

July 22, 2005

New Mexico Partnership for Mathematics and Science Education (NMPMSE)

**Summer Meeting
Friday, 22 July 2005
1:00 to 4:00 PM**

The Lounge Meeting Room – Bosque del Apache National Wildlife Range

The meeting was called to order by Interim Co-President Barbara Kimbell at 1:20 PM. Barbara updated the group on Vicente's continuing road to recovery after his shoulder surgery, and on Kurt's new assignment to the Governor's office to manage the state's pre-K program.

Introductions of special guests: Mary Lynne Herr, new Director for NM MESA and Janice Kershaw, National Association of State Science and Math Councils.

Attendees:

Barbara Kimbell, Interim Co-President
Janice Kershaw, NASSMC
Rick Scott, NMSU (arrived about 1:45 from another meeting)
Ted Wolff, Sandia National Laboratories
Mary Lynne Herr, NM MESA
Jack Jekowski, Interim Co-President
Debbie Scruggs, NSF – Tribal Coalition RSI (Santa Fe Indian School)
Anya Dozier Enos – Co PI and Project Director
Richard Nygren - Sandia
Doug Earick, UNM College of Arts and Sciences
Denise Garndner – TVI
Kathy Kinzer, NMSU
Selena Connealy, NM Museum of Natural History
Mary Jo Daniel, APS G-K12 grant coordinator
Trish Morris, NMMNHS
Barb Austin, NMT (Education Dept)
Pleddie Baker, NASA (retired), school teacher, White Sands Middle School

The agenda was shifted to allow Rick Scott to participate in the Town Hall discussions, so the first agenda items discussed were Updates.

Updates:

1. MiNaTeP (Micro and Nano Systems Technology Partnership) – Jack provided an overview of this initiative, one of three technology partnership efforts initiated by the Governor and supported by the Economic Development Department (the other two are HyTeP and BioTeP). Jack is the chair of the Education Working Group of MiNaTeP. The MiNaTep and BioTeP initiatives are

providing a first draft report to the Governor on August 1st at an event in room 311 at the Roundhouse at 1:30. A summary of the proposed areas of support in the education system for MiNaTeP is provided as an attachment, and includes efforts in K-12, community colleges, and our universities, as well as engaging a number of efforts being supported by existing organizations.

2. DOE funding for teacher and professional development – Jack spoke about a special workshop that was held in early May at the Roundhouse, hosted by Senator Bingaman and LANL, which brought together representatives of the University and Education support programs at all of the DOE laboratories across the country. A web site is available that has the pre-meeting materials, and presentations given (<http://bingaman.senate.gov/k12conference/documents.html>). The workshop focused on Teacher Professional Development in math and science. This is a new area of recent interest by DOE, and they were looking at the success of the LANL MSA program and other efforts around the DOE system to see if there were some systemic programs that could be initiated. One tension at workshop that was mentioned is that many of the current programs do not utilize the technical subject matter expertise at the Labs (like SCIADS in the mid-1990's at Sandia). Jack also mentioned that he did not hear any really systemic and sustainable efforts mentioned during the two day workshop. Subsequently, Senator Bingaman has attempted to put forward some special legislation to support increased resources for PD, but because of budget pressures in Washington, they are working right now to just keep existing funding at the Laboratories for educational outreach. Many of the ideas generated at this workshop could be used at the Town Hall we are planning.
3. MSP reports – Four MSPs are under way, two of which started this year (San Juan College and WNMU).
 - a. NMSU - Rick Scott – NMSU has done a three week workshop in Las Cruces – and has other summer academies going in Carlsbad, and El Rito. Camaraderie in El Rito is really good, because there is nothing else to do at night and they have dorms (residential program). Some tensions and frustrations occur because of the diversity of levels of participants. Pleddie spoke to the Las Cruces workshop – indicating that it was very challenging and worthwhile and some people are coming back for more content.
 - b. UNM – Doug Earick – UNM's program is different from NMSU program. The first cohort is in its second year (32 started 28 still in). The second cohort started this summer (23). All are middle school teachers. Feedback is very positive. They are contracting out with APS for mentoring. Most teachers are finding that they only need about nine hours to become highly qualified – so they have shortened the program.
 - c. San Juan College/Western NM University - Rick Scott spoke for Kate Leech from San Juan and Tom Gruska from Western NM University. Kate came down to learn from NMSU – and Tom had participated last year in their program. This is the first year for these two programs. As in the other programs teachers are finding it very challenging.
4. NSF Days (Barbara Kimbell) – November 3-5, 2005 in Albuquerque. NSF Director and Associate Directors will be here to give talks on funding opportunities for the Foundation. Senator Bingaman's Office is orchestrating this event. The main event is November 4th at the Embassy Suites – the same date as statewide NMMSTA Math conference in Portales. November 3rd will be focused on two year colleges (afternoon). November 5th is NSF the NM EPSCoR state conference (the first annual conference). Members of the Partnership are welcome to attend any or all of these functions. More information on agendas and registration particulars will be sent out shortly and posted to the NM EPSCoR website (<http://www.nmepscor.org>). The evening of the 4th there will be a hosted reception at the Embassy Suites. Jack mentioned that the ISEF2007 banquet will be held Saturday evening the 5th. Barbara also mentioned that a new Albuquerque Science "Water Bowl" will be sponsored by CH2M Hill – probably the second weekend of November, more information to follow. November is science month for

