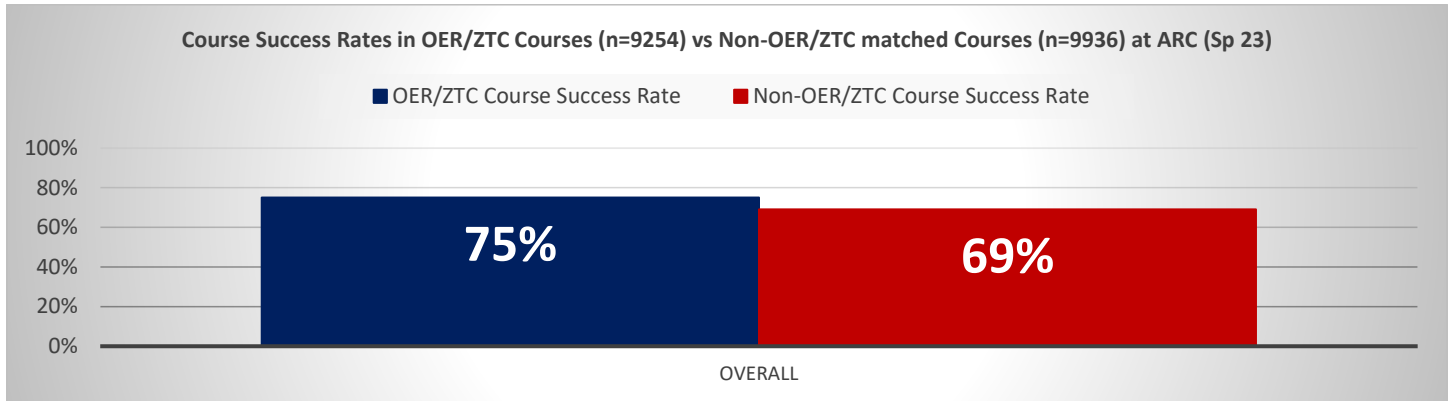# Course Success Rates in OER/ZTC vs Non-OER/ZTC *matched* Courses at American River College – Spring 2023
Overall, then disaggregated by Race/Ethnicity, Gender, and Income/Poverty Level
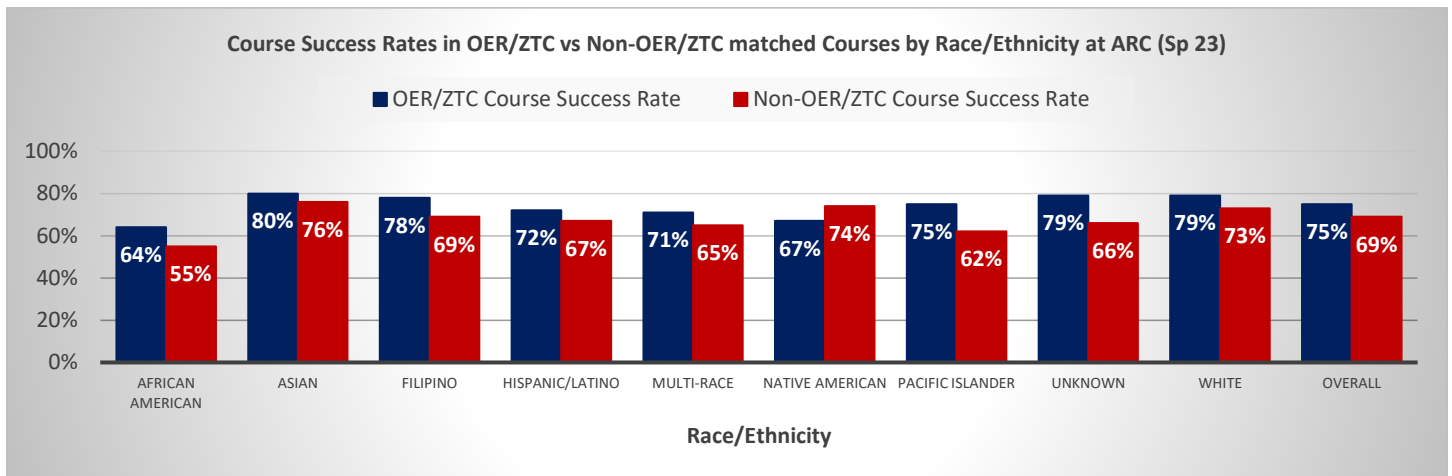
Overall

Course success rates were higher in OER/ZTC courses (75%) vs Non-OER/ZTC *matched* courses (69%) in Spring 23[1].

