



U.S. Department of Education
Grant Performance Report Cover Sheet (ED 524B)

OMB No. 1894-0003
 Exp. 04/30/2014

Check only one box per Program Office instructions.

[] Annual Performance Report [] Final Performance Report

General Information

1. PR/Award #: P031C110184
(Block 5 of the Grant Award Notification - 11 characters.)
2. Grantee NCES ID#: 187985
(See instructions. Up to 12 characters.)
- 3 Project Title: Project for Inclusive Undergraduate STEM Success (UNM STEM Project)
(Enter the same title as on the approved application.)
4. Grantee Name *(Block 1 of the Grant Award Notification.):* University of New Mexico – VP for Student Affairs
5. Grantee Address *(See instructions.)* University of New Mexico, Office of Student Affairs, MSC01 127, 1 University of New Mexico, Albuquerque, NM 87131-0001
6. Project Director *(See instructions.)* Name: Tim Schroeder Title: Project Director, STEM Gateway
 Ph #: (505) 277 - 1761 Ext: () Fax #: (505) 277 - 1782
 Email Address: timschroeder@unm.edu

Reporting Period Information *(See instructions.)*

7. Reporting Period: From: 10/01/2011 To: 03/31/2012 (mm/dd/yyyy)

Budget Expenditures *(To be completed by your Business Office. See instructions. Also see Section B.)*

8. Budget Expenditures

	Federal Grant Funds	Non-Federal Funds <i>(Match/Cost Share)</i>
a. Previous Budget Period		
b. Current Budget Period	\$83,881.77	
c. Entire Project Period <i>(For Final Performance Reports only)</i>		

Indirect Cost Information *(To be completed by your Business Office. See instructions.)*

9. Indirect Costs

- a. Are you claiming indirect costs under this grant? ___ Yes X No
- b. If yes, do you have an Indirect Cost Rate Agreement approved by the Federal Government? ___ Yes ___ No
- c. If yes, provide the following information: N/A
 Period Covered by the Indirect Cost Rate Agreement: From: ___ / ___ / ___ To: ___ / ___ / ___ (mm/dd/yyyy)
 Approving Federal agency: ___ ED ___ Other *(Please specify):* _____
 Type of Rate *(For Final Performance Reports Only):* ___ Provisional ___ Final ___ Other *(Please specify):* _____
- d. For Restricted Rate Programs (check one) -- Are you using a restricted indirect cost rate that: N/A
 ___ Is included in your approved Indirect Cost Rate Agreement?
 ___ Complies with 34 CFR 76.564(c)(2)?

Human Subjects *(Annual Institutional Review Board (IRB) Certification)* *(See instructions.)*

10. Is the annual certification of Institutional Review Board (IRB) approval attached? ___ Yes ___ No X N/A

Performance Measures Status and Certification *(See instructions.)*

11. Performance Measures Status

- a. Are complete data on performance measures for the current budget period included in the Project Status Chart? ___ Yes X No
- b. If no, when will the data be available and submitted to the Department? 12/31/2012 (mm/dd/yyyy)

12. To the best of my knowledge and belief, all data in this performance report are true and correct and the report fully discloses all known weaknesses concerning the accuracy, reliability, and completeness of the data.

Nancy Carr

Title: Sponsored Research Project Specialist

Name of Authorized Representative

Signature: Nancy Carr jo

Date: 04/12/2012



U.S. Department of Education
Grant Performance Report (ED 524B)
Executive Summary

OMB No. 1894-0003
Exp. 04/30/2014

PR/Award # (11 characters): P031C110184

UNIVERSITY OF NEW MEXICO
Project for Inclusive Undergraduate STEM Success (STEM Gateway Program)
PROGRESS TOWARDS GRANT OBJECTIVES

STEM GATEWAY COURSE REFORM PROJECT:

The Gateway Science and Math Course Reform Program has successfully initiated three course-reform projects for the 2012-2013 academic year, following a series of deliberate activities to engage STEM departments with this critical aspect of the entire project. The Dean of Arts and Sciences, Mark Peceny, joined project co-PI and faculty-development director, Gary Smith, in contacting the chairs of departments that teach the gateway courses to encourage them to take advantage of the course-reform opportunities. Smith followed up in meetings with most of these chairs to seed the ideas for the first-year course-reform proposals. In January 2012, the Office of Support for Effective Teaching (OSET) conducted a workshop, "Pathway to Transforming Student Learning and Persistence in Gateway Science and Math Courses", which was led by Smith and used discussion of case studies to introduce the conceptual framework for transformative change in gateway courses and explained how the course reform projects would work. Twenty-one faculty participated in the workshop, including representatives from every department teaching a gateway science and math course. To further stimulate interest and engage faculty with both the importance and process of STEM course reform, Dr. Noah Finkelstein, a nationally regarded physics education research scholar at the University of Colorado, was brought to UNM in February 2012. Finkelstein was the luncheon keynote speaker at UNM's annual "Success in the Classroom: Sharing Practices that Work" conference, hosted by OSET and attended by 70 faculty and administrators. He also conducted two sessions of a workshop, "Interactive Engagement Techniques, Assessments, and Their Research Basis", that was attended by 53, mostly STEM faculty. Finkelstein's programs further engaged the STEM-gateway-course instructors to develop ideas for changing their course curricula and pedagogy.

These efforts culminated in the receipt and acceptance of the targeted three course-reform proposals for the first project year. The project teams each consist of 3-4 UNM faculty and 1-2 CNM faculty. These proposals were received from the instructors for the following courses:

- College Algebra (MATH 121); enrolled by approximately 5000, mostly STEM-aspiring students annually at either UNM or CNM and currently a significant barrier to degree progress for STEM students who did not benefit from exceptional math learning experiences in high school.
- General Chemistry II (CHEM 122); enrolled by approximately 1300 STEM majors annually at either UNM or CNM. Required for 25 degree programs, General Chemistry is the largest course sequence that is gateway to nearly all STEM degrees. The course-reform proposal builds off of reforms initiated in General Chemistry I prior to the beginning of the grant and will integrate reforms across both courses.
- General Physics I (PHYC 160); calculus-based physics enrolled by approximately 600 STEM majors annually at UNM and a particularly significant gateway for engineering majors.

PEER LEARNING FACILITATOR PROJECT:

Overview. The STEM Gateway Peer Learning Facilitator (PLF) Program began in the spring 2012 semester with 27 PLFs and 3 student project assistants. These PLFs served 10 instructors who taught a total of 15 sections in Math, Chemistry, and Earth & Planetary Science gateway courses.

Training. The PLFs completed pre-semester training on January 12 and 13. This included sessions on expectations, administrative logistics, group learning, PLF best practices, and team-building. They began working in the classroom during the first week of class the following week. PLF's met weekly with the PLF coordinator throughout the spring semester. During the spring term, PLFs also completed various Professional Development trainings. These included research and review assignments on STEM in higher education, attending events and conferences from on-campus constituencies like Career Services and Office of Support for Effective Teaching, active learning, and specialized training on issues of race and sexuality at UNM, as well as discipline/subject-specific trainings (in collaboration with the Center for Academic Program Support.)

Assessment. The PLF coordinator has conducted classroom observations for all 15 class sections and all 27 PLFs utilizing an observation rubric. This information helps the coordinator evaluate the PLFs effectively in class, improve one-on-one supervision, design future training sessions and plan for PLF/faculty partnering in future semesters. In addition to the class observations, the PLF coordinator also deployed in-class satisfaction survey of students in all 15 class sections.

Collaboration. The PLF coordinator has established collaborative partnerships with various personnel and organizations across campus, including: Residential Education, UNM's College of Education, the LGBTQ Resource Center, the Men of Color Initiative, the Center for Academic Program Support, the Chemistry departments at UNM and CNM, the Accessibility Resource Center, the Graduate Resource Center and the UNM Center for Academic Program Support.