Albuquerque's Tri-Centennial celebration'. The third weekend is also the Town Hall and NMAS annual meeting and banquet.

5. Claudia Ahlstrom was not able to make the meeting, but Kathy Kinzer said they are continuing to work on the math standards and should have them done in time for use in this school year.
6. Pleddie Baker talked about the NM FEA (Future Educators of America) annual State Conference scheduled for November 11th and 12th at Eastern. Discussions are going on for the possible formation of a New Mexico state organization. Phi-Delta-Kappa is the national sponsor for this organization. Pleddie has been invited to attend a national meeting. FEA teachers seem to stay longer and have higher levels of credentials.
7. Pleddie has been hired by White Sands Middle School to start a pilot program for a Magnet School in AeroSpace Science. Onate High School is also giving engineering prep classes – including aerospace. NM State is going to start development of new Aerospace degree program – creating a pathway from sixth grade through college. This will tie into X-prize and other space and aerospace activities that are creating a “buzz” for New Mexico. Pleddie is also talking with the Johnson Space Center to obtain information on developing curriculum.
8. Richard Nygren said that (Gregory) Bruce McClure – gbmccclu@sandia.gov is now doing educational outreach for Sandia. Mike Dewitte has been elevated to a broader community management role at Sandia.
9. Mary Jo Daniel said her NSF funded GK-12 program has just finished its first year. Now is the time to hook up graduate students – and she can see a lot of parallels from the previous Sandia SCIAD program. One issue is how do you get teachers and labs/universities collaborating efficiently?
10. Richard Nygren – if collaboration is a problem, we may want to write this into future grants or the Town Hall meeting focus areas.
11. Tom Wolf talked about the Banquet for ISEF2007, scheduled for November 5th. The Science Fair this year was in Phoenix, next year it is in Indiana. The Banquet, to be held in Albuquerque this year will have participants from the Phoenix event. Len Duda and Tom are recruiting judges for our 2007 event. A handout was provided [see attachment]. More information on this remarkable event can be found at (<http://www.isef2007.org>). The Atomic Museum will also have a reception for kids who won at Phoenix. Jack mentioned that he and Russ Fisher-Ives are also trying to get the Governor to support a new award category for Microsystems and nanotechnology.
12. Selena Connealy invited everyone to the final Congress for NM MESA/museum Ecology Research program to be held starting at 9:00 on Saturday July 30th.

Discussion items:

With Rick now in attendance, we were able to engage in the discussion items, with a focus on the Town Hall. In our discussions, Anya said something that stuck with us through out discussions. In discussing these minutes with Barbara Kimbell, we felt it was important to put them here and emphasize them:

Why is OK to say “I don’t do math and science” when it is not OK to say “I can’t read”?

