

## 2015 Annual Performance Report

Submitted: 01/28/2016 02:14 PM

UNIVERSITY OF NEW MEXICO

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Name of College/University

P031S140055

PR Award Number

187985

Unit Identification

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Title V - Developing Hispanic-Serving Institutions

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Department of Education Grant Program

STEM Collaborative Center: Collaborative strategies to maximize efficiency and improve STEM achievement for Hispanic, low-income and high-need students

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Project Title

4-year Public

Type and Control of Institution

Year 1

Grant Year

Authorized Representative:

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Date 01/27/2016

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## Section 1: Executive Summary

The purpose of the legislation that established the Title V program is to "expand educational opportunities for, and improve the academic attainment of Hispanic students; and expand and enhance the academic offerings, program quality, and institutional stability of colleges and universities that are educating the majority of Hispanic college students and helping large numbers of Hispanic students and other low-income individuals complete postsecondary education."

- A. This section summarizes how the grant enabled the institution to fulfill the legislative intent of the Title V program.
1. The impact of the Title V grant on the institution's capacity to contribute to fulfilling the goals of the legislation.

This program has just completed its first year. Hence, some of the following initiatives are still in their infancy. The STCC addresses two primary goals: GOAL ONE improves persistence and graduation in STEM for Hispanic, low-income and high need students (meeting the legislated purpose "expand educational opportunities for, and improve the academic attainment of, Hispanic students"); GOAL TWO strengthens UNM's capacity to serve Hispanic, low-income and high-need students by increasing collaboration and accountability among academic units and student services departments (meeting the legislated purpose "enable HSIs to expand and enhance their academic offerings, program quality and institutional stability").

Based on these goals and the purpose of Title V legislation, the STEM Collaborative Center implemented the following initiatives during Year One.

**STEM SUMMER (Goal One).** During the Year One summer, STEM Summer included 18 STEM events, workshops and projects for undergraduate students (marketed primarily to first and second year students). These included events from the following categories (see pages 22-23 of the original application): National Laboratory Exploratory Experience, Field Experience, Career Capsule, Undergraduate Research and MathBoost. STEM Internships were conceptualized, but due to the short turn-around window, were offered during Year Two. In Year One, 348 total undergraduate students participated in the STEM Summer events. Of these, 121 students fit the definitions needed to meet Activity Objective AO1, far exceeding the target of 50.

Throughout the first eight months of Year One, STCC staff have established and strengthened relationships with external agencies (including the Air Force Research Lab, Sandia National Laboratory, Valles Caldera National Preserve, Very Large Array, and FatPipe ABQ), and partner departments at UNM (including the College of Arts & Sciences, School of Engineering, Center for Academic Program Support, Provost Office, Student Affairs, El Centro de la Raza, and the Biology Department, among many others). The STCC Website lists more than 45 partners, most of whom have collaborated on STEM Summer events.

In addition to program planning and implementation, STCC staff have focused on building a strong infrastructure to the support the program. First among these tasks was the creation of a website/application that allows student to view and register for STEM Summer events, and for staff to monitor student attendance. This robust online portal was developed in cooperation with the UNM Information Technologies Office and will serve as a model for other UNM departments with similar needs.

**STEM GRADUATE (Goal One).** In Year One, STCC staff assisted 29 students to re-enter their UNM STEM degree programs (see pages 22-23 of the original grant application). This program has been developed collaboratively with the UNM Office of Student Academic Success, with the STCC Graduate G.A. located in that office. The G.A. has corresponded with students via emails, letters, telephone calls, and in-person visits. Students have been reconnected with their degree programs and referred to their program advisors for additional support.

**DISCOVER STEM (Goal One).** Since STCC staff were not brought onboard until mid-January, we were unable to plan a full STEM student conference in Year One (see pages 23-24 of the original grant application). Instead we collaborated with other UNM programs to offer the same content in a different formats. Eight Discover STEM conference sessions were offered as part of the annual UNM Shared Knowledge Conference. This conference is designed to showcase student involvement in research, and was expanded to include the Discover STEM mission. In addition, the STCC developed Discover STEM sessions for the AEON Workshop Series. Four Discover STEM sessions through AEON occurred throughout the spring semester. In total, 141 STEM-interested students participated in Discover STEM conference sessions and workshops, lower than the Year One target of 250 students.

