

## STUDENT SUCCESS AND EQUITY PROJECT EVALUATION 2017-18

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**Project Name:** The Mathematics, Engineering, Science Achievement (MESA) Program



### Project Outcomes

1. Describe the project, including activities utilized and intended outcomes.

<b>Which Student Equity Indicator(s) is your project expecting to impact?</b>	<input type="radio"/> Access <input type="radio"/> ESL and Basic Skills <input checked="" type="checkbox"/> Transfer	<input checked="" type="checkbox"/> Course Completion <input type="radio"/> Degree / Cert Completion
<b>Which of the Integrated Student Success Goal(s) is the primary focus of your project?</b>	<input type="radio"/> Invited and Welcomed <input type="radio"/> Engaged and Empowered <input checked="" type="checkbox"/> Guided and Supported <input type="radio"/> Succeeding and Completing	

Funded through the California Community Colleges Chancellor’s Office, with programmatic standards established by the MESA Statewide Office, the MESA Community College Program at Santa Rosa Junior Colleges serves an average of 150 STEM transfer students each year. With academic advising, career mentoring, academic assistance, drop-in tutoring, small group study sessions, a local industry advisory board, and transfer counseling, MESA creates an academic-based community for STEM students. The fundamental mission of the MESA Community College Program is to increase the number of students who prepare for, and enter into, professions requiring a bachelor’s degree in a STEM discipline.

In order to increase the number of students transferring to a four-year institution with a calculus-based STEM major, MESA utilizes a variety of activities to build community, support academic success, and prepare students for STEM careers. These activities and intended outcomes are detailed below. The performance evidence is derived from: 1) MESA’s end-of-year student program involvement student survey; (88% completion rate); (2) SRJC OIR SE Survey data (3) SRJC OIR SE academic and demographic outcome reports.

**Activity:** MESA Student Study Center

**Intended Outcome:** The MESA Student Study Center creates a community connection among MESA students, STEM faculty and staff. Students identify with a community of like-minded college students. The MESA Student Study Center is open to all SRJC students.

**Performance Evidence:** Based on Student Equity survey data, a higher percentage of MESA students feel guided and supported than general District students (Appendix: Article III). Center hour usage demonstrates (Appendix: Article I) MESA students spent over 11,400 combined hours in the Center during academic year 2017-18.

**Activity:** Academic Support Services

**Intended Outcome:** Academic peer tutoring, self-directed study groups, small group webinars, a textbook resource library, and a computer lab with free printing, contribute to the academic success of MESA and STEM students. Provided in the MESA Center, these services enable students to better understand and master course content.

**Performance Evidence:** MESA Student Equity & Achievement Data, 2017-18 Academic Outcomes (Appendix: Article III) shows MESA students benefiting from: (1) an 80% course success rate in comparison to the District average of 74.8%; (2) a course retention rate of 89.1% and; (3) a fall to spring persistence rate of 95.7%. When

surveyed, 75% of MESA students evaluated MESA peer drop-in tutoring as very or extremely valuable. Additionally, 86% stated the drop-in assistance aligned with their coursework needs.

**Activity:** Transfer Assistance and Advising

**Intended Outcome:** Through dedicated counseling services, MESA sponsored college visit field trips, and alumni and faculty advising, MESA students are able to define the eligibility requirements for their transfer program. MESA students strive to create an individual development plan that works in concert with their long-term educational plan.

**Performance Evidence:** When surveyed, 95% of MESA students agreed or strongly agreed the dedicated counseling services in MESA worked with their schedule. 93% of MESA students agreed or strongly agreed they felt more confident making decisions with the help from MESA counseling.

**Activity:** Career Preview and Leadership Development

**Intended Outcome:** Through guest speaker presentations, conference participation, workshops to advance workplace skills, and exposure to internships and fellowships, MESA students role-play their future STEM profession, seeing first-hand how a STEM interest manifests first as a transfer major and later as a career path.

**Performance Evidence:** When surveyed, 97% strongly agreed they received timely messages regarding MESA and SRJC events and offerings. Specifically, 65% reported participating in a college or industry site visit; 63% attended a guest speaker presentation or STEM conference and 45% reported volunteering in a STEM discipline.

2. Reflect on the data provided by the Office of Institutional Research.

**a. Based on your project's student population data, what student groups is your project serving?**

**Please provide a brief explanation for these results.**

Based on MESA's student population data (Appendix, Articles I, II), the program participation numbers for Latinos is nearly twice that of the District; 91% of MESA students identify as neither parent possessing a bachelor's degree; 92% receive need-based financial assistance. The MESA Program has a higher number in comparison to the District of veteran students and twice as many students who identify as Asian or with disabilities. MESA enrollment includes students identifying as African American, Multi-Ethnic, and as foster youth.