1. **State Town Hall on Mathematics and Science Education.** Barbara and Rick opened the discussion on the Town Hall.

Barbara talked about the NM First process for those who were not familiar with it. See <http://www.nmfirst.org> for more information. NASA (via NASSMC) has provided the majority of

the funding for this effort, with support from DOE, and NMPMSE. Participants will also be asked for a nominal registration fee to help defray meal and break costs. Barbara Brazil, Barbara Kimbell and Rick visited the Glorietta Center last week – we will have almost the entire second floor of the main facility our Town Hall – with spectacular views. The guest rooms look like mid-range hotel rooms, without a telephone or TV. Only about 60 rooms are available on a first come, first served basis (double occupancy is possible for some rooms). Some folks will have to find rooms in Santa Fe or otherwise commute. There may be other groups having meetings at the center at the same time (including some high school students), however, we have arranged to have separate dining and meeting arrangements, so there should be no problem with that issue. We reviewed and refined the proposed agenda (see attached).

Rick passed out a Concept Paper (attached) to outline the goals of the Town Hall based on our discussions at the last meeting. The Concept Paper draft was worked on with Vicente, Kurt, Jack and Barbara. Rick tried to be as succinct as possible, and suggested nine questions that might be used to provide a focus for the panel discussions. In our discussions on this, we felt it was important to narrow the focus of the discussions so that concrete, realizable action items could be developed. Normally NM First has two or three questions per session (about two hours), but in this case we are hoping to reduce that to only one or two. That is not a magic number, and may be modified in the final weeks by the NM First facilitators in conjunction with representatives the Partnership. We need to make sure these questions drive the discussion so that the results are outcome oriented. It is not necessary that every recommendation result in a Legislative Bill, they could be policy recommendations to PED or HED, or others. The goal of this meeting was to further refine and narrow the topic of the Town Hall so that it was manageable and produced concrete results.

Following this introduction a lively and lengthy discussion ensued that took the entire remaining time of the meeting. Some highlights from that discussion are provided below:

Discussion/comments: Discussion on possible combining of questions. What is meant by “Standards”, “Requirements”? We need to make sure all acronyms are spelled out, e.g. STEM. What are the results we are looking for? First paragraph has the broad outcomes – concrete short term strategies, based on research to serve as a basis for longer term, sustainable strategies. We outlined the research paper at the last meeting – lots of data from MSP proposals. It is important to keep “community”. Perhaps one way to do this is look at broad categories and generate a question or two for each

- Students and student outcomes
- Teacher preparation and professional development
- Community involvement
- Policy issues
- Integration/standards

Another approach might be to list areas that we are not going to cover – include this in the invitation and preparation documents and briefing materials so that people do not have expectations that are not realized. Long discussion on how important this issue is – we need to scope the Town Hall to make the discussions manageable. Another thought – several questions but only one theme per session, e.g., Professional Development as a theme, then a number of questions related to that. Suggestions:

- We need to focus on Math and Science (not technology or engineering) – OK if technology is a facilitator in a recommendation (e.g. distance learning, Internet access, etc. – but limit those discussions to its use as strictly as a tool). It is recognized that

technology, however, is a popular topic and ultimately is the application of solid math and science curriculum.