In Year Two, we are planning to offer a full Discover STEM Conference for incoming first-year students. This conference will be held in August 2016, and will focus on STEM career exploration, emerging technologies, and STEM pathways. The STCC is also co-coordinating a summer STEM health science conference scheduled for June 2015. Discover STEM

sessions will continue to be offered at the Shared Knowledge Conference and in cooperation with other student conferences held on campus.

**PCSSS COLLABORATIVE ACTIVITIES (Goal Two).** Through the first eight months, the STCC Oversight Council (see page 38 of the original grant application) has developed and finalized a charge, authority, and structure for the Provost Committee on STEM Success (see pages 27-28 of the original grant application). This committee began meeting in Year One under the name of STEM Undergraduate Network (SUN). The four activities in Year One included the following:

- **HIGH IMPACT PRACTICE (HIP) ANALYSIS, DATA COLLECTION.** The UNM FYSC HIP Data Subcommittee, led and supported by the STCC, collected data regarding first-year STEM student participation in specific impact practices (i.e., mentoring, career exploration, library services). The goal is to understand which impact practices have the strongest impact on first-year STEM students, especially those traditionally underrepresented in STEM fields. This will assist the STCC in its mission to reduce duplication of support programs, and identify gaps in services to students (see pages 30-31 of the original grant application). During Year Two, statistical analysis will be conducted by the committee in cooperation with the Office of Institutional Analysis, and findings will be reported to the STCC Oversight Council, the Provost, and other selected committee and administrators.
- **DIRECTORY OF STEM PROGRAMS.** In order to help students identify and utilize the appropriate UNM STEM support services, the STCC is creating an online directory of STEM programs. These programs include academic disciplines, student & academic support programs, and STEM student professional organizations. This directory will be available on the STCC website by February 2016. To build this directory, STCC staff interviewed faculty, staff, and students from each of the departments and organizations.
- **COMMUNICATION NETWORK.** In order to help engage and connect first-year and second-year STEM students to STEM student and academic support networks, the STCC developed a Student Communications Network. This network provides faculty, staff, and students with information regarding the following: STEM listserves and email distribution lists, UNM STEM blogs and departmental social networking sites, campus LCD screens and bulletin boards, campus table-tent locations, a standardized STEM Calendar of Events, and a weekly STEM email newsletter (STEM Bulletin). This information is made available online to program directors and student organizations, and helps programs better target their STEM opportunities and events to students (especially to first-year and second-year students who have not yet joined a STEM discipline or support community).
- **MYUNIVERSITY BADGING SYSTEM.** The Dean of Students Office has led the effort to create a social-badging system connected to essential student skills (including research, critical thinking, professionalism, communication, and collaboration). This system has been developed by committee, with representation from across the University. As part of the MyUniversity initiative, the STCC is piloting the first implementation. Starting in August, all STCC events have been categorized and publicized to students using the MyUniversity model. This project helps students identify STCC events that most fit their goals and needs, and translates their STCC learning outcomes into STEM workforce language for their resumes and grad school applications.

**DATAMART TOOLS (Goal Two).** Due to unexpected delays in hiring, the DataMart Programmer began her work on February 23 2015. In gearing up for the creation of new tools, the Programmer spent her first month learning the architecture, software and data relationships of the UNM DataMart tool. The process for building the DataMart infrastructure was more extensive than originally anticipated. Substantial back-end coding was required to build the tools, and the process for requesting data access took longer than planned. We currently have completed coding for two tools, and are in the process of coding one additional tool: the STEM Return and Advance tool (degree progress analytics) has been coded and will be available in beta form by the end of March 2016; the Cohort Tracking Tool has been coded and will be available in beta form by the end of April 2016; the APR Tool is still in development and will be available in beta form by the end of July 2016. Two other tools are in the planning phase, with two others under consideration.

