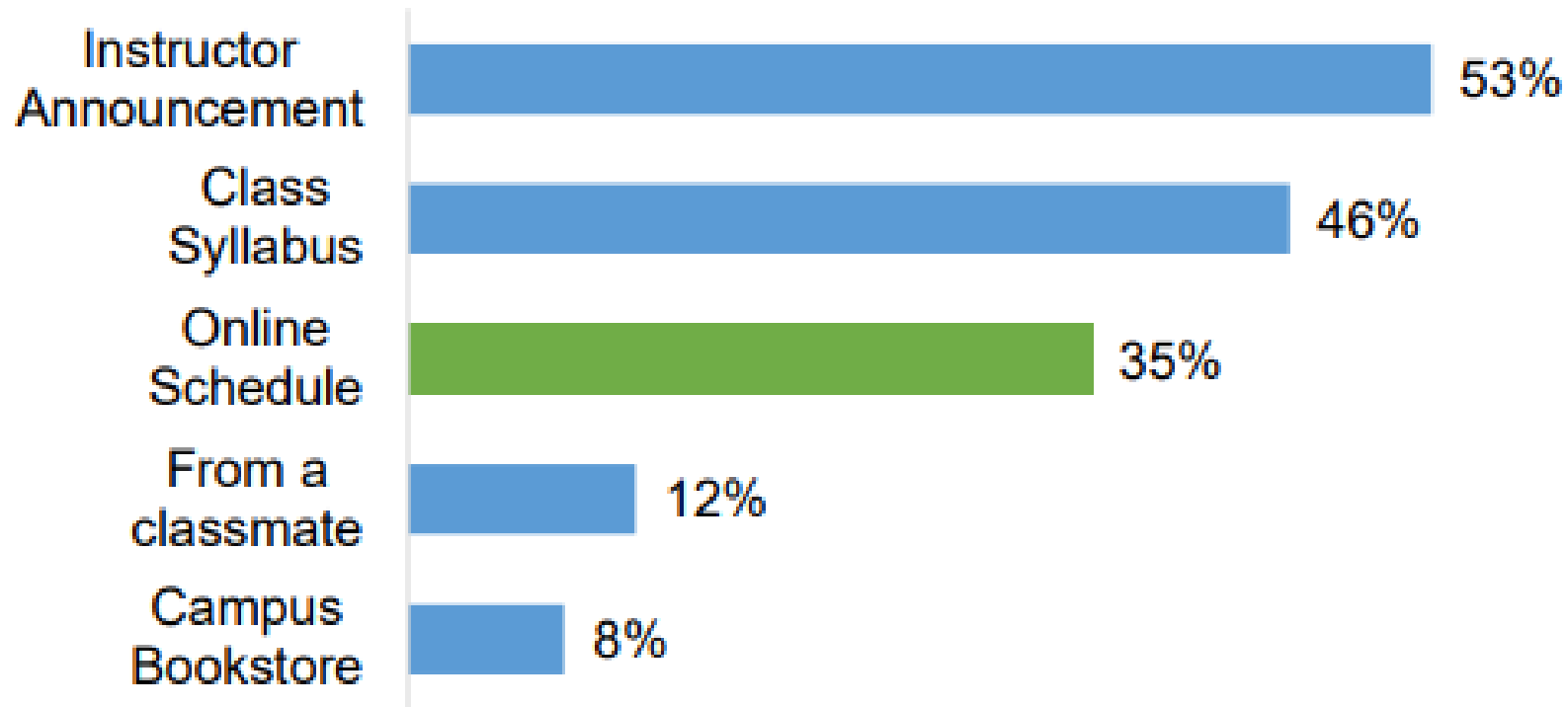
- 1) OER use at the credit colleges, as designated by a course attribute in the registration system, is growing, and accounting for 7% of sections and 9% of enrollments in Fall 2021. Further, survey results suggest that OER use is more prevalent than is indicated by course designations in the registration system, and has increased compared to three years ago.
- 2) While fill rates are slightly higher for OER sections than non-OER sections, there is evidence that improved communication and messaging around OER use in a section may encourage more students to enroll in these courses.
- 3) Significantly higher (more negative) levels of course material cost impact were reported by African American, Filipino, and Latinx students, as well as student with majors in Health Sciences, other career, and Business areas. Students at City and Miramar colleges reported higher levels of course material cost impact than students at Mesa did.

Next Steps

- Increase messaging to students in online orientations and throughout the registration process about the use of OER may further help students navigate from courses with higher material costs.
- It appears likely that the official OER designation is a conservative measure of the use of OER in courses. A more comprehensive survey of faculty (with a larger sample) about OER use may provide data that could inform messaging to students about the credit colleges' attempt to lower costs for students.
- This messaging may be particularly valuable to the groups of students identified in Key Findings 3 who reported higher impacts of course material costs.



