Santa Rosa Junior College
Program Resource Planning Process

MESA 2014

1.1a Mission

Mathematics, Engineering, Science Achievement (MESA) **Community College Program** Mission: To serve educationally and economically disadvanataged students, with an emphasis on students from groups with low rates of college eligibility, so they can excel in math and science and attain STEM degrees from four-year institutions. MESA is administered by the University of California, MESA Statewide Office (MESA SWO), the California Community Colleges Chancellor's Office (CCCCO) and partner K-12 districts throughout California.

Mathematics, Engineering, Science Achievement - **MESA Schools Program** Mission: To develop in disadvantaged students, especially those from underrepresented groups, the motivation, knowledge and skills that will enhance their interest and prepare them for professions requiring STEM degrees.

1.1b Mission Alignment

The MESA Community College Program's mission aligns with the District's Mission Statement and Supportive Statements by:

- Providing lower division academic support services to support transfer in STEM disciplines
- Creating STEM-specific student support services to improve student access, retention and persistence
- Supporting career and technical education in order to facilitate economic development and job growth
- Challenging students to participate fully in the learning process, balancing course content mastery with relevant pre-professional work experience
- Supporting awareness and respect to ethnic, cultural, gender, age, and socioeconomic diversity in academic and work settings.

The MESA CCP mission aligns with the 2013-2014 College Initiatives in the following ways:

- By proactively engaging in community outreach consistent with the intent of better serving basic skills students and immigrant populations
- By providing enhanced academic support services and community-building activities in order to increase basic skills student persistence and success
- By enhancing career and technical education to better promote local, state and national economic development

- By making possible the operation of a Sonoma County MESA Schools Program (MSP) in order to strategically increase student enrollment, improve K-16 articulation and to improve access and academic success for ELL students
- By increasing student success and academic achievement in order to support the District's enrollment management and retention efforts, especially as related to the changing demographics of Sonoma County and the District's service area.

1.1c Description

Established over 42 years ago, the MESA programs serve students seeking careers in math, science and engineering fields. Historically, MESA has demonstrated a strong connection between student success in STEM disciplines and campus engagement in major specific enrichment. MESA creates and provides a strong community of support for STEM students.

At Santa Rosa Junior College, MESA is comprised of two components: the MESA Community College Program, established in 1999, and the MESA Schools Program, established in 2006.

The MESA Community College Program is a dynamic academic support program for transfer students pursuing a baccalaureate degree in a science, technology, engineering, or mathematics (STEM) field. The program creates an academic-based student center for STEM majors and provides academic support services and preprofessional work experience. The fundamental mission of the MESA Community College Program is to increase the number of students that prepare for and enter into professions requiring a STEM degree.

The MESA Schools Program provides academic and career development services to middle school and high school students so they will succeed in math and science and be motivated to earn a college degree in a STEM field. With an emphasis on STEM fields, the MESA Schools Program perpetuates a college-going culture within the schools it serves.

The MESA Community College Program and MESA Schools Program are closely aligned to assure a streamlined system of services. The student service components of MESA include:

- Community building through a MESA Student Study Center & MSP Classes
- Academic support, peer tutoring, mentoring
- Persistence towards earning a high school diploma
- Assistance in matriculating from high school to SRJC
- Assistance in the transferring from SRJC to a 4-year college or university
- Counseling and academic course planning
- Career preview and professional development opportunities through hands-on science competitions (MESA Day), guess speaker presentations and internships and fellowships

The Santa Rosa Junior College MESA Program is a collaborative effort supported by the MESA Statewide Office at the University of California Office of the President, the California

Community Colleges Chancellor's Office, local industry sponsors, and the Sonoma County Junior College District.

1.1d Hours of Office Operation and Service by Location

The MESA Student Study Center, located in the Lawrence A. Bertolini Student Services Center, operates public service hours Monday through Thursday from 8:30 AM to 5:00 PM and Friday from 8:30 AM to 12:30 PM.

In addition to center hours, the program provides evening, Saturday, and weekend service as needed. The MESA CCP manager supervises all after-hour, weekend activities and fieldtrip travel associated with the MESA Community College Program. The MESA Student Study Center is supervised by the Coordinator, MESA Programs (management) and a part-time STNC, MESA Center Assistant.

1.2 Program/Unit Context and Environmental Scan

Environmental Scan

Inclusive of the local to national landscapes, several sources highlight the need for STEM education and initiatives that build STEM innovation and technical workforce capacity. Multiple factors are working to increase demand for a STEM-educated workforce: 1) California's increasingly knowledge-based economy; 2) the needs of an aging populations; 3) the scope of California's workforce eligible to retire.