- Should we focus even more by identifying Professional Development in math and science? One issue – do we lose sight of ultimate goal of student achievement?
- Long discussion on what is really needed – an educated population in math and science so that critical decisions for future generations are made based on science and data – not emotion or heresy. To do this, don't we have to have, for sure, quality teachers in math and science in every classroom?
- What is the problem? Our society is becoming increasingly illiterate in math and science while we are becoming increasingly dependent upon that. [refer to Science and Engineering Indicators – Public attitudes]
- We could ask questions of stakeholders, or policy makers.
- Overall theme? Enhancing math and science literacy in New Mexico. How do we get math and science to the public?
- Science will be tested in 2007 under NCLB – they are not going to pass as of right now. (bad thing is we are focusing on a test – but the bottom line is we are focusing on science literacy)
- Our schools are going to have to demonstrate proficiency in science in two years – what things do we need to do to ensure we meet that challenge? So for that question – **just raising awareness is important** – we need to muster the resources necessary to do that. What do we need to do to change the system? We have had that kind of emphasis on reading (the traditional “literacy”) – how do we do this for math and science.
- How do we get everyone to care? One way is the testing, but are there other, more sustainable and fundamental ways to engage our students, parents, teachers, policy makers, communities? How can we leverage museums, business partners, etc.? **Why is OK to say “I don't do math and science” when it is not OK to say “I don't read”?** (Anna)
- Why is no one talking specifically about student achievement gaps?

We agreed that we need to really focus the theme – the group agreed to pursue questions for two focus areas: Professional development (Mary Jo), and awareness (Doug Earick). The discussion leaders in this area will draw upon Partnership members and get back to the membership within two weeks with a set of proposed questions. Student achievement was also suggested as topical area because of the 2007 NCLB requirement.

Editor's note: on the way back to Albuquerque Jack and Barbara, the Interim co-President's brainstormed the afternoon's discussions and have the following recommendation to the Partnership for a construct of the Town Hall discussion sessions:

- *Use two or more of the top Awareness questions developed by Mary Jo's team in the morning – this will set the stage from a “big picture” perspective to answer the question that Anya posed and was highlighted earlier in these minutes.*
- *The two afternoon sessions would then be Professional Development (question developed by Doug's team) and a question on Student Achievement as the last session of the afternoon. The Student Achievement question will be akin to this: “In 2007 New Mexico (and all other states) will be required under NCLB to measure student achievement (proficiency) in Science. We are currently doing very poorly in this area with respect to national assessments – what steps*

are necessary for New Mexico Public Schools to get from where we are today to being proficient in Science by 2007?

Rick quickly discussed other issues related to the Town Hall including who should participate. Suggestions included students. It was suggested that Mary Lynne might be able to provide the names of MESA students and alumni in college so that we could have one of each on each panel. Currently every member of the Partnership is invited, as well as members of LESC, teachers of math and science and other stakeholders. (see attached list – please provide comments, additional names, and contact information for any suggestions)

2. Strategies to approach new Secretary of Higher Education – what, if anything do we want to do?
This item was postponed to next meeting due to time constraints.

The meeting was adjourned at approximately 4:45 PM.

Thanks everyone!

Jack Jekowski and Barbara Kimbell
Interim Co-Presidents

Attachment – MiNaTeP Draft Education Support Initiatives

C. Education

An investment has to be made to ensure a future pipeline of workers from the state's public education system and higher education institutions for the myriad of high technology jobs that this new industry will demand. The participants in the Education focus group identified existing programs that might be linked to a statewide Micro/Nano Educational Initiative, and identified other individuals or organizations who may be interested in participating or could offer assistance.