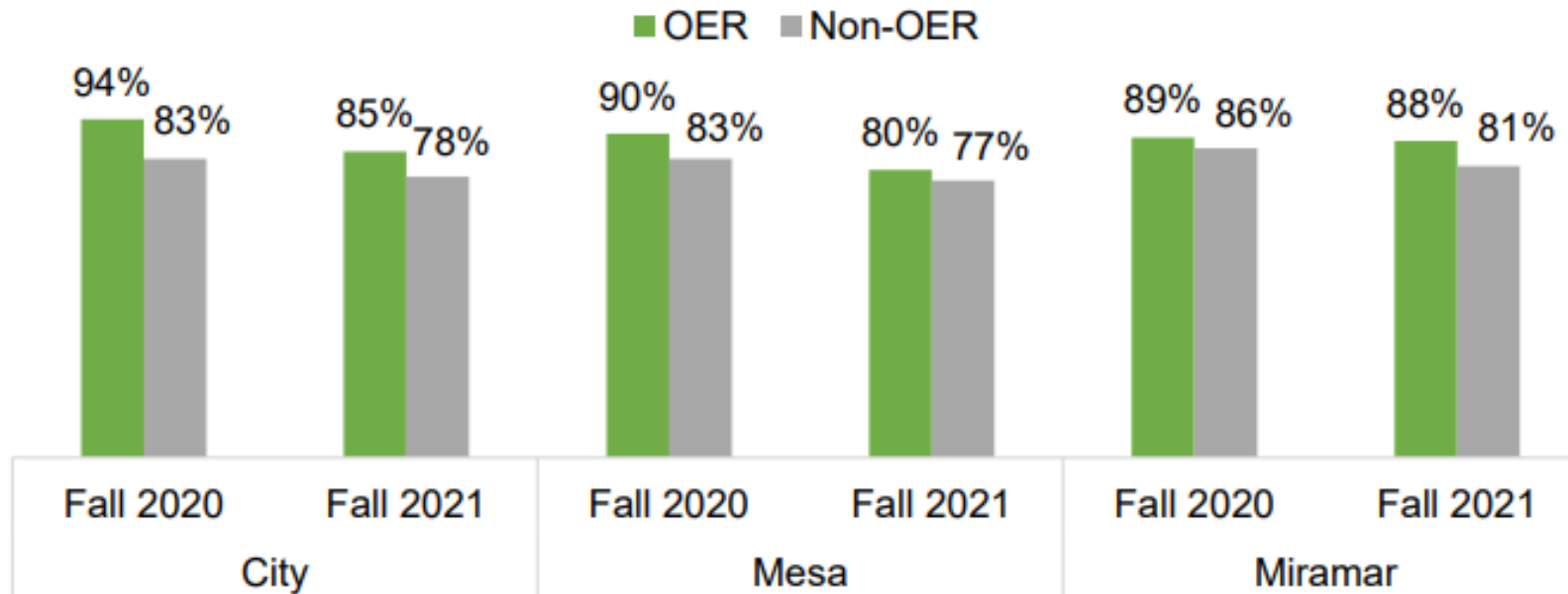
Student Survey: How did you learn your course used OER?



Source: SDCCD Office of Institutional Effectiveness and Research OER Use at SDCCD Fall 2020 and 2021 Data Briefing (March 2022)



ZTC Section-Fill Rates



Note. Excludes sections with a capacity less than 10, tutoring, apprenticeship, in-service/public safety, and non-credit sections. Non-OER sections includes all other sections that did not have an OER marker on the course schedule.

Source: SDCCD Office of Institutional Effectiveness and Research OER Use at SDCCD Fall 2020 and 2021 Data Briefing (March 2022)