- Local investment in STEM: $3.5 million dollar five-year private/public partnership by the Sonoma County Building Economic Success Together (BEST) to support local job creation and economic development

- CA is Educating Too Few Student in STEM (Campaign for College Opportunity, Technical Difficutlies, 06/19/09): In California, growth in STEM employment (20.3%) is greater than growth in non-STEM employment (13.6%) through 2016 while at the same time the number of STEM degrees is increasing more slowly than non-STEM degrees

- Education (Huffington Post, JD Hoye, "Making Good on President Obama's STEM Challenge, 02/14/13): Though early interest in STEM remains strong, 60% of students interested in a STEM career change their minds within the first year of high school.

- National Environmental Education Foundation, 2012: By 2014, about 2 million STEM-related jobs will be created; currently, only 1 in 18 workers in America are in STEM

fields. Workers with a STEM background have earned about 26% more, with engineers earning some of the highest average beginning salaries for bachelor's degrees.

- **2012 Community College League of California**: STEM community college to UC transfer students account for 48% of UC's bachelor's degree in STEM

- **2010 Bureau of a Labor Statistics**: Demand for STEM professionals will remain robust with fastest growth in biomedical, civil, environmental, mechanical, industrial and petroleum engineering.

- **International (NACME, Latinos in Engineering, July 2011)**: International trends in STEM demonstrate a rapid increase in the production of new engineers in nations like China and India; US underrepresented minorities (African Americans, Latinos, and American/Alaska natives) represent an untapped talent pool in the United States; Latinos represent 6 percent of the U.S. engineering workforce, but account for 14% of the overall U.S. workforce.

STEM outreach and student success programs within the California community college system play an increasingly important role in a student's path toward a STEM bachelor's degree.
Program Context framed by the Environmental Scan

The MESA Programs at Santa Rosa Junior College sit at a critical crossroad between changing STEM CTE workforce preparation and STEM bachelor degree attainment. The MESA Programs must be guided by the District and the goals and actions of strategic planning. The District's strategic directions will establish a STEM-education pathway whereby MESA retreats, stabilizes without change, or expands to actualize a greater and more comprehensive STEM-education initiative.

The MESA Community College Program at SRJC is funded through the California Community College Chancellor's Office, Fund for Student Success, and the Sonoma County CC District. The California Community Colleges' Fund for Student Success received $1.5 million in 2012-13, down from $2.5 million. As a result, SRJC's MESA Community College program received $50,500 in 2012-2013, a 38% funding reduction. The program functions under the administration of Academic Affairs with operational links to Student Services.

The MESA School Program is funded through the MESA Statewide Office and the University of California's Student Academic Preparation and Educational Partnerships (SAPEP). For the 2012-2013 year, MESA received $4.7 million, down from $11 million. During the 2012-2013 year, SRJC's MESA Schools Program operated via an unfunded mandate, receiving no direct funds from the MESA Statewide Office or SAPEP. The MESA Schools Program continued under SRJC's MESA Community College Program.

The MESA Community College Program supports STEM transfer students by instituting protective measures to amend the research-validated risk factors for college completion ,while preparing students for academic and professional success at a four-year college or university

(Sternberg, Robert, Inside Higher Ed, *Essay on the use of research to improve student retention*, February, 7, 2013.)

1. Uneven formal academic knowledge
2. Lack of informal knowledge about being a college student
3. Inadequate development of self-regulations skills
4. A mindset believing in fixed rather than flexible abilities
5. Disengagement from the college environment
6. Lack of interest in development coursework
7. Issues in academic trajectory
8. Financial concerns

The MESA program at SRJC is impacted and has been for the past 10 years. The program meets and consistently exceeds performance standards. (See PRPP 2012, section 1.2). For spring 2012, MESA served 254 students. Of these, 19.9 % transferred to a four-year university with 100% persisting with a STEM declared transfer major. Fifty-three percent transferred to the University of California system, 41% transferred to the CSU system and 6% transferred out-of-state or to a private college.
(See PRPP 2013, Section 5.0: Performance Outcomes).

2.1a Budget Needs

According to the FY 2011-2012 program unit core data, no district unrestricted funds were allocated to support the operation of the MESA Programs (MCCP, 1392 and MSP, 1393) as it relates to supplies, services and equipment costs. MESA has no unrestricted or restricted fund expenditures for faculty or adjunct payroll.

As reported in the 2011-2012 MESA Program Unit Review, MESA unrestricted fund expenditures increased by 8.09%, a reflection of increased management payroll and benefit costs.