- There is an immediate need to stimulate the growth of Micro/Nano systems in New Mexico by attracting world-renowned researchers to our universities. Industry representatives indicate that we have not achieved a critical enough mass here in New Mexico to compete with other areas of the country, even with the significant investments being made at Sandia (CINT and MESA) and LANL (CINT). Some efforts at our universities have already been successful, including the creation of the UNM Microsystems Chair by PNM (Dr. Andy Salazar), and work being done through NM EPSCoR in its recently re-funded statewide NSF research program in nanotechnology at several of our universities and community colleges (such as San Juan). EPSCoR successes have included the hiring of Seamus Curran, Nanotechnology Component Director at NMSU. We are also working with NM EPSCoR and NM MESA to identify opportunities and funding mechanisms to support under-graduate student research positions at our universities so that K-12 students can see a clear path into our university programs with employment opportunities while they are in college. Additionally, our proposed support of the MTTC operations at UNM in Albuquerque is also an important pathway for our post-secondary students, giving them an opportunity to not only work with researchers from academia, but also the private sector.
- There is also a need for high-level technicians and engineers in this expanding area. The Community College system will be critical to help fill this gap, and we already have some initial success at TVI with the creation of their new NSF-funded Southwest Center for Microsystems Education (SCME), which is the first NSF designated Advanced Technological Educational Center in Microsystems in the country. TVI and others are also working with UNM Gallup on a community-based initiative called the Advanced Technologies Regional Network (ATRN) that already has some PED and DOL funding to create articulated technology pathways from high school to community college, including Microsystems. However, much more needs to be done on a state wide basis to ensure that students in the more rural areas of the state will have opportunities to pursue these careers. MiNaTeP proposes to promote and help initiatives like these become more visible across the state through its marketing efforts, support for teacher preparation, workshops and science fairs. We would also work with the newly established Office of Workforce Training and Development (OWTD) to ensure our workforce strategies are aligned with important state and federal programs such as WIA.
- It is also agreed that the long term prospects of maintaining and growing this economic sector will depend most strongly upon “filling the pipeline” – ensuring that

our younger students in K-12 have the proper foundational educational opportunities, particularly in mathematics and science. Our state standards must drive curriculum design that is created in the context of today's multidisciplinary world (such as AFRL's SPACE program - Students Planning And Conducting Engineering), and is rigorous enough to ensure our graduating high school students can enter degree programs at our universities without the need for remedial courses. In addition, quality teachers and adequate laboratories, classroom supplies and other infrastructure are necessary to ensure New Mexico's entry into this highly technical field. In this context, MiNaTep is proposing to support one or more micro/nano technology high schools, professional development for mathematics and science teachers, and promotion of this technical discipline through support of science fairs and other public events.

To leverage existing efforts in the state for maximum benefit, MiNaTep has already established a number of connections to organizations and programs that are focused on this technical discipline. These include engagement with: Bernalillo High School to create a career pathway through the Bernalillo Microsystems Academy with support from Sandia and TVI; Los Alamos National Laboratory's Math, Science Academy (MSA) and new program initiatives by DOE for K-12 mathematics and science teacher Professional Development; Albuquerque Public Schools Math, Science and Technology Partnership; the NM Partnership for Math and Science Education (NMPMSE) through NASA's Linking Leaders program to develop the plans and support for a statewide Town Hall on Mathematics and Science Education to be held this fall in Glorietta, facilitated by NM First; NM EPSCoR to understand how additional support might be provided for their K-12 nano-education program; the NM Business Roundtable for Educational Excellence (NMBREE) to further develop concepts of career pathway models already successfully demonstrated in IT and Health Sciences; the Governor's Business Executives for Education to ensure that quality practices and data-driven decision making is incorporated into all aspects of education in New Mexico; the Micro and Nano Technology Education Foundation (MANCEF); and the Intel International Science and Engineering Fair (ISEF2007) to be held in Albuquerque in May of 2007 to promote this discipline in an international venue.

These and other on-going activities in New Mexico offer the promise to raise Mathematics and Science education to a priority level in the state, with a focus on the new industries of the 21st Century, ensuring that future generations of New Mexicans can participate in this new economy. MiNaTep can serve as a value-added intermediary for these efforts, and provide assessments of their impact to the Governor's Office for promotion of our education system outside the state to attract new businesses and investments.

Attachment – ISEF Judges Application Form

Intel International Science & Engineering Fair Albuquerque, NM ~ May 13-19, 2007



Judges Needed!

About 1200 finalists, the winners from Affiliated Science Fairs in the 50 United States and over 40 nations are expected along with thousands of visitors, journalists, and several Nobel Laureates.

We need more than 1,000 science, engineering, and industry professionals to serve as judges.

We need Category Chairs to coordinate recruitment of judges in each of the 14 categories in which students can compete. Please let us know if you would be interested in being a Category Recruitment Chair.

Because projects are often at the graduate or higher level, judges must possess a PhD, or equivalent degree **OR** extensive related professional experience.