**b. Based on the Student Equity Indicator data, did your project participants have better academic outcomes as compared to the District averages? Which outcomes and why?**

Yes. MESA participants demonstrated better academic outcomes when compared to District averages in the following categories (Appendix, Article III):

- Above district average in Course Success
- Above district average in Course Retention
- Approximately equal to district average in Course GPA
- Well above district average in fall to spring persistence

**c. Based on the Student Survey data, did your project impact the Integrated Student Success goals? Which goal area and why?**

Yes. Because of MESA's overlapping academic support, counseling, and career development services, student outcome comparisons show that students in MESA performed better on the Integrated Student Success goals:

- Guided and Supported
- Engaged and Empowered.

3. Overall, how has your project helped SRJC make progress towards having equitable outcomes and achieving our Integrated Student Success goals?

MESA students present with a goal of transferring and earning a bachelor’s degree in a STEM discipline. MESA assists (guided and supported) students in order to achieve this multi-step goal: a) MESA provides strong academic advising and assistance, which supports progress in having equitable outcomes in course success (succeeding), for only if students succeed in completing their major preparatory courses are they competitive to transfer to a 4-year institution with a STEM major; b) MESA supports equitable transfer completion (completing), sending more students to universities in the highly competitive UC system than the District, even though MESA serves proportionally a greater number of disproportionately impacted students. The overarching impact of MESA’s activities is reflected in our transfer cohort outcome. (Appendix, Article I – Transfer Destinations)

	<b>MESA Students 2017 Cohort: n = 128</b>	<b>MESA Students 2018 Cohort: n = 142</b>	<b>SRJC Transfer Students *</b>
<b>University of CA</b>	<b>54%</b>	<b>41%</b>	<b>16%</b>
<b>CA State University</b>	<b>32%</b>	<b>49%</b>	<b>60%</b>
<b>Out of State &amp; Private</b>	<b>14%</b>	<b>10%</b>	<b>25%</b>
<b>Total</b>	<b>28</b>	<b>37</b>	<b>1,448</b>

\* SRJC Transfer Students 2016-2017: SRJC Office of Institutional Research

**Evaluation and Project Improvement**

4. **Is your project utilizing other methods to receive feedback or evaluate your project? If yes, please describe.**

Twice a year at the end of the fall and spring semesters, MESA surveys students enrolled in the program. The May MESA Program Involvement Survey includes questions vetted by OIR and designed to solicit qualitative feedback on specific MESA services. Feedback from the May 2018 survey is reflected in the performance evidence cited under the activities and intended outcomes sections of this evaluation.

5. **What is your long term vision for the project?**

The long term vision for the project is to increase the number of students admitted to MESA; currently MESA has a wait list of 70 eligible, SRJC registered students. With current Chancellor’s Office funding, the MCCP grant limits the number of MESA students to 100-150 per year, unless the District provides additional general or categorical funds. The current CCCC cap means MESA can admit only 30-40 new students each year; hence the program’s large wait list. Ideally, the District will leverage MESA, proactively seeking out related STEM and student equity funds in order to create a greater, more inclusive STEM Student Success Center.

6. **What can the Integrated Student Success Committee do to support your project?**

Data from OIR supplies the MESA program with year-end aggregated student information. However, MESA needs semester student specific outcome reports in order to capture at-risk indicators and intervene before a student feels helpless to complete the rigors of a STEM transfer program. Currently, MESA staff must look up each student’s academic record in SIS, identify the relevant information, transfer the details to a program specific reporting tool, and devise an intervention. With assistance from the college’s OIR and IT departments, the first three steps should be automated into a standard report made available to MESA support staff during the winter and summer intersessions.

# APPENDIX

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## Student Success and Equity Project Evaluation 2017-18

- Article I: MESA 2017-18 Annual Report
  - a) Student Support Success Measures
  - b) Student Academic Success Measures
  - c) Transfer Destinations
  
- Article II: SRJC OIR MESA Student Up-Date 2017-18
  - a) Table 1 – Demographics
  - b) Table 2 – General Academic Measures
  - c) Table 3 – Measures by STEM Department
  
- Article III: ISSC Pillars and Student Climate Survey Reports
  - a) Pillars Scores from Student Survey
  - b) 2017-2018 Academic Outcomes



## STUDENT SUPPORT SUCCESS MEASURES



# 83.8%

Of the 2018 transferring MESA students, 83.8% completed their educational goal to transfer in less than 6 years.

According to the 2018 CCCCO Student Success Scorecard, in California 48.2% of degree, certificate, or transfer seeking students completed their educational goal within 6 years.