Overall, MESA restricted funds decreased by 28.40%, largely due the loss in May 2012 of a classified position, the MESA Schools Program, Outreach position. The MESA Schools Program incurred total restricted classified payroll costs of approximately $44,888 or .25% of the District total.

The MESA Programs has annual expenditures of $223,075 or approximately .20% of the District total; this is a 14.20% decrease from FY 2010-2011.

The MESA Community College Program's STNC and student payroll (restricted) decreased by 15.26% and 24.94% respectively from FY 2010-2011 levels. Traditionally, the MESA Schools Program has no STNC or student employee positions.

With diminished STNC/student employee hours, the MESA Community College Program is increasingly challenged to provide consistent services, needed hours of operation, and center supervision. Ideally, the ongoing STNC MESA Center Assistant position would be considered for conversion/reengineering to a District Administrative Assistant II/III position or a new classified STEM Programs and Outreach Assistant position. This conversion would allow MESA Community College grant dollars (allowable expense) to pay for a MESA Schools Program STNC position, thereby stabilizing both MESA programs within the District and County.

2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	Santa Rosa	00	00	$69,135.00	To convert annual STNC position to a full-time, 12-month Grade L Admin Asst. or new classified position in order to stabilize and expand the STEM programs and outreach; potentially consolidates STNC positions in MESA, Planetarium, and/or HOPE
0002	Santa Rosa	00	00	$5,000.00	To fund FWS student employee positions to support MCCP, MSP and MESA Industry Advisory Board professional initiatives

2.2a Current Classifed Positions

Position	Hr/Wk	Mo/Yr	Job Duties

2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Manager, MESA Programs	40.00	12.00	Responsible for program design, implementation and continuous evaluation of both MCCP and MSP; monitors mandates from the CCCCO and the MESA Statewide Office as related to MESA program services; supervises MESA Student Center, STNC and student employees; serves as site administrator for Adelante; supports STEM outreach and student services aligned with EOPS, HOPE, Puente.

2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Student Peer Tutors (6)	30.00	9.00	Drop-in tutoring; AEW Workshop facilitators
STNC, MESA Center Assistant	24.00	10.00	Provides clerical, center and event assistance; assists with student performance measure tracking; to assist with MSP deliverables. See STNC job description on file with HR and revised 2011

2.2d Adequacy and Effectiveness of Staffing

According to the 2011-2012 core data calculations for MESA, the programs' FTE-ST: FTE-C ratio is higher than the District's ratio, indicating an over-reliance on temporary staff.

The MESA Schools Program classified position was eliminated in May 2012 and has not been filled or opened as a reengineered assignment. (Reengineering request to HR, March 2012.) The 40-hr per week classified MESA Schools Program, Coordinator –Outreach position is

currently operating with a replacement 12-hour per week STNC position. For AY 2012-13 the district pulled MSP services from three school sites in Santa Rosa and declined new K-12 applications to the program. The MESA Community College Program has a 12-16 hour per week, 9-month, STNC Center Assistant position.

The MESA Community College and MESA Schools programs require stable, reliable administrative support services consistent with the District's appointment of classified personnel.

2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0001	Santa Rosa	00	00	STNC- MESA Center Assistant	STNC - MESA Center Assistant, MSP	STNC
0002	Santa Rosa	00	00	STNC, MESA Center Assistant	STEM Programs & Outreach Assistant (Grade L)	Classified

2.3a Current Contract Faculty Positions

Position	Description
None	

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
Does not apply	0.0000	0.0000	0.0000	0.0000	

2.3c Faculty Within Retirement Range

Does not apply.

2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

Currently, MESA has no faculty positions assigned to the program.

In the past, in order to comply with the grant requirement to offer on-site STEM focused counseling services in the MESA Center, the program transferred funds to the Counseling Department and the Dean III-Counseling and Support Services allocated services to MESA. A counselor, specializing in the transfer requirements of STEM majors, was assigned to the MESA Center for approximately 10 hrs./wk. This practiced ceased effective fall 2006.

Since 2006, the Coordinator, MESA Programs has assumed all workload tasks associated with MESA/MSP student enrollment, eligibility verification, and academic and progress advising. Students are required to navigate drop-in counseling services in order to create and maintain the MESA program requirement for accurate long-term educational plans. This local access/student services standard does not align with programs with similar CCCCO mandates, specifically EOPS, DRD and Puente.