ZTC Section-Fill Rates and Outcomes

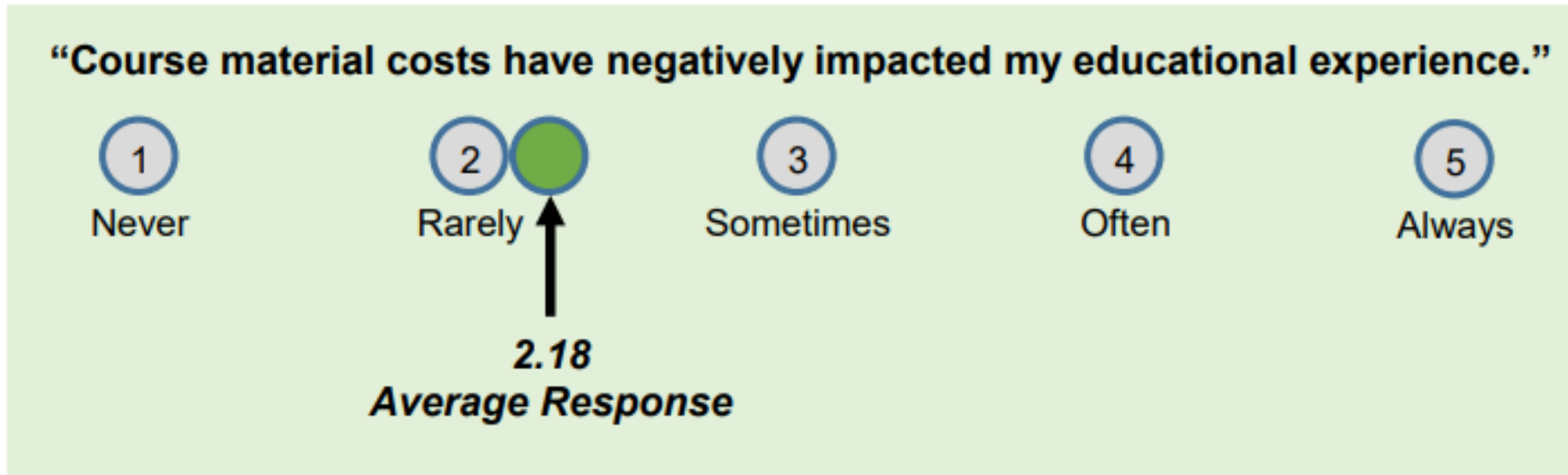
Overall ZTC success rates and Completion rates vary by institution. City College and Mesa College show higher success and completion rates for ZTC sections.

		Enrollments	Success	Completion
City	Non-ZTC	11,182	70%	88%
	ZTC	4,692	72%	89%
	Overall	15,874	70%	88%
Mesa	Non-ZTC	19,975	72%	88%
	ZTC	6,673	78%	90%
	Overall	26,648	74%	89%
Miramar	Non-ZTC	10,959	78%	91%
	ZTC	5,999	75%	90%
	Overall	16,958	77%	91%
All Colleges	Non-ZTC	42,116	73%	89%
	ZTC	17,364	75%	90%
	Overall	59,480	74%	89%

Source: SDCCD Office of Institutional Effectiveness and Research Zero Textbook Cost Section- Fill Rates and Outcomes- Preliminary Data Briefing (February 2021)



Student Survey: Course Material Cost



The groups below reported higher levels of impact on their educational experience than their peer:

- By Ethnicity: African American, Filipino, and Latinx students
- By Major Area: Students with Health Sciences, other Career, and Business majors
- By course enrollment: Students no enrolled in an OER course
- By college: Students at Miramar and City colleges

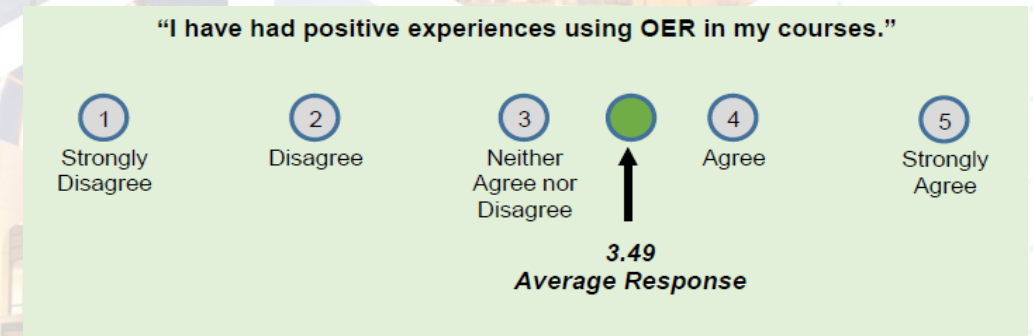
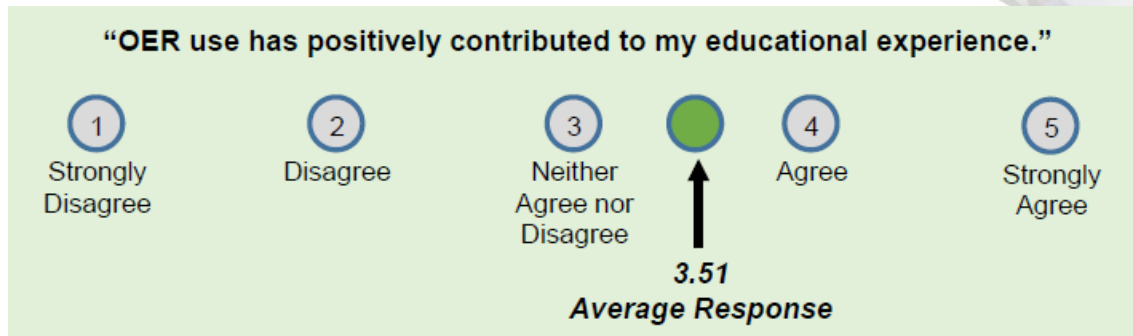
Source: SDCCD Office of Institutional Effectiveness and Research OER Use at SDCCD Fall 2020 and 2021 Data Briefing (March 2022)



