

CHAPTER 5

EMELI IN COLORADO: EQUITY WORK IN A REFORMING STATE

INTRODUCTION

The story of EMELI in Colorado defies simple narrative. The state is vast, the work is complex, and the team carrying out that work is large and diverse. In telling the story we have been selective rather than comprehensive. We emphasize key events and activities that help convey the nature and scale of equity work carried out in a state context, and provide only a few examples – nothing like an inventory – of work in classrooms, schools, districts, and universities. We hope these examples help illuminate the work as it is carried out more broadly. We also focus on the work and the words of a handful of team members, again hoping that their work illuminates and represents the work of the many.

Parts of this account also belie the complexity involved in addressing issues that underlie inequities in education – especially complexities related to the emotional intensity and institutional barriers that make equity work difficult to sustain. We give more emphasis to what the Colorado EMELI team did and to what they accomplished, and less emphasis to the fits and starts and struggles they felt as they were doing it. We made this choice because we believe the Colorado case serves so well as an illustration of what a large team can do in a large state – and we have tried to characterize key conditions that enabled them to do it.

I. ON THE FRONT LINE

Vivian Elliott is an African American woman with a doctorate in organizational change and years of experience working as a teacher, a principal, and as a consultant in education reform. Her journey with equity issues and the EMELI project is emblematic of EMELI's reason for being. Elliott takes seriously America's democratic ideals, and believes that students' pursuit of happiness depends on mathematical achievement. She became committed to equity in mathematics because of her own and her children's experiences in school. That commitment has been fueled by disturbing national statistics on poor and minority children's chances of entering and succeeding in higher-level mathematics courses and later entering well-paying jobs that require a background in mathematics. "The access data is disappointing, as is the participation data," she says, "and the achievement gaps are scandalous."

Elliott served for two years as a board member of CONNECT, Colorado's state systemic mathematics education reform initiative.¹ When NSF notified CONNECT that they were not addressing equity adequately, Vivian agreed to serve as Equity Consultant for the project. Even as she began this new position, however, she had decided that she could not work on equity issues much longer: "I had checked out of this work. I had made a conscious decision that I would not be on the front line again around issues of race, bias – ever. I have been asked to take on positions – one in the largest district in this state – to provide leadership in equity, and I said definitely no. And let the word go out that that is not my calling, and for many, many reasons. You get labeled, you get fanfare, your family takes a hit. It is not worth it. And you don't see any progress."

It was in this same year that the national EMELI project began. Educators from around the nation came as teams to UC Santa Barbara to participate in a two-year series of year-round workshops designed to prepare leaders who could take on issues and problems related to equity within the mathematics education reform movement. In Colorado, ten educators who were participants in CONNECT and other reform projects signed on as the first cohort from the state. Elliott was called upon to assist in making this a diverse team of participants and in the process decided to join the team herself. Participating in the EMELI project as a member of this first team renewed Elliott's flagging spirit. "My lesson from EMELI is that I can do the work and feel like I make a difference without being consumed, if I get support. Without support I will not do this work, and I know that."

Colorado proved to be fertile ground for EMELI. The first Colorado EMELI cohort, working as a close-knit team, planted the seeds by infusing what they had learned from the EMELI project into their personal teaching and administrative work, and into the various reform projects of which they were members. They also encouraged other colleagues to participate in EMELI until, ultimately, ten teams totaling 60 people had participated in the national project. These educators have diverse racial backgrounds and occupy a wide range of educational positions around the state. They came to EMELI with personal commitment to making a difference where it counted – on the front line in the struggle for educational equity.

In EMELI they found new perspectives and reform tools, and they also found support and encouragement enabling them to carry out what they came to call "equity work." These team members – Jeff Farmer, Dolores Pitman, Marta Cruz-Janzen, Marilyn Taylor, Vivian Elliott, Art Terrazas, Becky Lenhart, Pam Duran, Janet Kiyota, Mary Lou Van Voorhis, Monica Fleischhausen, Joslyn Owens, and dozens of others – have continued to carry out equity work in Colorado wherever their individual professional positions have taken them. Furthermore, these 60 Colorado EMELI members have supported one another and carried out equity work throughout the state as a coordinated network with its own identity and visibility. In 2000, some four years after the first Colorado teams' participation in EMELI, Vivian Elliott, Jeff Farmer and Dolores Pitman are the co-coordinators of what has become known as the Colorado Coalition for Equity in Education (CCEE), the new generation of Colorado EMELI.