2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	Santa Rosa	00	00	STEM Transfer Advising (Part-time or Adjunct))	

2.4b Rational for Instructional and Non-Instructional Equipment, Technology, and Software

Room 4831 is scheduled for MESA mandated Academic Excellence Workshops, tutor training workshops, and academic and pre-professional enrichment workshops.

Because of center supervision limitations, these offering must be hosted within the walls of the MESA Student Center. Though room 4831 is equipped with a media screen, the instructional space lacks a ceiling mounted computer projector. The lack of built-in technology in room 4831 hinders the effective and efficient delivery of critical MESA services.

2.4c Instructional Equipment and Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	00	00	Ceiling mounted, fixed computer projector	1	$2,100.00	$2,100.00	Darci Rosales	4831	Darci Rosales

2.4d Non-Instructional Equipment, Software, and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact

2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description

2.5b Analysis of Existing Facilities

With the relocation to the Bertolini Student Center from the Lark Temporary building and with program oversight of room 4831, the existing facilities meet the immediate needs of the MESA Programs; however, the reduction in overall "seats" and student computer workstations are problematic.

3.1 Develop Financial Resources

3.2 Serve our Diverse Communities

The MESA program serves all students meeting the academic and educationally/economically disadvantaged criteria established by the California Community Colleges Chancellor's Office and to the greatest extent possible by law encourages participation from historically underrepresented populations.

The MESA program does not recruit faculty positions. STNC position openings are distributed to all district staff. Additionally, the MESA program works with district programs and community agencies mindful of MESA's mission and target student population when recruiting for STNC positions; the program considers all qualified applicants when filling STNC classified staff positions.

MESA student employee positions are confirmed from a pool of applicants in order to align the positions with the academic disciplines and demographic makeup of the programs' student population.

3.3 Cultivate a Healthy Organization

Both the MESA Community College and the MESA Schools programs provide grant dollars to support the professional development of staff.

The MCCP coordinator is required to attend at least two regional MESA Directors Meetings. A portion of each meeting is dedicated to relevant areas of staff development.

3.4 Safety and Emergency Preparedness

To date no action has been taken to share the District's Injury and Illness Prevention Program with the STNC and student employees in MESA. The item will be incorporated, as appropriate, in the fall 2013 staff and student employee orientations conducted by the Coordinator-MESA Programs during the first two-weeks of the fall semester.

Given the scope and work of MESA, MESA District staff completes online training in order to be cleared to drive District vans. All MESA staff requirs ongoing training of the safe evacuation from the 3rd floor of Bertolini, including utilizing evacuation chairs, escape routes, and securing fire doors.

On February 4, 2013, the following information was distributed by the Director, Student Affairs & New Student Programs distributed to program managers housed in Bertolini:

Area Safety Coordinators
1st Floor East – Sandy/Sahara

1st Floor West – Andy/Francisco
2nd Floor East – Marcia/Nicole
2nd Floor West – Inez/Monica
3rd Floor East – Lindsay
3rd Floor West – Marianne/Amy

Building Safety Coordinators
Marty/Robert
At this time, MESA is not prepared to complete a PRPP template for its building and area safety coordinators; yet, anticipates securing finalized details from the VP and Dean of Student Services in time for fall 2013 STNC and student employee trainings.

3.5 Establish a Culture of Sustainability

When appropriate, students and staff recycle paper that has one "clean" side for center scratch paper. The Center has student and staff recycling bins for paper, glass and plastic. All toner cartridges are recycled. Used batteries are disposed of properly. MESA uses the Cubby Announcement Portal and center digital display in lieu of printing and posting special event flyers.

For MESA's student computer lab, the program welcomes being a test/pilot location for a new GO PRINT monitoring and payment project directed by IT.

The MCCP utilizes CCC Confer for conducting meetings with the Chancellor's Office and CA Connects personnel.

4.1a Course Student Learning Outcomes Assessment

Because MESA does not offer curriculum, this section no longer applies. However, the MESA Community College Program is held to performance standards established by the CCCCO. Fundamentally, MESA supports the academic and engagement goals of the chemistry, mathematics, life sciences, engineering and

physics departments by supplementing instruction with peer facilitated tutorial sessions, Academic Excellence Workshops in gateway STEM courses, academic course advising, pre-professional work experience and transfer assistance.

The California Association of MESA Directors (CAMD) has identified program objectives that align with the CCCCO grant guidelines:

1) To increase the number of educationally and financially disadvantaged students pursuing degrees in mathematics, sciences, engineering, or computer science, who are eligible for transfer to a four-year college or university

2) To decrease the amount of time required for MESA community college students to transfer to a four-year college or university

3) To improve the academic performance of MESA CCP students

4) To increase the leadership skills and raise the educational expectations of MESA CCP students

5) To strengthen the relationships among educators, prospective employers in business and industry, and MESA CCP students

6) To increase the number of educationally and financially disadvantaged students pursuing STEM degrees who actually transfer to four-year colleges and universities

7) To nurture partnerships with MESA Engineering and MESA Schools Programs and thus facilitate a smooth transfer "pipeline" to four-year schools.