## 2. How has the grant helped to carry out the mission of the institution?

UNM's Mission Statement reads, in part, "The mission of the University of New Mexico is to serve as New Mexico's flagship institution of higher learning through demonstrated and growing excellence in teaching, research, patient care, and community service; Educate and encourage students to develop the values, habits of mind, knowledge, and skills that they need to be enlightened citizens, contribute to the state and national economies, and lead satisfying lives." Prior to implementation of this program: UNM lacked substantial STEM-intensive programming for first and second year students; UNM lacked substantial STEM programming between academic and student affairs; and UNM lacked a set of tools that encourage efficiency, collaboration, and accountability in STEM. Each of these deficiencies are especially impactful for Hispanic, low-income and high need student populations. By addressing these challenges, UNM leverages institutional strengths with grant resources to improve student learning, research and civic engagement within STEM. Simultaneously, UNM responds to regional, state, and national STEM workforce needs.

In late July 2016, as per the original grant application, the external evaluator met with staff, students, faculty, administrators, and other stakeholders to determine grant progress and impact. The following excerpts from her report further demonstrate how the grant is helping carry out UNM's mission:

"UNM STCC has established itself as the center of all things STEM at the University. As demonstrated through executive level support, integration into University planning, and visibility of project activities; UNM STCC appears to have been

embraced and supported by stakeholders throughout the institution. During the site visit it was obvious that UNM STCC is quickly becoming an integral part of campus life and is viewed as a driving force for institutional change in STEM. The PI position is shared among three (3) key administrators within the University which affords the project the status and support necessary for successful implementation. The Project Director has established himself as a leader in STEM on campus and central to collaboration and conversation that promotes student success in STEM.”

“Clearly the role of UNM Title V with respect to improving student engagement and providing innovative approaches for support is evident. During all discussions with staff and partners this area was a focus of positive feedback. It is apparent that UNM Title V has been successful in creating a sense of connection for students and an environment that embraces student involvement and support. Partners and staff regularly commented on the ability of UNM Title V to connect various areas on campus and to create consistency with services delivered to students. This is an enormous task for a project to undertake. It is exceptional that UNM Title V has made such an impact in bringing together campus resources for improvement and quality service. This success is further demonstrated by the commitment of various University entities to institutionalize components of the project well before the end of the grant cycle.”

“Most notable is the progress made in establishing both internal and external partners. Through innovative ideas, dedicated staff and committed partnerships, the project has been successful with implementing multiple aspects of the approved application and marketing project activities, mission and goals. The progress that UNM STCC has made in creating an environment that reflects inclusiveness, support, collaboration and collegiality is amazing. It is clear that strides have been made in establishing UNM STCC as the hub of STEM activity on campus.”

- B. The following information documents the institution's experience with the grant as reported during the current reporting period.

If your institution has experienced any unexpected outcomes as a result of this grant, that affect for better or worse its capacity to fulfill the goals of the legislation, tell us about them here.

The following unexpected outcome has contributed positively to UNM's capacity to fulfill the goals of the legislation by expanding UNM's regional STEM impact.

Creating an institution-wide STEM committee proved more complicated than originally imagined. STEM exists in a regional context much broader than UNM, while still being strongly tied to UNM. In other words, STEM includes UNM's higher education enterprises, but also includes the outreach of UNM students and faculty to middle schools and high schools. STEM includes UNM's workforce partnerships, as well as its research collaboratives. In developing the UNM STEM committee, UNM wrestled with practical applications of this challenge. Specifically, how much of the P-20 STEM pipeline should be represented by the UNM STEM committee? How focused should the committee be on K-12 college readiness issues? The larger the mission of the committee becomes, the larger the committee membership becomes. Is a committee constituted by more than 60 individuals and focused on the entire P-20 pipeline (inclusive of faculty research) too cumbersome to address UNM's undergraduate STEM education goals?

As a result, UNM opted to constitute a small undergraduate STEM education committee under the auspices of the STCC Oversight Council. This committee focuses on UNM's undergraduate STEM challenges.

At the same time, UNM opted to support the creation of regional STEM Coalition that would be inclusive of UNM's STEM outreach, workforce, and research mission. UNM staff have partnered with Albuquerque's Mission:Graduate program (a coalition of public education, postsecondary education, and industry) to create a regional STEM-H hub. This hub is currently in the development stage, and should be launched within the next year. This regional hub will allow UNM to better position its programs and services within the greater context of community and regional needs.