Student & Faculty Survey: OER Experience

The student survey included five items for which agreement indicated a positive perception of OER use. The average response across all respondents was 3.51 out of 5, indicating a moderate level of agreement. This average was higher for the respondents enrolled in a section designated by the course schedule as using OER than for the respondents who were not.

The faculty survey included six items for which agreement indicated a positive perception of OER use. The average response across all respondents was 3.49 out of 5, indicating a moderate level of agreement. This average was higher for the respondents taught in a section designated by the course schedule as using OER than for respondents who were not.



Source: SDCCD Office of Institutional Effectiveness and Research OER Use at SDCCD Fall 2020 and 2021 Data Briefing (March 2022)

Using ZTC Data

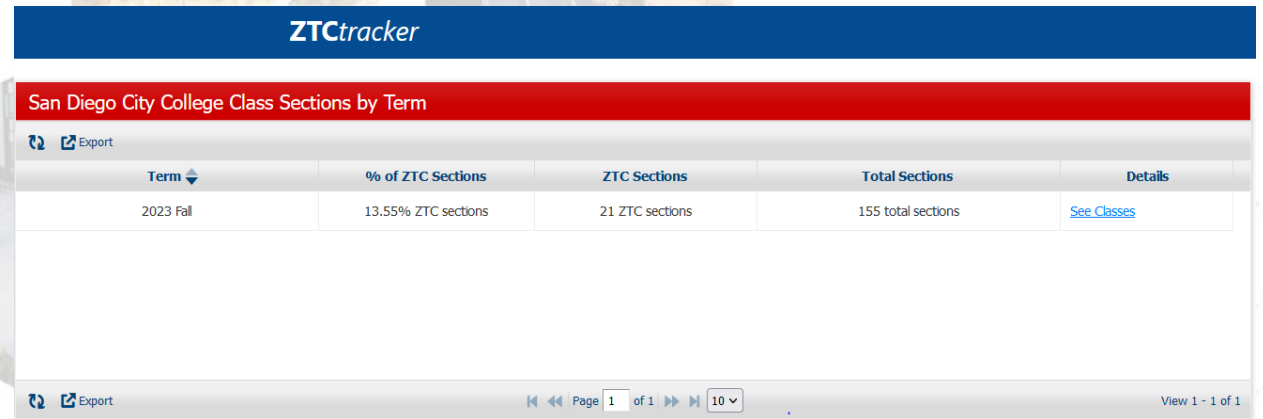
- Identifying Opportunities
- Faculty Support
- Students Support
- Advocacy & Funding (e.g., grants)

And...Recognizing OER/ZTC Work and Success!



ZTC Tracker: Class Section Data

- Class Sections by Term
 - Percentage of ZTC Sections
 - Number of ZTC Sections
 - Total Sections



The screenshot displays the ZTC Tracker interface. At the top, there is a blue header with the text "ZTCtracker". Below this is a red header with the text "San Diego City College Class Sections by Term". The main content area features a table with the following data:

Term	% of ZTC Sections	ZTC Sections	Total Sections	Details
2023 Fall	13.55% ZTC sections	21 ZTC sections	155 total sections	See Classes