In spring 2008, CAMD established the following MESA Community College Program Student Learning Outcomes for students who have participated in the program for at least four semesters.

After participating in the MESA CCP students will . . .

A) Have identified a long-term support system including faculty, on-campus resources, professional organizations, and potential employers.

B) Have an educational plan that outlines the requirements needed to transfer to a four-year institution.

C) Have developed the confidence required to navigate the academic process at their current school and prospective four-year institution.

D) After participating in AEWs, the students will demonstrate a command of collaborative work skills in the chosen field of study and exhibit the appropriate study skills to master the material.

Of the Student Learning Outcomes described above, only item B) is currently assessed and reported to the Chancellor's Office.

4.1b Program Student Learning Outcomes Assessment

While Academic Affairs has focused on the development and assessment of student learning outcomes for programs/units that offer certificates or majors, MESA has concentrated on assessing the measurable outcomes delineated in the program's funding guidelines with the CCCCO.

To date, the MCCP's assessment has been limited to specific CCCCO work plan activities and grant objectives. As reported in August 2012, the MESA Community College MESA Program successfully executed each of the 13 component objectives required by the California Community Colleges Chancellor's Office, including transferring at least 20% of the current service cohort.

4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented

4.2a Key Courses or Services that address Institutional Outcomes

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
Academic advising & transfer assistance		X			X	X		X	X	X	X		X	X	X	
Academic Excellence Workshop offering	X		X	X	X		X	X	X	X	X	X		X		X
Academic peer tutoring	X		X	X	X		X	X	X	X	X			X		X
Pre-professional & leadership skills		X		X	X		X	X	X	X		X	X			X

4.2b Narrative (Optional)

5.0 Performance Measures

Preparing a 21st Century Workforce: Themes

> "I called for an all-hands-on-deck approach to science, math, technology and
> engineering. Let's get more kids studying these subjects. Let's make sure
> these fields get the respect and attention that they deserve."
>
> ~ President Barack Obama, February 2012

In 2009, the White House set the goal of restoring the United States to first place in the world in the percentage of people earning a college degree. To support this goal, the administration made commitments to improve the quality of STEM education at all levels, so that over the next decade more U.S. students will be well prepared to pursue a STEM degree and more actually attain such a degree (White House Office of Science and Technology Policy, February 13, 2012). STEM education is the social justice issue for the 21st century workforce.

As the *SRJC 2012 Fact Book* presents, the population of Sonoma County has grown with a greater proportional growth in Hispanic/Latino residents. During these same decades, the proportion of White residents has decreased, while the proportion of Black and Native American residents has remained stable. Projections of county 12th-grade enrollment indicate the high school class of 2022 will be 46.1% Latino, making Latinos the largest ethnic group enrolled. A four-year snapshot of MESA student enrollment is a testament to the program's ability to enroll STEM transfer student who traditionally have had the lowest eligibility rate for UC/CSU attendance. (See table 1.)

Table 1: 4-Year MESA Enrollment Summary (% by Ethnicity)

Academic Year	Cohort	Mexican American and Other Latino	Black/ African American	Native Indian/ Alaskan	Asian/ Pacific Islander	Caucasian	Other
09-10	MESA[1]	44.9%	7.9%	0.8%	8.7%	34.6%	3.1%
	SRJC[2]	17.0%	3.3%	1.1%	6.0%	63.7%	8.9%
10-11	MESA	36.9%	7.7%	2.3%	4.6%	44.6%	3.8%
	SRJC	n/a	2.6%	0.8%	n/a	53.0%	n/a
11-12	MESA	47.8%	4.4%	0.7%	3.7%	39.7%	3.7%
	SRJC	16.6%	2.9%	0.9%	4.7%	56.9%	18.0%
AY 12-13	MESA	34.3%	2.1%	0.1%	14.7%	48.2%	4.1%
	SRJC	17.9%	2.5%	.62%	4.0%	55.3%	4.4%

By the nature of their required coursework, STEM transfer student must engage in the College's assessment process in order to be placed in the most appropriate chemistry, English, and math courses and classes in the Life Sciences and Physics Departments with prerequisite requirements. To be academically eligible for MESA, a student must demonstrate the "ability to benefit," qualifying to register in intermediate algebra, must complete diagnostic assessment testing, and must develop a long-term educational plan consistent with transfer in a calculus-based STEM field. Additionally, a student must present characteristics consistent with being economically (qualify for need-based financial aid) and educationally (first-generation college attender) disadvantaged. Finally, and unless a District provides additional funding support, the CCCCO caps program enrollment at 100 students per year. Since 2002, MESA enrollment has been halted (impacted status) by the four-week of each fall semester. In academic year 2011-2012, the SRJC MESA program began accepting ASEM students per CCCCO guidelines in order to benchmark untapped student need and the potential for growth. (See table 2.)