Tell us about any challenges that you have had during the reporting period or that you anticipate in the coming year which may affect your ability to meet the goals of your grant. Include, if applicable, your institution's plans to meet these challenges.

One of the goals of this program is the development of four DataMart tools per year. These online data collection and reporting tools will allow UNM's faculty and staff to access data quickly for purposes of planning and assessment. For instance, academic and student affairs departments would be able to monitor the degree progress of the many students they serve. Through this DataMart tool, faculty and staff could quickly identify students who are lagging behind in their degree progress, or who have begun taking courses which will not contribute to expedited degree completion. Once identified, advisors will contact students to help get them back on track.

Creation of these tools is far more complicated than originally expected. For instance, many degrees utilize complex paper-based exceptions tables to determine which course options count towards graduation. Currently, departmental degree progress analyses are made by advisors on an individual student basis.

Automating these processes involves substantial coding and numerous program interviews. Consequently, these tools are taking longer to complete than originally intended.

Our intent is to catch up during Year Two, creating between four and six tools.

## **Section 2: Accreditation**

### **Accreditation**

Institution's primary accrediting agency.

X The Higher Learning Commission of the North Central Association

### Section 3: Grant Activities and Focus Areas

Grant activity carried out during this reporting period in your grant application: **Development of a STEM Collaboration Center to Maximize Efficiency and Improve STEM Achievement for Hispanic, Low-income and High-need Students**

Total \$ spent on this activity during the current reporting period: \$409,519.00

Focus Area: *Student Services and Outcomes*

<b>Title V Legislative Allowable Activities [Note: All listed activities are directly from the legislation.]</b>	<b>Dollars Spent</b>	<b>% of Dollars</b>
Purchase, rental, or lease of scientific or laboratory equipment for educational purposes, including instructional and research purposes.	0.00	0
Construction, maintenance, renovation, and improvement in classrooms, libraries, laboratories, and other instructional facilities.	0.00	0
Support of faculty exchanges, faculty development, curriculum development, academic instruction, and faculty fellowships to assist in attaining advanced degrees in the fellow's field of instruction.	0.00	0
Purchase of library books, periodicals, and other educational materials, including telecommunications program materials.	0.00	0
Tutoring, counseling, and student service programs designed to improve academic success.	352,519.00	86
Funds management, administrative management, and acquisition of equipment for use in strengthening funds management.	0.00	0
Joint use of facilities, such as laboratories and libraries.	0.00	0
Establishing or improving a development office to strengthen or improve contributions from alumni and the private sector.	0.00	0
Establishment or improving an endowment fund.	0.00	0
Creating or improving facilities for Internet or other distance learning academic instruction capabilities, including purchase or rental of telecommunications technology equipment or services.	0.00	0
Establishing or enhancing a program or teacher education designed to qualify students to teach in public elementary schools and secondary schools.	0.00	0
Establishing community outreach programs that will encourage elementary school and secondary school students to develop the academic skills and the interest to pursue postsecondary education.	0.00	0
Expanding the number of Hispanic and other underrepresented graduate and professional students that can be served by the institution by expanding courses and institutional resources.	0.00	0
<b>OTHER ACTIVITIES--PLEASE DESCRIBE IN SIMILAR DETAIL</b> Improving the effectiveness of existing STEM support programs by increasing collaboration and developing shared tools (including those related to outcomes analysis)	57,000.00	14
<b>Total Expenditure For This Activity</b>	<b>409,519.00</b>	<b>100%</b>

**Process Measures for “Development of a STEM Collaboration Center to Maximize Efficiency and Improve STEM Achievement for Hispanic, Low-income and High-need Students”**

The following information depicts what the grantee has accomplished in the LAA categories for this Activity.