The story of EMELI in Colorado is about the many individuals who have a profound commitment to equity, but who found it nearly impossible to work on complex and emotionally-charged equity

¹ Funded by the National Science Foundation (NSF) from 1993-98.

issues with real effect until they were given particular supports for doing so. It is about the ways in which EMELI introduced a different “toolkit” of activities into high-profile mathematics education reform projects, enabling those projects to begin addressing equity issues they had not been able to address through attention to the discipline, its teaching, or even to equity. It is about the leadership and organizational infrastructure that are needed to carry out equity-related reform work across the vast social, educational, and geographic landscape in a state such as Colorado – and about the personal alliances that enable people to carry it out at all. It is about what equity work looks like as it plays out in the nooks and crannies of that landscape, and what it means to the people involved.

II. COLORADO’S EDUCATIONAL LANDSCAPE AND THE PROBLEM OF DIFFERENTIAL ACHIEVEMENT

The great albatross weighing down the nation’s education system is the persistent pattern of differential achievement across racial groups. This inequity is particularly dramatic in mathematics, and it functions as a barrier to a range of life opportunities for students of color. Fewer high school students of color enroll in the mathematics classes that serve as “gatekeepers” to college entrance, and the percentage of persons of color who enter mathematics-related careers is far lower than their proportion in the general population. Colorado is no exception.

Colorado

Colorado’s schools serve close to 700,000 K-12 students. Compared to most of the rest of the nation, Colorado has a small percentage of students of color: in 1996, 72% of the state’s students were white. Even so, the numbers of students of color have increased dramatically – 47% – in the past ten years. The fastest-growing and largest ethnic group is Hispanic/Latino, which constituted 19% of the population in 1996. There are an estimated 30,000 English language learners in the Colorado Public Schools, about 5% of the total student population. Of the state’s teachers, 91% are white.

Students are distributed unevenly over Colorado’s dramatic geography. Approximately 54% of the state’s public school students attend a school in one of the fifteen metropolitan districts in the Denver area in the middle of the state. Many of the state’s ethnic minority students are concentrated in the San Luis Valley (Alamosa, Del Norte) in the desert terrain of south central Colorado, or in the Front Range public schools in the north central part of the state (Ft. Collins, Greeley). Only 5% of students reside in the 86 most rural school districts in the state, which range from the outlying Poudre Canyon (former home to the Ute Indians) to the central Rocky Mountains to the Continental Divide.

Like many states, Colorado initiated a “standards-based”² reform effort in the 1990’s. Colorado’s failure to educate poor and minority students was framed as part of the rationale for this reform:

² When the term “standards-based” is used in this report, it refers to the standards prepared and published by the NCTM: *Curriculum and Evaluation Standards for School Mathematics* (1989), *Professional Standards for Teaching Mathematics* (1991), and *Assessment Standards for School Mathematics* (1995). It should be noted that some states have adopted standards inconsistent with the NCTM Standards.

“Even more troubling are the statistics for minority youngsters, who constitute the fastest-growing segment of Colorado’s school-age population. Hispanic and black students score significantly lower than white students on standardized tests and are more than twice as likely as white students to have to repeat a grade in elementary school, to drop out of high school, and for those who enroll in college, to leave without earning a degree.”³ A major goal of the Colorado reform effort was to ensure that all students, particularly those at risk of underachievement, meet state standards.

As a local control state, Colorado could not mandate curriculum or even develop curriculum frameworks for districts. Instead, Governor Romer’s approach in 1995 was to adopt standards in mathematics and science, and to challenge local districts to meet or surpass them by 1997. Governor Romer also created a more rigorous teacher licensing program, requiring teachers to meet professional standards that included the educational demands of diversity.⁴ He further publicly supported initiatives that addressed inequity in the system. Romer is quoted in the foreword to the Equity Framework for the state⁵ as saying “there are evolving societal needs and a growing body of research that suggest the need to discuss and address serious issues of race, class, and gender bias related to curriculum, pedagogy, and preschool through higher education policies.”