Table 2. 5-Year MESA Enrollment Summary (Fall Semester Census)

	2008-09	2009-10	2010-11	2011-12	2012-2013

Number of MESA Students	108	127	130	254	136

Collaborative support that draws from both Academic Affairs (STEM Cluster) and Student Services has allowed MESA to expand the number of students served without diminishing student accountability. MESA transfer performance outcomes positively contribute to increasing the number of STEM bachelor's degrees awarded. As reported in 2012 by the Community College League of California, transfer students from community colleges to the University of California account for 48% of the UC's bachelor's degrees in STEM. Beyond Sonoma County and California, the overall transfer success of SRJC MESA students bodes well for the national economic picture. The Bureau of Labor Statistics *Occupational Outlook Handbook 2012* projects a need for 178,300 more engineers in the next decade with fastest growth in biomedical, civil, environmental, mechanical engineering. The National Action Council for Minorities in Engineering (NACME) add clarity to this projection, acknowledging that in order to tap the richest pool of talent, bachelor degree awarding institutions need to look to URM (URM means underrepresented minorities, includes African Americans, Latinos, and American Indian/Alaska Natives) populations at community colleges. The White House Council on Women and Girls and the National Alliance for Partnerships in Equity add gender balance to the discussion, noting a long-standing underrepresentation of females in STEM fields. In 2011-12, MESA students accounted for 9.2% of the total number of students transferring from SRJC to University of California and 2.6% of the CSU transfers (*Sonoma County Junior College District Fact Book 2012*, Student Outcomes SO-1).

Table 3: 4-Year MESA Transfer Summary

	AY 08-09	AY 09-10	AY 10-11	AY 11-12
Spring Cohort MESA Enrollment	n = 118	n = 127	n = 130	n = 254
Transfer Rate	23% (27)	33% (42)	39% (51)	21.6% (55)
Transfer to UC	44%	45%	29%	49%

Transfer to CSU	56%	48%	57%	44%
Other Transfer Institutions[3]	0%	7%	14%	7%
Notes: [3] Private and out-of-state schools				

The CSU report "Divided We Fail" calls into question the ability of the community college system to help students attain their academic and career goals. The report reveals those once students arrive at a community college not many of them actually achieve a certificate, A.A./A.S degree, or transfer within six years; 70% of the degree-seeking students do not complete either a degree or a certificate or had not transferred. For the 2010-2011 MESA transfer cohort, 75% transferred in less than 6 years and nearly half (45%) transferred within 4 years. For the 2012-2013 MESA transfer cohort (as of 04/01/13), 86% transferred in 6 years or less and 66% transferred in 4 years or less. Overall, students in the AY 12-13 MESA transfer cohort transferred on average (mean) in 8.55 semesters.

MESA Schools Program- PERFORMANCE MEASURES (2010-2011)

The following are the MSP annual goals for AY 10-11 as reported to Statewide MESA:

Description of Outcome	Reported Status
Outcome 1A: 75% of the MESA seniors will have successfully completed the A-G requirements for admissions to the UC/CSU system.	For the academic year ending in June 2011, 53% of the senior level students satisfied this outcome expectation. 54% of of the college-going seniors reported their intent to attend SRJC in the fall and therefore did not feel the need to complete the A-G requirements for admissions to the UC/CSU system.