**LAA Category:** *Tutoring, counseling, and student service programs designed to improve academic success.*

<b>Other: Did the number of Hispanic, Low-Income and High Need students participating in STEM Summer events increase?</b>	Yes
<i>If yes:</i> Start <u>0</u> End <u>121</u> Application Objective <u>50</u>	
<b>Other: Did the number of students who re-enter their STEM degree program increase (as a result of the STEM Center)?</b>	Yes
<i>If yes:</i> Start <u>0</u> End <u>29</u> Application Objective <u>10</u>	

**LAA Category:** *Other, please describe in similar detail.*

<b>Other: Did the number of collaborative STEM projects increase (mutli-department projects, sponsored by the STEM Center)?</b>	Yes
<i>If yes:</i> Start <u>0</u> End <u>4</u> Application Objective <u>4</u>	
<b>Other: Did the number of DataMart Tools increase (sponsored by the STEM Center)?</b>	Yes
<i>If yes:</i> Start <u>0</u> End <u>2</u> Application Objective <u>4</u>	

## Focus Area: Student Services Outcomes

This section depicts institutional outcomes that can be categorized in the Student Services and Outcomes focus area. Information is provided on the measures that the grantee felt were *most reflective of their activities supported by Title III/V funds* for the current reporting period. Grantees were required to answer at least two of the measures questions.

<b>Has the institution's retention rate improved?</b>	Yes
Cohort: <u>STEM-Interested first-year Hispanic, Low-Income or High Need students</u> If yes: Initial rate <u>77.76</u> Final rate <u>79.35</u> Goal <u>79.31</u> I would like to provide a brief supporting statement: Initial rate = 2013-14 cohort; Final rate = 2014-15 cohort	
<b>Has the average GPA of students increased?</b>	Yes
Cohort: <u>STEM-interested undergraduate students</u> If yes: Initial GPA <u>3.13</u> Final GPA <u>3.14</u> Goal <u>0</u> I would like to provide a brief supporting statement: Initial rate = 2013-14 undergraduate STEM students; Final rate = 2014-15 undergraduate STEM students	
<b>Has the retention rate of students who participated in other student services programs increased?</b>	Will report next year
Cohort: <u>Students who participate in STEM Summer or STEM Leadership Academy</u> If yes: Initial rate <u>0</u> Final rate <u>0</u> Goal <u>0</u> I would like to provide a brief supporting statement: As this grant is in its first year, not enough semesters have passed since our Summer 2015 interventions to accurately measure this impact. This will be reported next year.	
<b>Has the average number of credits completed by students who participated in other student services programs increased?</b>	Will report next year
Cohort: <u>Students who participate in STEM Summer or STEM Leadership Academy</u> If yes: Initial # <u>0</u> Final # <u>0</u> Goal <u>0</u> I would like to provide a brief supporting statement: As this grant is in its first year, not enough semesters have passed since our Summer 2015 interventions to accurately measure this impact. This will be reported next year.	

<b>Has the GPA of students who participated in other student services programs increased?</b>	Will report next year
<p>Cohort: <u>Students who participate in STEM Summer or STEM Leadership Academy</u></p> <p>If yes:</p> <p>Initial GPA <u>0</u></p> <p>Final GPA <u>0</u></p> <p>Goal <u>0</u></p> <p><i>I would like to provide a brief supporting statement:</i> As this grant is in its first year, not enough semesters have passed since our Summer 2015 interventions to accurately measure this impact. This will be reported next year.</p>	
<b>Other, please specify:</b> Has the proportion of students who switch majors out of STEM within two years decreased?	Yes
<p>Cohort: <u>Hispanic, low-income and high need students</u></p> <p>If yes:</p> <p>Initial # <u>6.03</u></p> <p>Final # <u>5.92</u></p> <p>Goal <u>5.73</u></p> <p><i>I would like to provide a brief supporting statement:</i> Initial rate = 2013-14 cohort; Final rate = 2014-15 cohort</p>	

## Section 4: Project Status

Continued funding requires evidence of substantial progress towards meeting the activity objectives. Below is a list of objectives for each activity carried out over the current reporting period of the grant.

**ACTIVITY:** Development of a STEM Collaboration Center to Maximize Efficiency and Improve STEM Achievement for Hispanic, Low-income and High-need Students

### On-Schedule Activity Objectives

AO4. In the second grant year, 40 STEM-interested first-year and second-year Hispanic, low-income and high-need students will participate in the STEM Leadership Academy. THIS INITIATIVE IS NOT SCHEDULED TO BEGIN UNTIL YEAR TWO. WE ARE ON SCHEDULE FOR COMPLETION.