STEM STUDENT INTEREST GROUP PROJECT:

Design. The syllabus for the STEM student interest groups (SSIG) was developed by the Office of Support for Effective Teaching (OSET), and includes three primary goals: (1) connecting gateway core courses to academic degrees in the experiences of first and second year students, (2) introducing students to the STEM degree programs and departments they are most interested in, and (3) developing soft skills that will help students succeed in their STEM courses. SSIGs make heavy use of active learning techniques. Once designed, the syllabus was submitted to the UNM Curriculum Committee for consideration.

Fall Options. For the fall 2012 semester, twelve SSIGs have been created. These include options for the following majors: biology, engineering, earth & planetary sciences, environmental science and chemistry. They shadow the following gateway courses: CHEM 121 (General Chemistry 1), MATH 150 (Pre-calculus Mathematics), MATH 180 (Elements of Calculus 1) and PHYC 151 (General Physics). These courses are available for online student registration, and are listed in the Freshman Academic Choices catalog. Information on these courses will be presented to students at New Student Orientations, and will be presented to advisors at the annual UNM Advisor Institute.

Instructors and Locations. The Director of OSET has worked with STEM department chairs to begin allocating classroom space within department facilities for SSIG sections. For instance, the SSIG section dedicated to biology students enrolled in CHEM 121 will be held in a classroom supported by, and connected to, the biology department. Likewise, the Director of OSET and the STEM Gateway Project Director have begun conversations with UNM offices (faculty contracts and the graduate student office) and with STEM department faculty to identify and hire SSIG instructors for the fall semester. Once hired, SSIG instructors will be trained by OSET before they begin their fall courses. In addition, SSIG instructors will meet monthly throughout the semester for professional development and reflection.

DATA DRIVEN PRIORITIZATION PROJECT:

Building Infrastructure. During the first six months of the STEM Gateway program, we have focused on building the infrastructure necessary to explore the research questions posed in the grant application. Access to databases within the Office of Institutional Research (OIR) has been secured. Technology required to access and analyze this data has been purchased, installed and aligned with OIR. The definitions and baseline foundations needed to track student enrollment and achievement patterns are being constructed. Additional data sources are being identified where appropriate.

Institutional Alignment. The STEM Gateway Institutional Researcher is active on numerous campus committees that are assessing and improving institutional effectiveness regarding student achievement (including STEM students, Hispanic students and low-income students). The efforts and data collection/analysis measures used by the STEM Gateway program are being aligned with those of the UNM community in order to ensure sustainability of grant initiatives, and to strengthen the impact of the STEM Gateway program.

Initial Analyses. In order to better understand the context surrounding the research questions posed in the grant applications, grant staff are conducting cohort comparisons between specific STEM populations. For instance, how do the demographic, pre-college preparation and STEM achievement patterns differ between Hispanic and non-Hispanic students? How do they differ between low-income (Pell eligible) and non low-income students? Identifying these patterns will not provide deep answers or identify problem areas, but they will help UNM administrators and grant personnel to better refine the approaches to answering the research questions. They will form the foundation for deeper, more meaningful research.

CONTRIBUTIONS MADE TO PRACTICE / LESSONS LEARNED:

- **STEM Gateway Course Reform:** This aspect of the project focuses on internally-generated proposals, which encourages faculty to participate by integration of their perceived needs and challenges with the goals of the project. This approach opens dialogues for discussing the obstacles to STEM student success and the obstacles, perceived or real, that faculty confront when contemplating changes to their courses. Having endorsement from deans and department chairs is important to the process.
- **PLF Project:** The students who work as PLFs tend to fit a model of high-achieving, self-motivated, and deeply committed individuals interested in personal and professional success. Despite their diverse academic backgrounds and professional goals, the PLFs have quite a bit in common. They are all serious students who often have difficulty saying no, desire their success to be measured in tangible ways, and crave the approval of the academic and professional world. They are intelligent, compassionate, and have high expectations for themselves. As high-achievers, PLFs are also young learners who can be overzealous and intense. Their drive to succeed means that even the softest criticism lands roughly. Their need for approval means they can easily lose sight of the big picture. They struggle to establish relationships with faculty and graduate students in the PLF workplace because they often possess a Professor-on-a-Pedestal complex. With those thoughts as context, there are two items we would recommend that future practitioners of the PLF model note.
 - **PLFs benefit from flexibility when it comes to their hours.** In the first few months we noticed PLFs doing extra work and not putting it on their timesheet because it would mean going over their allotted ten hours per week. This “extra work” manifested itself in completing their assigned tasks that, for whatever reason, became more complex at a certain point. For instance, students will hold office hours during a set 1-2 hour period in a particular location. PLFs often stay past their allotted time to help particularly stressed students. This happens most often in the days before an exam.

They will also meet with students that are struggling outside of office hours in one-on-one sessions. They will spend extra time on preparatory work because they know that week's subject matter is especially difficult for students. These extra hours are not substantial- often only one or two over and not for every week. Administrators should take note of this fluidity for the PLFs and respect that it can be tricky for the students to extricate themselves, for example, when they are an in-depth tutoring session. Leaving simply because the time is up can be difficult and counter-intuitive. Administrators should weigh the pros and cons for their individual programs regarding the practice of hard and fast hours allotted to PLFs.

- **PLFs are most effective when instructors are most effective.** When an instructor is authoritative, responsive, and has control in the classroom, the work of the PLFs becomes streamlined and efficient. They move with confidence among the students. They work well together as a team. Their jobs appear easy and fun. However, when instructors are disorganized and do not hold the attention of students, these students may not engage with the lecture. Then, during active learning periods, PLFs struggle to keep up with the number of students who need help because those students did not pay attention to the lecture. Administrators should place an emphasis on three important strategies: (1) train PLFs to work effectively with a variety of faculty styles, (2) train faculty to effectively manage large classrooms, and (3) ensure classroom observations to identify training needs for PLFs. All three of these strategies were emphasized in the creation of the STEM Gateway program, and are orchestrated by the Office of Support for Effective Teaching (OSET) and/or by grant staff. OSET in particular sponsors a wide array of effectiveness training for instructors at UNM.
- **Institutional Research:** The grant's research staff needs to know data and analyses, but just as importantly the institution's data structure (where to find information, who to contact, how to access databases). These pieces matter. Having a close tie and defined relationship with the Institutional Research and Enrollment Management offices is crucial.
 - Technology is vital to collecting and analyzing the data. Unfortunately, setting up this extensive level of technology can be time-consuming. The grant research staff person needs time and training to understand where data sits, what exists, and where to get it if they are new to the university. They need assistance developing the right connections and finding support where needed.
 - In building an institutional research function within the grant, it is important to plan ahead. IR staff dislike urgent requests that they feel should have been asked for ahead of time. In addition, it is helpful to think through the different permutations of data requests before approaching IR staff.



**U.S. Department of Education
Grant Performance Report (ED 524B)
Project Status Chart**

OMB No. 1894-0003
Exp. 04/30/2014

PR/Award # (11 characters): P031C110184

SECTION A - Performance Objectives Information and Related Performance Measures Data (See Instructions. Use as many pages as necessary.)