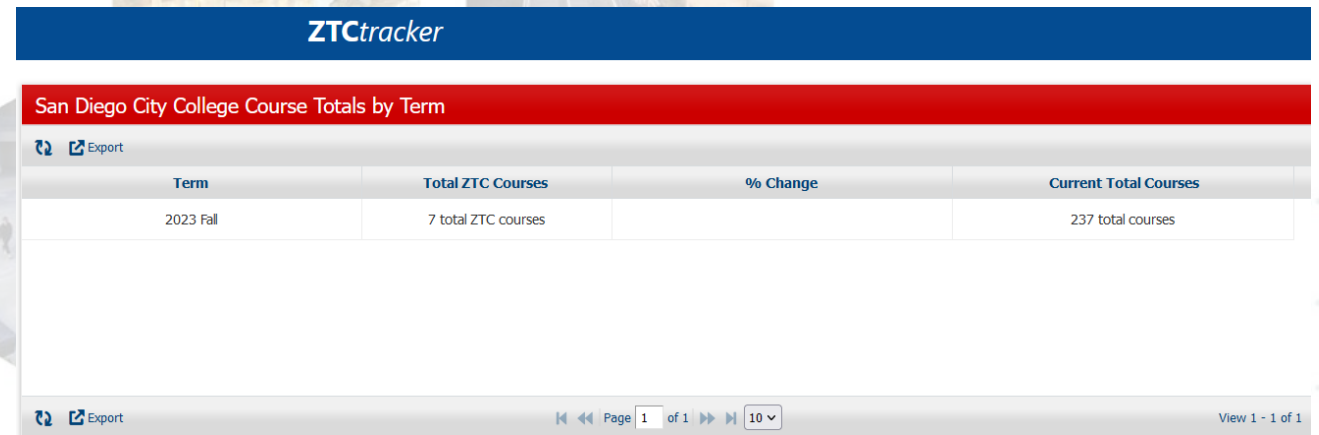
At the bottom of the table, there is a navigation bar with "Page 1 of 1" and "View 1 - 1 of 1".

Sample City College ZTC Data, <https://bit.ly/49PYzV>



ZTC Tracker: Course Data

- Courses by Term
 - Total ZTC Courses
 - Percentage Change
 - Total Courses



The screenshot displays the ZTC Tracker interface. At the top, there is a blue header with the text "ZTCtracker". Below this is a red header with the text "San Diego City College Course Totals by Term". Underneath the red header is a grey bar with a refresh icon and the text "Export". The main content is a table with the following columns: "Term", "Total ZTC Courses", "% Change", and "Current Total Courses". The table contains one row of data for the "2023 Fall" term, showing "7 total ZTC courses" and "237 total courses". At the bottom of the table, there is another grey bar with a refresh icon, the text "Export", and navigation controls including "Page 1 of 1" and "10" with a dropdown arrow. On the far right, it says "View 1 - 1 of 1".

Term	Total ZTC Courses	% Change	Current Total Courses
2023 Fall	7 total ZTC courses		237 total courses

Sample City College ZTC Data, <https://bit.ly/49PYzV>



ZTC Tracker: Program Data

- Program Awards
 - Percentage ZTC
 - Total ZTC Course Units
 - Total Units
 - Units to ZTC

ZTCtracker

A-Z PROGRAMS: Degrees, Certificates, or more

🔄 Export

Reports	Program	Award	Required: % of ZTC	Required: Total ZTC Course Units	Required: Total Units	Required: Units to ZTC
	Search...					
See Program	Advanced Air Conditioning and Direct Digital Control	C.A.			33.00	
See Program	Air Conditioning, Heating, and Advanced Refrigeration	C.A.			31.00	
See Program	Alcohol and Other Drug Studies	C.A.	15.79	6.00	37.00	31
See Program	Allied Health Track (Biology)	A.S.			21.00	
See Program	Applied Mathematics	A.A.			23.00	
See Program	Archaeology	C.A.	18.75	3.00	16.00	13
See Program	Basic HVAC/R Mechanical Systems Installation	C.A.			19.00	
See Program	Business Administration	A.S.	8.33	3.00	36.00	33
See Program	C++	C.A.			16.00	



Sample City College ZTC Data, <https://bit.ly/49PYIzV>

SDCCD OER Resources

- District OER Resources:
 - http://sdccdoer.net/oer_sdccd/
 - <http://sdccdolvid.org/>
- OER Week, <https://bit.ly/47IQaiv>
- San Diego City College OER, <https://library.sdccity.edu/oer>
- San Diego Mesa College OER, <https://sdmesa.libguides.com/OER>
- San Diego Miramar College OER, <https://sdmiramar.libguides.com/oer>



ASCCC OER Resources

- ASCCC Open Educational Resources Initiative, <https://asccc-oeri.org/resources/>
 - ASCCC OERI Inclusion, Diversity, Equity, and Anti-Racism Framework, <https://asccc-oeri.org/asccc-oeri-inclusion-diversity-equity-and-anti-racism-idea-audit-framework/>
 - ASCCC OERI Student Impact Toolkit, <https://asccc-oeri.org/measuring-student-impact-capturing-student-voices-in-oer-ztc/>
 - Articulation, Curriculum, and Open Educational Resources, <https://asccc-oeri.org/articulation-curriculum-and-open-educational-resources/>