Judges for ISEF 2007 are urged to participate in Regional and/or the State Science & Engineering Fairs to gain experience prior to the International Fair. Please call the ISEF 2007 office at 505-867-2007 for Regional and/or the State Science & Engineering Fairs contact information.

Please join us as a judge for this important event by providing the following information:

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Work Phone: _____ Home Phone: _____

E-Mail Address: _____

Highest Degree: _____ Major/Minor: _____

Area(s) of Expertise: _____

Years of Experience: _____

Judging Category(s): *Please circle your category(s) of choice.*

BEN/SOC/CI BIO BOT CHEM COMP EARTH ENGIN ENVIR MATH MED/MLTH MICRO PHYSICS SPACE ZOO TEAM

You can E-Mail your contact information along with any questions to: **You can mail your contact information to:**

Len Duda
ISEF 2007 Judging Committee Co-Chair
Sandia National Laboratories
leduda@prodigy.net

ISEF 2007 Judge Recruitment
IF, Inc./ISEF 2007 Headquarters
724 Camino del Pueblo ~ Bernalillo, NM 87004
(505) 867-2007

For information about Judging Categories, please visit the following website:

<http://www.sciserv.org/isef/students/rules/rules4.asp>

Attachment – Draft Agenda
Draft Agenda for Discussion
State Summit on Mathematics and Science Education
November 18-20, 2005

Thursday, November 17, 2005

- **4:00 to 5:30 Registration and check-in for those staying at Glorietta**
- **6:00 to 8:00 Pick up dinner in Dining Hall – Santa Fe Room (seated dinner)**
 - **Possible guest speaker and panel review of background research document**
- **8:00 to 8:45 breakout into panels – meet facilitator and recorder, discuss process for Friday and Saturday, and introductions**

Friday, November 18, 2005

- **6:30 to 8:30 – Pick up breakfast in dining hall take to Santa Fe Room**
- **7:30 Welcome and rules of engagement**
- **8:00 – 9:30 Panel Session 1**
- **9:30 – 10:00 Break**
- **10:00 – 11:30 Panel Session 2**
- **11:30 to 1:30 Lunch – Pick up lunch in Dining Hall and take to Santa Fe Room – short interim report out by panels**
- **1:30 to 3:00 Panel Session 3**
- **3:00 to 3:30 Break**
- **3:30 to 5:00 Panel Session 4**
- **6:00 to 7:30 Dinner in Santa Fe Room – Panels identify top five Action Items**
- **7:30 – 9:00 Convene in Main Hall for short presentations of top five Action Items from each Panel – facilitated discussion and consolidation of recommendations to top 10.**

Saturday, November 19, 2005

- **6:30 to 8:30 – Pick up Draft report and breakfast in dining hall take to Santa Fe Room – Panels meet to develop amendments and lobby with other panels**
- **8:30 – 12:00 – Convene for Plenary Session in Main Hall**
Note: breaks and check out will be ad-hoc during this session – please time your absence from the room accordingly (have someone cover any amendments you might want to make)
- **12:00 Adjourn – folks can go to NMAS annual meeting in Albuquerque as necessary**

Attachment – Concept Paper

Barbara, can you paste the latest version here?

Jack

Current List of Proposed Invitees

2. List of proposed Summit participants and their affiliations.

The following list of proposed participants includes individuals from business, public policy and education who have an interest and background in STEM education. They represent much of the diversity of New Mexico.

