Exploring Linear Functions (ELF) is a workshop that is open to K-8 teachers and school and district administrators. Participants will be given the opportunity to look more deeply at both the mathematics of linear relationships and the way that they play out in the K-8 curriculum (with a particular focus for grades 6-8). This workshop begins at 8:00 a.m. on Wednesday, May 30 and goes through 4:00 p.m. on Friday June 1. Participants will have an opportunity to explore mathematics designed to help deepen their own mathematical knowledge and then will have an opportunity to analyze curriculum materials and see videos of students working on mathematics related to the theme of linear functions. On the last day both groups will meet together to finish writing a position paper about opportunities for New Mexico teachers to develop their mathematical knowledge for teaching. Participants in the ELF workshop will receive hotel accommodations and a stipend of $250 as well as breakfast, lunch, and a banquet dinner on Thursday evening.

What do NM Mathematics Teachers Need to Know? (NMT) is a conference for people interested in the mathematical education of teachers in the state of New Mexico. This working conference is modeled after the PMET workshops that are run by the Mathematics Association of America and funded through the National Science Foundation. The goal of this conference is to bring together teacher educators from around the state to discuss in detail what mathematics teachers need to know and how we can help them develop that knowledge.

This conference begins at 1:00 p.m. on May 29 and ends at 4:00 p.m. on June 1. In the morning of each full day there will be a lesson taught by one of the New Mexico MSP partnerships to the approximately 20 teachers participating in the Exploring Linear Functions workshop. During this time, the other participants will observe the lesson. After the lesson, the two groups will split up and observers will discuss the lesson and issues in teacher education while teachers will work together on issues relevant to their own classrooms. Participants in the NMT conference will receive hotel accommodations as well as breakfast, lunch, and a banquet dinner on Thursday evening.

We have two overarching goals for the NMT conference:

1. To explore what it would mean for teachers to have a profound understanding of linear functions through planning, teaching, observing, and discussing three mathematics lessons.
2. To write a position paper on pre- and in-service teacher professional development in mathematics: what are the big mathematical ideas teachers need to acquire and what experiences do they need to have in order to acquire them?

1 Funded by grant from NM Public Education Department’s Mathematics and Science Partnership Program
Below is a tentative agenda for the NMT conference; we are still working on a more detailed agenda for the ELF workshop.

**Tuesday, May 29**

1:00 – 1:30 Welcome and Introductions—Kristin Umland and Adriana Aceves  
1:30 – 2:30 National picture and perspectives.  
2:30 – 3:30 Small group discussion of reading  
3:30 – 3:45 Break  
3:45 – 4:30 Large group discussion of reading  
4:30 – 5:30 Planning for Wednesday morning’s lesson

**Wednesday, May 30**

8:00 – 10:00 First lesson related to linear relationships  
10:00 – 10:15 Break  
10:15 – 12:00 Debrief (teachers split off)  
12:00 – 1:00 Lunch  
1:00 – 2:00 Overview of courses and programs for teachers in New Mexico, federal recommendations for courses for teacher preparation in mathematics.  
2:00 – 3:00 Small group discussion of MET conceptual recommendations in mathematics.  
3:00 – 3:15 Break  
3:15 – 4:30 Large group discussion of MET document.  
4:30 – 5:30 Planning for Thursday morning’s lesson

**Thursday, May 31**

8:00 – 10:00 Second lesson related to linear relationships  
10:00 – 10:15 Break  
10:15 – 12:00 Debrief (teachers split off)  
12:00 – 1:00 Lunch  
1:00 – 2:45 Discussion of course content for mathematics for teachers courses.  
2:45 – 3:00 Break  
3:00 – 4:00 Begin to draft position paper  
4:00 – 5:00 Planning for Friday morning’s lesson  
6:00 – 8:00 Banquet. Talk by Rick Scott and Claudia Ahlstrom, PED

**Friday, June 1**

8:00 – 10:00 Third lesson related to linear relationships  
10:00 – 10:15 Break  
10:15 – 12:00 Debrief (teachers split off)  
12:00 – 1:00 Lunch  
1:00 – 4:00 Teachers return to the group. Finish the document with teachers.