1. Project Objective Check if this is a status update for the previous budget period.

A.1. Performance Measure	Measure Type	Quantitative Data			
		Target		Actual Performance Data	
		Raw Number	%	Raw Number	%
Objective A.1: Increase student success and retention by developing 12 faculty-driven STEM gateway course-reform projects to ultimately reach at least 7200 students annually (three projects during the first year).	PROJECT	3	/	3	/

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
Each year of the grant period, UNM STEM project will support three gateway-STEM course reform projects, facilitated and overseen by the Office of Support for Effective Teaching	Three course reform projects have been proposed by faculty and approved. These reform projects include the following courses: CHEM 122 (General Chemistry II), MATH 121 (College Algebra), and PHYC 160 (General Physics). Course reform projects include nine full-time faculty members from UNM, two part-time faculty members from UNM, and four faculty members from Central New Mexico Community College.	Goal is in progress: Course teams will begin meeting during Summer 2012, and will implement their first pilot sections September 2012. Combined, this set of reformed courses will eventually impact more than 7,000 students annually at UNM and CNM.

Explanation of Progress (Include Qualitative Data and Data Collection Information)
DATA COLLECTED: This data was collected from course reform applications submitted by teams of UNM/CNM faculty members. Data collected March, 2012.
PRELIMINARY FINDINGS: Response from faculty members and department chairs has been strong during the first year of this program.
DATA UTILIZATION FOR IMPROVEMENT: Reform course applications will be utilized by the Office of Support for Effective Teaching in developing the summer Course Design Institute and subsequent professional development.

A.2. Performance Measure	Measure Type	Quantitative Data				
<p>Objective A.2: Increase engaging, collaborative classroom learning through the training and deployment of undergraduate peer-learning facilitators (PLFs) in large-enrollment STEM gateway courses; to affect at least 3000 students annually (1500 students each semester).</p>	PROJECT	Target		Actual Performance Data		
		Raw Number	Ratio	Raw Number	Ratio	%
		1500	/	1232	/	

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
<p>Anonymous surveys of students in these classes will show PLF-supported collaborative learning meets needs of at least 80% of surveyed students.</p>	<p>Surveys have been administered to all sections supported by the Peer Learning Facilitator program. Analysis of survey responses is currently underway.</p>	<p>Goal in progress.</p>
<p>Beginning in Spring 2012, the STEM PLF program will employ 40 undergraduates per semester to work in 15-20 STEM class sections (potentially impacting more than 1500 learners per semester, 3000 annually)</p>	<p>For the Spring 2012 semester, fifteen PLF supported sections were offered. 27 undergraduate PLFs and three student workers were employed during to implement programs. 1232 students were enrolled in PLF supported courses as of fall census.</p>	<p>Goal in progress. Additional PLF supported sections will be offered in the summer 2012, and a larger set of sections will be offered in the fall 2012.</p>

Explanation of Progress (Include Qualitative Data and Data Collection Information)

DATA COLLECTED: Enrollments were collected from the student information system (BANNER) and analyzed/reported by the STEM Gateway institutional researcher. Data collected March, 2012.

PRELIMINARY FINDINGS: Faculty involvement has been high, and peer learning facilitators appear to be excited about the program. Training programs for PLFs was implemented in the spring 2012, and significant collaborations have been built with other UNM programs who also provide training to students performing peer academic support roles. UNMET OBJECTIVES: We met our goal of at least 1.5 sections. However, we employed fewer undergraduate facilitators than anticipated, and impacted fewer enrolled students than expected. With expansion into summer, and with an increase in the number of PLF sections supported beginning in the fall, we will achieve these goals by the second year of the grant.

DATA UTILIZATION FOR IMPROVEMENT: Student surveys will be utilized to strengthen the faculty MOU for instructors of PLF sections, and in building stronger active learning strategies for faculty members. Surveys will also be utilized in strengthening the training program for peer learning facilitators. Enrollment and success data for PLF sections will be utilized in expanding sections in the summer and fall.

A.3. Performance Measure	Measure Type	Quantitative Data				
		PROJECT	Target		Actual Performance Data	
			Raw Number	Ratio	Raw Number	Ratio
Objective A.3: Increase student retention and success in STEM gateway courses by developing and piloting STEM Student Interest Groups (SSIGs) to shadow sections of at least four gateway courses (two courses during the first year); implementing at least 700 students.						