Course Success Rates in OER/ZTC Courses (n=9254) vs Non-OER/ZTC matched Courses (n=9936) at ARC (Sp 23)

Race/Ethnicity

Course success rates were higher in OER/ZTC courses vs Non-OER/ZTC *matched* courses for nearly every race/ethnicity group in Spring 23 (except for Native American ARC students). Notably, the margin of the OER/ZTC success rate advantage for African American ARC students was +9 (64% vs 55%), greater than the +6 advantage overall (75% vs 69%).

Course Success Rates in OER/ZTC vs Non-OER/ZTC matched Courses by Race/Ethnicity at ARC (Sp 23)

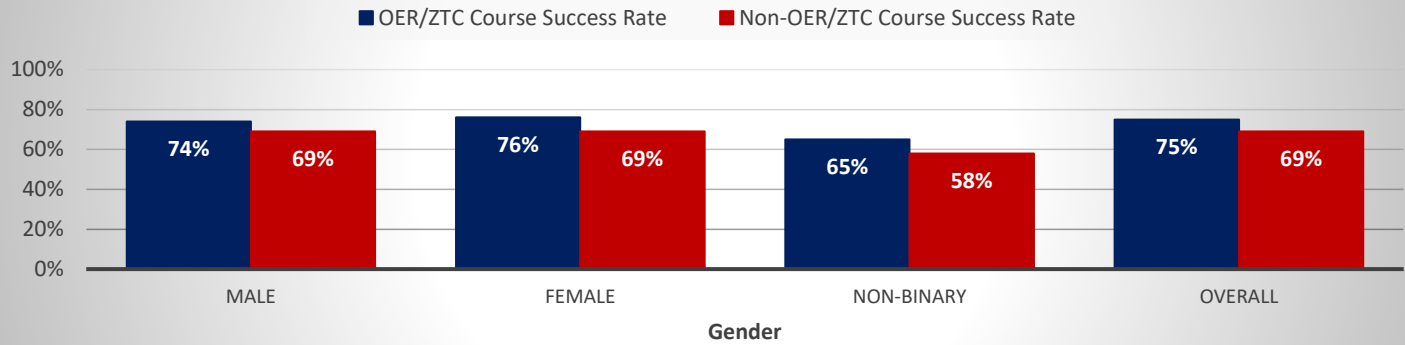| Race/Ethnicity	African American	Asian	Filipino	Hispanic/ Latino	Multi-Race	Native American	Pacific Islander	Unknown	White	Overall
OER/ZTC Success Rate (Counts)	64% (n=790)	80% (n=1066)	78% (n=186)	72% (n=2510)	71% (n=698)	67% (n=46)	75% (n=53)	79% (n=163)	79% (n=3725)	75% (n=9254)
Non-OER/ZTC Success Rate (Counts)	55% (n=993)	76% (n=1276)	69% (n=241)	67% (n=2771)	65% (n=762)	74% (n=42)	62% (n=84)	66% (n=143)	73% (n=3615)	69% (n=9936)

Only groups where n ≥ 10 are displayed.

Gender

Course success rates were higher in OER/ZTC courses vs Non-OER/ZTC *matched* courses for all genders in Spring 23.

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[1] Course Success Rate is the percentage of A, B, C, Credit, and Pass grade notations divided by all grade notations. OER/ZTC was defined as courses with MIS XB 12 OER Code = A (No textbook/instr. materials required) or Code = B (Free textbook/instr. materials provided by OER). Code A was included after consultation with ARC OER leaders. The Non-OER/ZTC control courses with MIS XB 12 OER Code = Y (Does not meet no/low-cost textbook/instr. materials criteria) included only those courses matched to a corresponding OER/ZTC course with Code A or B (i.e., if a course had no sections with code A or code B, then it was excluded from the analysis). n's represent enrollment counts. *Source:* ARC Research Database