Outcome 1B: Graduating MESA students will attain or exceed a college-going rate of 75%	Based on senior surveys completed in April 2011, 75% of the graduating seniors declared intent to enroll at a post-secondary institution in fall 2011.
Outcome 1C: Graduating MESA students will attain or exceed a minimum GPA of 3.0.	40% of the students exceeded a minimum GPA of 3.0.
Outcome 1D: Grade 12 MESA students will represent at least 20% of the MESA high school enrollment.	31% of enrolled MESA students were seniors.
Outcome 1E: 90% of MESA students will have successfully completed Algebra 1 by the beginning of the 10th grade.	70% completed Algebra 1 by the beginning of 10th grade.
Outcome 1F: 50% of graduating MESA students will have completed higher-level math above Algebra II.	50% of the graduating seniors were taking math above Algebra II.
Outcome 1G: 50% of middle school students will have completed Algebra I by the end of grade 8.	100% of the eighth grade middle school students completed Algebra I by the end of AY 2010-2011.
Outcome 1H: 75% of middle school students will have completed pre-algebra and two years of science by the end of grade 8.	100% of all eighth grade middle schools students completed pre-algebra and two years of science by the end of AY 2010-2011.
Outcome 1I: 75% of MESA students will pass the CAHSEE by the end of grade 10.	77% of MESA students passed the CAHSEE.
Outcome 1J: 80% of MESA students will take part in a STEM challenge activity.	100% of students took part in a STEM challenge activity.

Outcome 1K: Information and opportunities for off school-site STEM-related activities are provided to 100% of MESA students.	100% of all MESA students were offered an opportunity for an off-site STEM-related activity.

5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

Does not apply

5.2a Enrollment Efficiency

Does not apply.

5.2b Average Class Size

Does not apply.

5.3 Instructional Productivity

Does not apply.

5.4 Curriculum Currency

Does not apply.

5.5 Successful Program Completion

Does not apply.

5.6 Student Success

General Data: Academic Progress

MESA enrolled students present with identified at-risk factors, specially first-generation college attenders and financial need.

Based on information in the 2011-2012 Student Services Program Review, the MESA student cohort enrolled in credit courses (100%) and was predominately between the ages of 20-24 (58%).

This cohort performed better than the overall SRJC student population and the credit only students in retention and persistence. 94% of the MESA cohort persisted from fall to spring enrollment. For degree applicable courses, 81% demonstrated successful course completion; district-wide 68% of all credit only students successfully complete their semester coursework. Trend data for these student success measures are detailed below.

Persistence and Course Completion
Student Services Program Review PRPP Data

	MESA Cohort 2010-11	%	Credit Only Students (District) 2010-11	MESA Cohort 2011-12	%	Credit Only Students (District) 2011-12
Persistence						
Enrolled Fall	130			254		
Persisted to Spring	122	94%	61%	238	94%	59%
Course Completion						
Attempted	1060			2107		
Successful	839	79%	67%	1697	81%	68%

Note: See 5.0 Performance measures for transfer results.

5.7 Student Access

Based on District enrollment numbers, MESA serves a greater proportion of historically underrepresented students; MESA student access complies with the enrollment expectations detailed in the CCCCO funding guidelines.

General Data: Description of Students Served AY 2010-2012

The 2011-2012 MESA student enrollment effort aligned with the mission and vision of the statewide program. Historically underrepresented students comprised 48**%** of MESA's 2011-2012 cohort, compared to 35% at the district level (credit only). Trends are detailed in the table below.

Student Services Program Review PRPP Data

	MESA Cohort 2010-11	MESA 2010-11	Credit Only Students 2010-2011	MESA Cohort 2011-12	MESA 2011-12	Credit Only Students 2011-12
Total Students	130	100%	28,144	254	100%	25,727
English NOT Primary Language	30	23%	12%	48	19%	11%
Gender						
Male	75	58%	46%	187	74%	46%
Female	55	42%	52%	67	26%	52%
Race/Ethnicity						
African/Am	8	6%	2%	6	2%	2%

Asian	9	8%	3%	12	5%	3%
Filipino	1	0%	.72%	1	.39%	.85%
Hispanic	44	42%	13%	71	28%	14%
Native Am	2	0%	.88%	3	1%	.88%
Other Non-	2	4%	.36%	0	0%	.16%
White	1	1%	.42%	1	.39%	.42%
Pacific Islander	53	36%	66%	133	52%	65%
White	7	4%	4%	7	3%	2%
Unknown						
Financial Aid						
Received	95	73%	25%	149	59%	30%
BOG Waiver	94	72%	25%	148	58%	30%
Pell Grant	55	42%	3%	78	31%	10%

5.8 Curriculum Offered Within Reasonable Time Frame

Does not apply.

5.9a Curriculum Responsiveness

Does not apply

5.9b Alignment with High Schools (Tech-Prep ONLY)

Does not apply.

5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

5.11a Labor Market Demand (Occupational Programs ONLY)

See Environmental Scan, section 1.2.

5.11b Academic Standards

Does not apply.