AO5: Compared to 2013-14 first-year cohort data, the number and proportion of Hispanic, low-income and high-need first-year students who participate in STEM Summer, STEM Graduate, Discover STEM or STEM Leadership Academy and then who go on to earn STEM bachelor's degrees by September 2019 will increase by 20%. WE ARE ON SCHEDULE TO COMPLETE THIS OBJECTIVE BY SEPTEMBER 2019.

AO9: By September 2019, the PCSS Collaborative Initiatives, DataMart Tools and State of STEM Report will save UNM \$89,000 in expenditures and 6,500 personnel hours. WE ARE ON TARGET TO COMPLETE THIS OBJECTIVE BY SEPTEMBER 2019. IN YEAR ONE, WE ESTIMATE THAT COLLABORATIVE INITIATIVES SAVED UNM MORE THAN \$20,000 AND 2000 PERSONNEL HOURS.

MO1. Compared to 2013-14 historic data, increase the number of Hispanic, low-income and high-need first-year students who go on to earn STEM bachelor's degrees within four years by 7% by September 2018. FINAL DATA FOR THIS OBJECTIVE WILL BE REPORTED SEPTEMBER 2018. COMPARISONS WILL BE MADE TO THE BASELINE FRESHMAN COHORT 2010-11 ACADEMIC YEAR, WHICH INCLUDED 90 STUDENTS GRADUATING WITHIN FOUR YEARS. FOR THE 2011-12 COHORT, THIS NUMBER INCREASED TO 112 (AN INCREASE OF 24%).

MO2. Compared to 2013-14 historic data, increase the proportion of Hispanic, low-income and high-need STEM-interested first-year students who go on to earn STEM bachelor's degrees within four years by 7% by September 2018. FINAL DATA FOR THIS OBJECTIVE WILL BE REPORTED SEPTEMBER 2018. COMPARISONS WILL BE MADE TO THE BASELINE FRESHMAN COHORT 2010-11 ACADEMIC YEAR, WHICH INCLUDED A PROPORTION OF 9.34%. FOR THE 2011-12 COHORT, THIS PROPORTION INCREASED TO 11.2% (AN INCREASE OF 20% OVER THE BASELINE COMPLETION RATE, AND AN IMPROVEMENT OF 1.86 PERCENTAGE POINTS)

MO4. Compared to 2013-14 historic data, increase the proportion of Hispanic, low-income and high-need STEM-interested first-year students who return to UNM for their third year by 2% by September 2016. THIS OBJECTIVE WILL BE REPORTED IN SEPTEMBER 2016. SEE OBJECTIVE M03 FOR PROGRESS ON THE BASELINE AND TARGET COHORTS.

M06. Compared to 2013-14 historic data, increase the number of Hispanic, low-income and high-need STEM-interested undergraduate students who are enrolled at UNM by 7% by September 2016. THIS OBJECTIVE WILL BE REPORTED IN SEPTEMBER 2016. COMPARISONS WILL BE MADE TO THE 2013-14 ACADEMIC YEAR, WHICH INCLUDED 6,269 STEM INTERESTED HISPANIC AND LOW-INCOME STUDENTS. IN 2014-15, THIS NUMBER DECREASED TO 6101. TOTAL ENROLLMENTS AT UNM WERE DOWN IN 2014-15 (A DECREASE FROM 28,644 ENROLLED STUDENTS TO 27,889), AND IT IS POSSIBLE THAT THEY MAY ALSO BE DOWN IN 2015-16. CURRENTLY WE BELIEVE WE ARE ON SCHEDULE TO MEET THIS OBJECTIVE, BUT IT IS POSSIBLE THAT WE WILL FALL SHORT.

### Narrative Supporting Completed Objectives

Below are statements with data and references to goals stated in the grant application as appropriate to document the objectives that were "completed" during each year of the grant.