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
Increase student retention and success in STEM gateway courses by developing and piloting STEM Student Interest Groups to shadow sections of at least four gateway courses (two courses during the first year)	Twelve STEM student interest courses have been scheduled to begin September 2012. These courses will be available to students exploring the following majors: biology, engineering, earth and planetary science, environmental science, and chemistry. SSIG sections will be connected to the following four gateway courses: CHEM 121 (general chemistry), MATH 150 (pre-calculus mathematics), MATH 180 (elements of calculus I) and PHYC 151 (general physics).	Goal in progress. Fall 2012 course enrollment will be reported in the Year One annual report, and Fall 2012 student completion and success data will be reported in the Year Two annual report. Based on the number of sections offered, we are on target to meet all goals.

Explanation of Progress (Include Qualitative Data and Data Collection Information)
 DATA COLLECTED: This data was collected from the student information system (BANNER) and from STEM Gateway program files. Data collected March, 2012.
 PRELIMINARY FINDINGS: We have encountered a high degree of support and collaboration from STEM academic disciplines and from freshman year experience programs within the University College.
 DATA UTILIZATION FOR IMPROVEMENT: Course enrollment data will be utilized to better predict which SSIG sections are most needed/wanted by students. Course success data will be utilized in determining which SSIGs need improvement, and which sections can be leveraged to strengthen the others.

A.4. Performance Measure		Measure Type				Quantitative Data			
Objective A.4: As a consequence of the above objectives (A.1 – A.3), the number of Hispanic and other low-income students receiving Bachelors degrees in life/physical sciences, engineering, and mathematics will increase.		PROJECT		Target		Actual Performance Data			
		Raw Number	Ratio	Raw Number	Ratio	Raw Number	Ratio		
								Raw Number	Ratio
			/				/		

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
<p>These outcomes were not designed to be reported during the first year of the program, as impact will not likely be apparent until year three when 2012 peer learning facilitators begin to graduate. The largest impact will occur when 2012 freshmen begin to graduate at the end of year four.</p>	<p>Though we are unable to present graduation statistics, we are reporting the number and percentage of students served in year one who are Hispanic and/or low SES (primarily through PLF sections): HISPANIC: 579 students, 51.97% of students served LOW SES (2011/2012): 480 students, 40% of students served (defined as Pell-eligible students) HISPANIC OR LOW SES: 830 students, 67% of students served</p>	<p>Goal in progress: Based on our initial findings, we are making excellent progress towards this goal.</p>

Explanation of Progress (Include Qualitative Data and Data Collection Information)
DATA COLLECTED: This data was collected from the student information system (BANNER), and analyzed and reported by the STEM Gateway institutional researcher. Data collected March, 2012.
PRELIMINARY FINDINGS: While it is too early to assess whether this grant will be met by the end of the third year, the number/percentage of Hispanic and Low SES students involved in the program supports our optimism that the goal will be met.
DATA UTILIZATION FOR IMPROVEMENT: Enrollment data will be used to ensure that grant strategies are designed and improved to continue serving primarily Hispanic and low SES students.

A.5. Performance Measure

Objective A.5: Improvement of student persistence and degree attainment in the STEM fields will improve campus-wide retention-rate and graduation-rates as STEM aspirants represent a significant proportion of incoming students.

Measure Type		Quantitative Data			
PROJECT		Target		Actual Performance Data	
Raw Number		Ratio	%	Raw Number	Ratio
		/			/

OUTCOMES EXPECTED IN YEAR ONE

These outcomes were not designed to be reported during the first year of the program, as impact will not likely be apparent until year three.

SIX MONTH STATUS

In preparation for reporting this objective, the STEM Gateway Institutional Researcher is working with the Project Director and other UNM personnel to develop baseline data (split out by ethnicity, SES and other student characteristics).