Course Success Rates in OER/ZTC vs Non-OER/ZTC matched Courses by Gender at ARC (Sp 23)
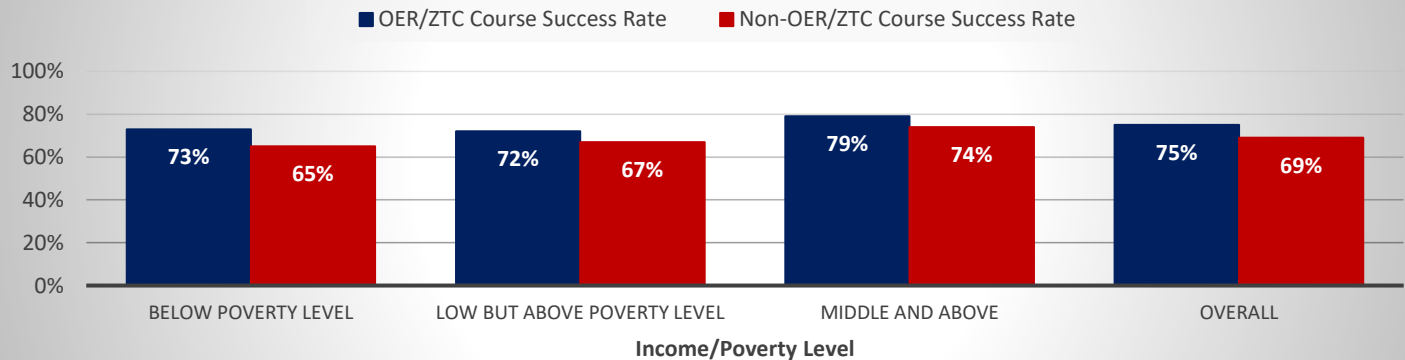
■ OER/ZTC Course Success Rate   ■ Non-OER/ZTC Course Success Rate

	MALE		FEMALE		NON-BINARY		OVERALL	
	74%	69%	76%	69%	65%	58%	75%	69%

Gender

Gender	Male	Female	Non-Binary	Overall
OER/ZTC Success Rate (Counts)	74% (n=3654)	76% (n=5293)	65% (n=124)	75% (n=9254)
Non-OER/ZTC Success Rate (Counts)	69% (n=4012)	69% (n=5695)	58% (n=111)	69% (n=9936)

Excludes Unknown gender.

Income/Poverty Level

Course success rates were higher in OER/ZTC courses vs Non-OER/ZTC *matched* courses for all income/poverty levels in Spring 23. Notably, the margin of the OER/ZTC success rate advantage was greatest for the lowest income/poverty level group (73% vs 65%), specifically, an 8-point advantage for ARC students identified as Below Poverty Level[2].

Course Success Rates in OER/ZTC vs Non-OER/ZTC matched Courses by Income/Poverty Level at ARC (Sp 23)

■ OER/ZTC Course Success Rate   ■ Non-OER/ZTC Course Success Rate

	BELOW POVERTY LEVEL		LOW BUT ABOVE POVERTY LEVEL		MIDDLE AND ABOVE		OVERALL	
	73%	65%	72%	67%	79%	74%	75%	69%

Income/Poverty Level

Income/Poverty Level	Below Poverty Level	Low But Above Poverty Level	Middle and Above	Overall
OER/ZTC Success Rate (Counts)	73% (n=2827)	72% (n=2081)	79% (n=3160)	75% (n=9254)
Non-OER/ZTC Success Rate (Counts)	65% (n=3060)	67% (n=2361)	74% (n=3372)	69% (n=9936)

Excludes Unknown income/poverty level.

Limitations and Conclusions

OER/ZTC and Non-OER/ZTC course sections may differ for reasons beyond the use of OER/ZTC materials (e.g., the instructor, grading policies, teaching philosophies, assessment methods, etc.,). As the current analysis is correlational, *not causal*, any of these reasons may represent a confounding variable (i.e., may be the true and/or contributing cause) underlying the observed differences in course success rates associated with the use of OER/ZTC materials.

Bearing in mind this important limitation, there are clear and broad indications of an *association* between OER/ZTC courses and higher success rates for students of all genders, income levels, and nearly all race/ethnicity groups at ARC.

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2 Poverty levels are determined using a combination of household income and household size and are calculated according to external guidelines set by HHS.