6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	M	Goal	Objective	Time Frame	Progress to Date
0001	Santa Rosa	00	00	Reestablish the staffing platform critical to stabilizing the MESA programs	Secure district funding a one-year STNC position (MSP); create a new district classified position to support comprehensive STEM/CTE outreach and retention	2012-2013	District general fund monies
0002	Santa Rosa	00	00	Leverage the present strengths in the District's MESA Programs and STEM cluster programs to secure a NSF-S-STEM grant; institutional the STEM Fellows Program initiative in AY 2012-13 with funding from an Agilent Technologies Foundation grant; create a STEM course, "An Introduction to Research", as a STEM-specific alternative to LIR 10, thereby opening AA-degree completion to a greater number of STEM transfer students	By 08/13, submit an NSF S-STEM grant; submit a new course proposal	05/13-01/14	Grant writing assistance; instructional department reassign time
0003	Santa Rosa	00	00	Consolidate existing STEM-focused K-12 outreach, CTE, transfer programs in order to improve efficiency, resource management and measureable student success outcomes in areas identified as STEM supporting	Identify a task workgroup; cooperation to realign exisiting services/positons	2013-14	Inclusion in the District's stratgic plan
0004	Santa Rosa	00	00	Seek greater industry support from agencies dependent upon a STEM workforce that includes STEM technical workers through	To become a partnership program for PG&E energy pathways program (CTE/Transfer)	2013-2014	Reassign time from CTE deans to

			STEM bachelor' degree level employees; investigate partnership programs with energy industries, specifically the Energy Providers Coalition for Education www.EPEConline.org and the Center for Energy Workforce Development www.CEWD.org.		

6.2a Program/Unit Conclusions

Location	Program/Unit Conclusions
Santa Rosa	MESA is impacterd with student need indicative of growing the program. New enrollment managment procedures have successfully limited the program, keeping the numbers in alignment with funding; however, too many students are never able to enroll and benefit from MESA services.
Santa Rosa	STEM K-12 outreach is fundamental to the MESA/Disrict mission and vision; District general fund support is needed in the short-term to stabalize the District's MESA Schools Program, namely STNC funding for 12-13
Santa Rosa	Though not evident in current district core data (MESA has no credit-based courses or faculty positions), MESA has documented long-term success consistent with CC desired student outcomes and directives linked to the Student Success Act
Santa Rosa	MESA is impacterd with student need indicative of growing the growing the program. New enrollment managment procedures has successfully limited the program, keep the number in alignment with funding; however, too many students are never able to enroll.
Santa Rosa	MESA can provide direction and leadership (college initiatve 1) in order to re-engineer the current fragmented STEM, CTE, and School Initiative to better manage K-14 outreach and retention efforts
Santa Rosa	Though not evident in current district core data (MESA has no credit-based courses or faculty positions), MESA has documented long-term success consistent with CC desired student outcomes and directives linked to the Student Success Act

6.2b PRPP Editor Feedback - Optional

MESA is one of the key programs that helps ensures student success in the STEM disciplines. In my opinion, we need to find a way to provide additional District support to the program as the categorical funds are being cut.

6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Santa Rosa	00	00	Reestablish the staffing platform critical to stabilizing the MESA programs	Secure district funding a one-year STNC position (MSP); create a new district classified position to support comprehensive STEM/CTE outreach and retention	2012-2013	District general fund monies
0002	Santa Rosa	00	00	Leverage the present strengths in the District's MESA Programs and STEM cluster programs to secure a NSF-S-STEM grant; institutional the STEM Fellows Program initiative in AY 2012-13 with funding from an Agilent Technologies Foundation grant; create a STEM course, "An Introduction to Research", as a STEM-specific alternative to LIR 10, thereby opening AA-degree completion to a greater number of STEM transfer students	By 08/13, submit an NSF S-STEM grant; submit a new course proposal	05/13-01/14	Grant writing assistance; instructional department reassign time
0003	Santa Rosa	00	00	Consolidate existing STEM-focused K-12 outreach, CTE, transfer programs in order to improve efficiency, resource management and measureable student success outcomes in areas identified as STEM supporting	Identify a task workgroup; cooperation to realign exisiting services/positons	2013-14	Inclusion in the District's stratgic plan
0004	Santa Rosa	00	00	Seek greater industry support from agencies dependent upon a STEM workforce that includes STEM technical workers through STEM bachelor' degree level employees; investigate partnership programs with energy industries, specifically the Energy Providers Coalition for Education www.EPEConline.org and the Center for Energy Workforce Development www.CEWD.org.	To become a partnership program for PG&E energy pathways program (CTE/Transfer)	2013-2014	Reassign time from CTE deans to