Current Members of the NMPMSE

<u>Name</u>	<u>Category</u>	<u>Email</u>
LaJuana Coleman	AP	lcoleman@nmhu.edu
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Mike Silva	Bus	msilva@rgec.org
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Edward Spivak	Business	ed@nmoia.org
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Mary Earick	ECED	marys@unm.edu
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Selena Connealy	Museum	SConnealy@nmmnh.state.nm.us
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Current Non-Members of NMPMSE

<u>Name</u>	<u>Affiliation</u>	
TBD	Qwest	Business
TBD	NM Chamber of Commerce	Business
Jon Barela	Intel	Business
Charles Blanchard	High Tech Consortium of So NM	Business
John Carey	Assoc of Commerce & Industry	Business
Steve Collopy	Adobe Precision Gear, Inc	Business
Reese Fullerton	Office of Workforce Trng & Dev	Business
Bob Gallagher	NM Gas & Oil Association	Business
James Hinton	Greater ABQ Chamber of Comm	Business
Larry Langley	NM Bus Roundtable for Ed Excel	Business
Don Lee	NM Cattle Growers Assoc	Business
Sherman McCorkle	Technology Ventures Corp	Business
Alex Romero	ABQ Hispano Chamber of Comm	Business
Tony Trujillo	Phelps Dodge Mining Co.	Business
Erika Valdez	Econ Dev Corp of Lea County	Business
Kathy West	Ft Sumner Community Dev Corp	Business
Paul Tattter	NM Explora	Museum
TBD	2 community college MESA student	Education
TBD	2 high school MESA students	Education
TBD	2 mid school MESA students	Education
TBD	2 university MESA students	Education
Teri Brown	ABQ Schools	Education
Valentina Ortega	Belen Schools	Education
Kathy Price	Bloomfield Schools	Education
Elmer Guy	Crownpoint Institute of Technology	Education
Amanda Forkasdi	East Mountain High School	Education
Laurie Carroll	East Mountain High School	Education
Brian Every	Espanola Schools	Education

Cheryl Coyle	Gadsden Schools	Education	
Stanley Rounds	Hobbs Municipal Schools	Education	
Pam Abreu	Las Vegas City Schools	Education	
Brenda Becker	Magdalena Schools	Education	
Frank Renz	NM Assoc of Community Colleges	Education	
David LaPre	Council of University Presidents	Education	
Jose Griego	Northern NM Community College	Education	
John Preston	Quemado Schools	Education	
James Lujan	SW Polytechnic Institute	Education	
Marshall Berman	Coalition for Excell in Math & Sci	Public Policy	
Leticia Chambers	Commission on Higher Education	Public Policy	
Veronica Garcia	Secretary of Education	Public Policy	
Miley Gonzalez	Secretary of NM Dept of Ag	Public Policy	
Liz Gutierrez	Governor's Education Advisor	Public Policy	
Diane Hamilton	NM House of Representatives	Public Policy	
Jerry Hanks	Governor's Science Advisor	Public Policy	
LaDonna Harris	Americans for Indian Opportunity	Public Policy	
Eduardo Holguin	NM NEA	Public Policy	
Richard Homans	Secretary for Economic Dev	Public Policy	
Mary Kay Papen	NM Senate	Public Policy	
Gay Kernan	NM Senate	Public Policy	
Lillie Mae Ortiz	NM School Boards Assoc	Public Policy	
Rick Miera	NM House of Representatives	Public Policy	
Fred Nathan	THINK NM	Public Policy	
Cynthia Nava	NM Senate	Public Policy	
Pauline Rindone	Legislative Ed Study Committee	Public Policy	
William Sharer	NM Senate	Public Policy	
Mimi Stewart	NM House of Representatives	Public Policy	
Thomas Swisstack	NM House of Representatives	Public Policy	
Christine Trujillo	NM Fed of Ed Employees	Public Policy	
Dub Williams	NM House of Representatives	Public Policy	
Peter Winograd	Office of Ed Accountability	Public Policy	
Katherine Leach	San Juan College	CC MATH	
Lorenzo Gonzales	Math Science Academy	Project	
Betsy Frederick	SuperComputing Challenge	Project	bfrederick@zianet.com
David Kratzer	SuperComputing Challenge	Project	dhk@lanl.gov
Celia Einhorn	SuperComputing Challenge	Project	celia@pobox.com

Teachers: To recruit Math & Science teachers we might send information to the following listservs:

nmctm@nmsu.org (NM Council of Teachers of Math)

science@manzano.aps.edu (Science Teachers)