**2,500**  
Students Served  
Since 2000  
142 in 2017-2018

**11,480**  
Center Hours  
Of Usage

**91%**  
Are First  
Generation  
College Students

**92%**  
Receive  
Financial Aid

**290**  
MESA Counseling  
Appointments  
Attended

## STUDENT ACADEMIC SUCCESS MEASURES

**80%**  
STEM Course  
Completion

**89%**  
STEM Course  
Retention

**95%**  
Enrollment  
Persistence

**65%**  
2018 MESA Transfer Students  
Also Earned an Associates Degree

## TRANSFER DESTINATIONS

	MESA Transfer Students 2017 Cohort: n=128	MESA Transfer Students 2018 Cohort: n=142	SRJC Transfer Students* *SRJC Transfer Students 2016-17 SRJC Office of Institutional Research
University of California	54%	41%	16%
California State University	32%	49%	60%
Out of State & Private	14%	10%	25%
<b>Total # of Students</b>	<b>28</b>	<b>37</b>	<b>1,448</b>

The Sonoma County Junior College District does not discriminate on the basis of race, religious creed, color, national origin, ancestry, ethnic group identification, physical disability, mental disability, medical condition, genetic condition, marital status, sex, gender, gender identity, gender expression, genetic information or sexual orientation in any of its policies, procedures or practices; nor does the District discriminate against any employees or applicants for employment on the basis of their age. This non-discrimination policy covers admission, access and treatment in District programs and activities—including but not limited to academic admissions, financial aid, educational services and athletics—and application for District employment.

Data calculated from MESA Enrollment Student Applications; MESA Transfer Cohort Report; SRJC SIS Tables: [SR\_STUDENTS] [SR\_STUDENT\_TERMS] [PRPP600\_STUDENTS] [SR\_APPLICATIONS] [SR\_ENROLLMENTS] [SR\_SECTIONS] [SR\_COURSE\_VERSIONS];

MESA STUDENT UPDATE 2017-18

Table 1: Demographics

MESA PROGRAM STUDENT DEMOGRAPHICS									
		Count	Gender		Ethnicity				
			Female	Male	African	Asian	Latino	Multi-	White
MESA STUDENTS									
	2015-16	122	36.0%	63.9%	4.1%	9.8%	47.5%	7.4%	30.3%
	2016-17	108	34.3%	65.7%	2.8%	13.9%	62.1%	2.8%	18.5%
	2017-18	139	31.7%	68.3%	1.4%	11.5%	61.9%	2.2%	23.0%
Total SRJC									
	2015-16		54.4%	44.2%	2.6%	4.8%	31.8%	5.7%	53.7%
	2016-17		53.9%	44.2%	2.7%	5.0%	32.8%	5.9%	51.9%
	2017-18		54.2%	43.5%	2.4%	4.8%	37.5%	5.5%	47.8%

Table 2: General Academic Measures

MESA PROGRAM GENERAL ACADEMIC SUCCESS MEASURES								
		FALL			Persistence (Enrolled in following Spring)	SPRING		
		Course Outcomes				Course Outcomes		
MESA STUDENTS		Completion	Retention	GPA		Completion	Retention	GPA
	2015-16	77.8%	87.4%	3.00	91.4%	78.8%	88.6%	2.94
	2016-17	74.4%	84.9%	2.76	91.4%	77.8%	88.2%	2.89
	2017-18	85.3%	92.6%	3.06	95.0%	74.0%	85.4%	2.87
Total SRJC								
	2015-16	71.9%	86.2%	2.81	68.4%	73.8%	86.5%	2.87
	2016-17	72.9%	86.6%	2.82	67.9%	74.3%	86.7%	2.87
	2017-18	75.2%	87.9%	2.90	48.4%	74.3%	86.3%	2.90

Table 3: Measure by STEM Department

MESA PROGRAM ACADEMIC SUCCESS MEASURES by STEM DEPARTMENT													
		CHEM			ENGR			MATH			PHYS		
		Course Outcomes			Course Outcomes			Course Outcomes			Course Outcomes		
MESA STUDENTS		Completion	Retention	GPA	Completion	Retention	GPA	Completion	Retention	GPA	Completion	Retention	GPA
	2015-16	83.9%	89.3%	3.01	89.6%	94.8%	3.35	74.6%	86.5%	2.66	89.8%	92.1%	3.27
	2016-17	85.4%	89.0%	3.01	86.3%	94.1%	2.83	60.6%	79.4%	2.17	87.1%	91.4%	3.14
	2017-18	77.0%	85.1%	2.84	85.3%	93.3%	2.94	66.0%	84.5%	2.42	77.6%	84.7%	2.75
Total SRJC													
	2015-16	74.6%	86.0%	2.67	81.2%	88.5%	3.20	57.6%	79.1%	2.21	80.7%	87.4%	3.04
	2016-17	77.9%	81.4%	2.82	72.9%	81.4%	2.89	58.8%	79.9%	2.20	79.8%	85.6%	3.08
	2017-18	75.3%	85.4%	2.76	77.5%	87.6%	3.11	61.8%	82.2%	2.27	81.8%	88.4%	3.11