Activity Objective(s)	Evidence of Completion
AO1. In the first grant year, 50 STEM-interested first-year and second-year Hispanic, low-income and high-need students will participate in STEM Summer.	DURING THE SUMMER OF YEAR ONE, WE SERVED 121 STEM-INTERESTED, LOW INCOME AND HIGH-NEED STUDENTS IN STEM SUMMER PROGRAMS.
AO2. In the first grant year, 10 students will re-enter their STEM degree program or accelerate their STEM degree progress with assistance from STEM Graduate strategy.	IN YEAR ONE, WE HELPED 29 STUDENTS RE-ENTER THEIR STEM DEGREE PROGRAMS.
AO6. In each grant year, at least 4 collaborative STEM activities will be sponsored by Provost Committee on STEM Success (PCSS).	FOUR PROJECTS WERE COMPLETED AS SCHEDULED, INCLUDING STEM HIGH IMPACT PRACTICE ANALYSIS (DATA COLLECTION PHASE), DIRECTORY OF UNM STEM PROGRAMS, COMMUNICATION NETWORK AND MYUNIVERSITY BADGING SYSTEM (OUTCOMES DEFINITIONS AND PILOT IMPLEMENTATION PHASES).

Activity Objective(s)	Evidence of Completion
MO3. Compared to 2013-14 historic data, increase the proportion of Hispanic, low-income and high-need STEM-interested first-year students who return to UNM for their second year by 2% by September 2015.	THE 2013-14 COHORT, 77.76% OF TARGET STUDENTS RETURNED FOR THEIR SECOND YEAR. FOR THE 2014-15 COHORT, 79.35% RETURNED FOR THEIR SECOND YEAR (AN INCREASE OF 2.1% OVER THE BASELINE RETURN RATE, AND AN IMPROVEMENT OF 1.69 PERCENTAGE POINTS)

### Changes in Objective Schedule

Below are statements with data and references to goals stated in the grant application as appropriate to support and explain the need for objective schedule changes.

Activity Objective(s)	Reason(s) for Change	Expected Completion Date
AO3. In the first year of the grant, 250 STEM-interested students will participate in the Discover STEM Conference.	IN YEAR ONE, 141 STEM-INTERESTED STUDENTS PARTICIPATED IN DISCOVER STEM CONFERENCE EVENTS. BY EXPANDING OUR CONFERENCE PROGRAMMING, WE ANTICIPATE MEETING THIS OBJECTIVE BY THE END OF YEAR TWO. THIS EXPANSION INCLUDES THE DEVELOPMENT OF TWO NEW STEM STUDENT CONFERENCES: ONE AT THE BEGINNING OF THE FALL, AND ONE DURING THE SUMMER.	SEPTEMBER 2016
AO7. In each grant year, at least 4 DataMart tools will be created by STCC.	THE LABOR UTILIZED TO DEVELOP THE INFRASTRUCTURE FOR THESE TOOLS IS LARGER THAN ORIGINALLY ANTICIPATED. LIKEWISE, THE TOOLS THEMSELVES ARE MORE COMPREHENSIVE AND IMPACTFUL THAN ANTICIPATED. SEE EXECUTIVE SUMMARY FOR ADDITIONAL DETAILS. WE BELIEVE WE WILL CATCH UP WITH FOUR NEW REPORTS IN YEAR TWO BY SEPTEMBER 2016.	SEPTEMBER 2016
AO8. In each grant year, one State of STEM report will be published and submitted to the PCSS, Provost and President, and be made publicly available on the STCC website.	THIS OBJECTIVE WAS NOT COMPLETED IN YEAR ONE. PERSONNEL RESOURCES WERE STRETCHED THINNER THAN ANTICIPATED TO IMPLEMENT THE STEM SUMMER PROGRAM, THE COLLABORATIVE INITIATIVES, AND DATAMART TOOLS. WE PROPOSE THAT THE YEAR ONE REPORT BE COMBINED WITH THE YEAR TWO REPORT, AND BE COMPLETED AND DISTRIBUTED BY THE END OF YEAR TWO.	SEPTEMBER 2016
M05. Compared to 2013-14 historic data, decrease the proportion of Hispanic, low-income and high-need first-year students who go on to switch majors away from STEM degrees within two years by 5% by September 2015.	FOR THE 2013-14 COHORT, 6.03% OF TARGET STUDENTS CHANGED MAJORS OUT OF STEM PRIOR TO THEIR SECOND YEAR. FOR THE 2014-15 COHORT, 5.92% HAVE CHANGED MAJORS OUT OF STEM PRIOR TO THEIR SECOND YEAR (AN DECREASE OF 1.8% FROM THE BASELINE RETURN RATE, AND AN IMPROVEMENT OF 0.11 PERCENTAGE POINTS). WHILE THIS CHANGE-MAJOR TREND IS IMPROVING, WE HAVE NOT YET MET OUR OBJECTIVE. WE BELIEVE WE ARE ON SCHEDULE TO DO SO BY YEAR TWO.	SEPTEMBER 2016