COMMENTS

Goal in progress: This outcome is part of an institutional effort to drill down deeper into student achievement data. Multiple teams at UNM are currently strengthening university-wide definitions and measures regarding student completion, success and graduation. The STEM Gateway researcher is a key member on these groups.

Explanation of Progress (Include Qualitative Data and Data Collection Information)

DATA COLLECTED: This data will be collected from the student information system by the STEM Gateway institutional researcher.

PRELIMINARY FINDINGS: The need to establish consistent university-wide definitions and better articulated measures is strongly supported by administrators and staff members across campus.

DATA UTILIZATION FOR IMPROVEMENT: This data undergirds the entirety of the STEM Gateway grant. This information will be used to assess the effectiveness of grant strategies; drive the institutionalization of grant programs; and improve specific grant-sponsored services.



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SECTION A - Performance Objectives Information and Related Performance Measures Data (See Instructions. Use as many pages as necessary.)

2. Project Objective Check if this is a status update for the previous budget period.

B.1. Performance Measure	Measure Type	Quantitative Data			
		Target		Actual Performance Data	
		Raw Number	%	Raw Number	%
Objective B.1: CNM and UNM departments will concur on learning outcomes and assessment of learning achievement for essential STEM-gateway courses in order to improve curriculum alignment for transferring students.	PROJECT		/		/

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
This outcome is not designed to be completed or reported until year annual report.	Partnerships with CNM are under development through two primary strategies: (1) course reform projects that include members from CNM, and (2) partnership with the STEM UP program, helping to strengthen the transfer pathway between CNM and UNM	Goal in progress: All three course reform projects include faculty members from CNM, and the STEM UP project is actively building connections and articulations between CNM and UNM.

Explanation of Progress (Include Qualitative Data and Data Collection Information)
DATA COLLECTED: Data is collected from STEM Gateway files (course reform applications) and STEM UP meeting minutes. Data collected March, 2012.
PRELIMINARY FINDINGS: This is a particularly challenging objective as it involves shifting institutional culture at two large institutions. The two strategies for achieving this goal have been widely supported by administrators at both UNM and CNM. During the first year of the program, the priority has been on building relationships between institutions and on developing a great understanding of the gaps that exist between schools. Both of these approaches are on track and progressing solidly.
DATA UTILIZATION FOR IMPROVEMENT: Data collected will be used in designing collaborative approaches that will align STEM learning between CNM and UNM and that will strengthen the transfer pathways for Hispanic and low income STEM students.



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2. Project Objective Check if this is a status update for the previous budget period.

C.1. Performance Measure	Measure Type	Quantitative Data			
		Target		Actual Performance Data	
		Raw Number	%	Raw Number	%
Objective C.1: To develop sustainable capacity to track student achievement, by race/ethnicity and income level (measured by Pell Grant or similar parameter), through the STEM-majors curricula and based on courses taken at UNM or other institutions.	PROJECT		/		/