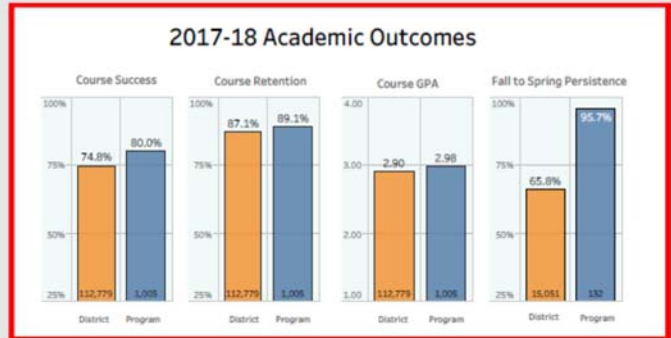
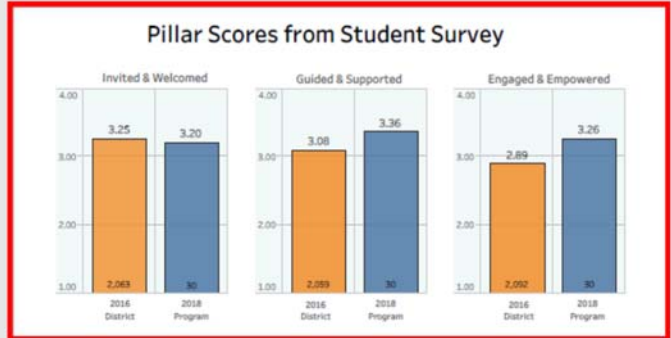
Data obtained from SRJC SIS Tables: [SR\_STUDENTS][SR\_STUDENT\_TERMS][PRPP600\_STUDENTS][SR\_APPLICATIONS][SR\_ENROLLMENTS][SR\_SECTIONS][SR\_COURSE\_VERSIONS][SR\_BOGW\_INFO][MIS\_STUDENT\_FIN\_AID\_AWARD]

Article III: ISSC Pillars and Student Climate Survey

Student Equity & Achievement Data:  
**MESA (All): FA17 & SP18**

Program	
MESA (All)	
Gender	Ethnicity
All	All
First Gen	Financial Need
All	All
DSPS	Veteran
All	All
Foster Youth	Homeless
All	All
LGBTQ	FT/PT Status
All	All
Term	Matric Status
FA17 & SP18	All

Program Participation Rate		
	District	Program
African American	1,088 2.4%	4 1.5%
Asian	2,289 5.0%	32 11.8%
Latino	17,346 37.7%	167 61.6%
Multi-Ethnicity	2,571 5.6%	6 2.2%
Native American	279 0.6%	0 0.0%
Other	421 0.9%	0 0.0%
Pacific Islander	164 0.4%	0 0.0%
White	21,824 47.5%	62 22.9%
First Gen Student	10,500 23.7%	119 43.9%
DSPS	4,311 9.4%	54 19.9%
Veteran	1,712 3.7%	11 4.1%
Foster Youth	775 1.7%	4 1.5%
Homeless	187 0.4%	0 0.0%
LGBTQ	1,237 2.7%	3 1.1%



**Notes:**

Selectable Filters (upper left): Specify the groups to compare on the **Program Participation Rate** table and the **Pillar Score Survey** and **Academic Outcomes** charts - between the district population and selected program of interest.

Program Participation Rate: Compares individual headcount and proportion (%) of district population with the selected program of interest (unduplicated by term).

Pillar Scores from Survey: Measure to assess how **Invited & Welcomed**, **Guided & Supported**, and **Engaged & Empowered** students feel at SRJC. A subsection of questions from the 2016 SRJC Student Climate Survey, that touch on these topics, were administered to program participants in May 2018.

2017-18 Academic Outcomes: Success, Retention, and GPA comparisons between district average and program of interest - individual students are duplicated by enrollments. **Fall to Spring Persistence Rate** is based on unduplicated enrollments.

**Terms:**

Unduplicated by term: A individual student is represented once per term, yet may be counted twice for the academic year if enrolled in both terms (select Term filter to disaggregate further).

Course Success: Passing grade of "C" or better.

Course Retention: Any non "W" grade.

Spring to Fall Persistence: Rate of students enrolled in Fall 2017 that continue and enroll in Spring 2018.