## Section 4: Budget Summary

Category	Carryover Balance from Previous FY	Actual Budget	Expenditures	Non-Federal Expenditures	Carryover Balance	Next Year's Actual Budget	Changes (Y/N)
Personnel	\$0.00	\$334,000.00	\$263,302.80	\$0.00	\$70,697.20	\$334,000.00	Yes
Fringe Benefits	\$0.00	\$105,494.00	\$85,108.47	\$0.00	\$20,385.53	\$105,494.00	No
Travel	\$0.00	\$12,000.00	\$8,579.59	\$0.00	\$3,420.41	\$9,000.00	No
Equipment	\$0.00	\$14,650.29	\$14,650.29	\$0.00	\$0.00	\$0.00	Yes
Supplies	\$0.00	\$20,349.71	\$19,220.12	\$0.00	\$1,129.59	\$25,000.00	No
Contractual	\$0.00	\$15,000.00	\$0.00	\$0.00	\$15,000.00	\$15,000.00	Yes
Construction	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	No
Endowment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	No
Other	\$0.00	\$20,000.00	\$18,658.52	\$0.00	\$1,341.48	\$32,198.00	No
Total	\$0.00	\$521,494.00	\$409,519.79	\$0.00	\$111,974.21	\$520,692.00	

## **Section 4: Line Item Budget Narrative**

This section provides an explanation of how funds will be expended as a result of changes in each of the selected line item categories.

### **Personnel**

Due to delays in hiring, and to personnel costs running lower than anticipated, there is a significant carry-forward in personnel and fringe benefits. This carry-forward will be utilized to expand STEM SUMMER programming into the fall and spring semesters, including an expansion of MATHBOOST programming.

### **Equipment**

We did not originally anticipate the need for tables and chairs in the space where STEM SUMMER and STEM LEADERSHIP sessions are held. We received permission from the program officer to modify our budget accordingly and purchased the tables and chairs.

### **Contractual**

The contractual cost for the external reviewer was not paid until after the end of the first year. This \$3,000 will be taken from the carry-forward for year two. Likewise, the STATE OF STEM report was not completed in the first year, resulting in a carry-forward of \$12,000. This report will be combined with the Year Two report, and will be funded by the carry-forward from Year One in addition to the budget allocation for Year Two.

## Section 4: Budget Summary Narrative

This section provides an explanation of budget changes, particularly the use of funds from cost savings, carryover funds and other expanded authorities changes to the budget including a description of any significant changes to the budget resulting from modifications of project activities.

During the first year, our carry-forward balance was \$111,974.21. This balance came about through several unforeseen circumstances:

- 1 - Personnel and benefits costs were reduced due to hiring delays at the beginning of the grant. Annual salaries and benefits were also significantly lower than anticipated.
- 2 - State of STEM report was not completed in Year One, resulting in a carry-forward balance of \$12,000.
- 3 - The external reviewer completed her report near the end of Year One, and submitted her invoice at that time. This resulted in her \$3000 contract payment being delayed until after October 1, 2015.

Plans for spending carry-forward balance include the following:

- 1 - STEM Summer programming has been highly successful. We will expand this programming into fall and spring semesters in order to impact even more students. This expansion will result in increased PERSONNEL and BENEFITS costs, as well as increased costs in the SUPPLIES and OTHER budget lines.
- 2 - State of STEM report for year one will be combined with Year Two, and distributed by October 2016. This project will utilize the \$12,000 budgeted for Year One, and the \$12,000 budgeted for Year Two.