OUTCOMES EXPECTED IN YEAR ONE	SIX MONTH STATUS	COMMENTS
<p>Establish by Grant Yr. 1 end, query structures in enrollment data needed to build/analyze data sets for:</p> <ul style="list-style-type: none"> *Final-grade-achievement distribution of students in STEM Gateway Courses to track effectiveness of project programs & identify intervention priorities especially for courses where Hispanic and/or low-income student achievement is disproportionately low. *Where in course-by-course progress toward a STEM degree, students change to non-STEM major or depart UNM to identify barriers for pedagogical, focused curriculum and advisement interventions particularly for barriers disproportionately affecting Hispanic and other low-income students. *Course-retaking patterns of students withdrawing or failing gateway courses with prior course grades and entrance-exam scores to identify prerequisite requirements/placement criteria not well aligned with subsequent course expectations. *Success of declared or aspirant STEM majors among transfer students (with focus on Hispanic, low-income and students transferring from CNM) in subsequent STEM courses at UNM to identify needs for inter-institutional curricular and assessment adjustments and to guide articulation and transfer agreements. 	<p>Throughout the first six months, the STEM Gateway institutional researcher has been actively building connections to the UNM Office of Institutional Research (OIR). Her efforts have resulted in open access to UNM enrollment data and student completion data, and alignment with the OIR technology, definitions and data collection procedures. We have begun conducting foundational quantitative research into the achievement of Hispanic and low-income STEM students, in order to build more comprehensive analysis of our research questions.</p>	<p>Goal in progress: We will complete this goal by the end of year one.</p>
<p>Explanation of Progress (Include Qualitative Data and Data Collection Information) DATA COLLECTED: This data was collected through individual meetings with the STEM Gateway institutional researcher and participation in university-wide data collection/analysis working teams. Data collected March, 2012. PRELIMINARY FINDINGS: The efforts of the STEM Gateway institutional researcher are closely aligned with the overall IR needs of UNM faculty and administrators. As such, this initiative has drawn strong support across campus. DATA UTILIZATION FOR IMPROVEMENT: This data will drive all aspects of STEM Gateway program design and improvement. It will also be utilized by UNM for improving other STEM-related programs and services.</p>		



**Grant Performance Report (ED 524B)
Project Status Chart**

SECTION B - Budget Information (See Instructions. Use as many pages as necessary.)

Budget Overview	
Total First Year Budget	\$608,175.00
Total Expenditures October 1, 2011 – March 31, 2012	\$83,881.77
<i>Projected Expenditures April 1, 2012 – September 30, 2012</i> <i>(see next table)</i>	\$409,387
Total Projected Expenditures Year One	\$493,268.77
Estimated Carryover	\$114,906.23

Projected Expenditures April 1, 2012 – September 30, 2012 <i>(referenced in Budget Overview table)</i>	
Personnel (including professional staff, support staff, faculty, students graduate assistantships and fringe benefits)	\$369,094
Central New Mexico Community College faculty participation in Gateway Course Reform projects	\$12,800
Other Direct Costs	\$27,493
TOTAL	\$409,387

REMAINING EXPENDITURES FOR YEAR ONE: By design, the majority of grant expenditures occur during the second half of Year One. The following is a list of major Y1 projects that will occur after the interim report:

- Peer Learning Facilitator courses for summer (student PLF compensation)
- Student Interest Group Curriculum Development and Instructor Training (part-time faculty compensation)
- Student Interest Group Instructor Compensation (September)
- Gateway Course Reform Teams (faculty and professional compensation)
- Summer Course Design Institute
- Institutional Research, re: Hispanic & Low Income Student Achievement in STEM at UNM (graduate student compensation)

RATE OF EXPENDITURES: Through the first year of the grant, it is estimated that \$114,906.23 will be carried over into Year Two. This carryover results from a change in administrative personnel and delays in hiring staff. When originally written, a project director from within UNM was identified and ready to step in starting October 1, 2011. However, after the grant was announced but before it began, this individual resigned from the project. As a result, UNM conducted a search to hire the project director. Likewise, searches for other grant staff members took longer than anticipated to complete. The project director began on February 23rd. The Institutional Researcher and the PLF Coordinator both began on January 18, and the administrative assistant began on January 3. These delays and changes account for \$57,633 of the anticipated carryover. In addition, the

original grant called for STEM Student Interest Groups to be offered in the spring of 2012. However, UNM received word of the Title V award too late to get these courses into the spring schedule. Instead these courses have been scheduled to commence Fall 2012, thereby accounting for \$30,000 of the anticipated carryover.

CARRYOVER PLAN: During Year Two, carryover funds will be used to increase the number of STEM Student Interest Group sections, increase the number of faculty involved in Gateway Course Reform, increase the number of STEM professional development sessions sponsored by the Course Design Institute, and increase our capacity to collect qualitative and quantitative data regarding STEM attainment for Hispanic and low-income students.

SECTION C - Additional Information (See Instructions. Use as many pages as necessary.)

N/A