Colorado originally identified mathematics as the core subject area to be addressed first, but the Colorado Basic Literacy Act of 1996 changed that priority, leaving mathematics and other content areas in the shadow of reading instruction, particularly in the elementary grades. The public also began to voice concern that the new teacher preparation system made it too difficult to become a teacher, and new legislation created alternative, less rigorous routes into the profession. Romer’s progressive education reform agenda lost momentum, and in 1998 a new, more conservative governor was elected.

The policy document *Professional Standards for Colorado Educators* created under Governor Romer held democratic ideals and successfully educating a diverse student population as professional standards for teachers and administrators. Under the new governor, the Colorado Department of Education has recently changed the document so that it no longer includes those standards as requirements for new or renewing teachers and administrators.

Educational reform and the goal of equity

The spate of recent mathematics education reform initiatives supported by the National Science Foundation (NSF) and guided by the National Council of Teachers of Mathematics Standards are imbued with the rhetoric of equitable opportunity and achievement. In Colorado, there were three major reform initiatives in the 1990’s beyond Governor Romer’s own task force for state standards. Two of these focused on mathematics and all identified equity as part of their rationales and as a major goal.

³ CDE State Board of Education *Policy Statement on Standards-based Education: The Structure of Colorado’s K-12 System*. (Source: CDE website)

⁴ Legislation set forth these and other professional standards in the document *Professional Standards for Colorado Educators*.

⁵ Developed by the CONNECT project and Colorado EMELI leaders.

One of these reform initiatives, **CONNECT**, was Colorado's NSF-funded State Systemic Initiative in mathematics from 1993-98, and was the state's major vehicle for standards-based reform. Another, the **Rocky Mountain Teacher Education Collaborative (RMTEC)**, is an NSF-funded reform effort directed toward student-centered, inquiry-based curricula and instruction in mathematics and science, developed with sensitivity to the educational needs of women and people of color. RMTEC is organized as a collaborative effort among six institutions of higher education and many local school districts. The third reform initiative, the **Colorado Partnership for Educational Renewal (CoPER)**, is one of 16 sites of the National Network for Educational Renewal (NNER) founded by John Goodlad. Formed in 1986 and including 15 school districts and seven institutions of higher education, CoPER's mission is the simultaneous improvement of teacher preparation programs and K-12 schools. Although not specifically focused on mathematics, the Colorado Partnership holds the improvement of educational equity as one of its core principles.

Reforms such as these, however – across the nation and in Colorado – have left many advocates of equity frustrated. Designers of mathematics education reform projects have typically assumed that “standards-based” teaching of the subject would carry along with it more equitable practices; that is, they assumed that this reform with a democratic mindset would, *in itself*, address the phenomenon of inequity. But the reality has been that discipline-based reforms (and reformers) have accumulated very little practical knowledge about how to identify what “equity issues” really are, much less how to actually address them. One state-level mathematics education reform director in Colorado said this about the dearth of available technologies for dealing with the problem of inequity: “People were becoming very concerned that they should do something, and they didn't know what to do or how to do it... Everyone is quite eager to have some solid, substantive ways to start getting at these issues.”

Nearly all of the participants in Colorado EMELI were participants in and often leaders of one or more of these reform projects. Whether they were K-12 science and mathematics teachers or university professors, school or district administrators, Colorado Department of Education administrators, or directors of these reform projects, they came to the national EMELI project searching for ways to make good on their personal and reform project goal of redressing inequities in the education system.

III. PUTTING EMELI ON THE REFORM MAP IN COLORADO

The Colorado EMELI leaders have learned that personal work and individual leadership are necessary, but not sufficient, to achieving equity. Vivian Elliott says, “On the policy level, I believe sustainable equity work cannot be done without a systemic perspective. We can make a dent, but if it is to be sustainable, we have to have a perspective of how systems are organized, how they change, how they don't change, who effects change and all of that.” Elliott and Farmer have acted over time as the lead engineers of Colorado EMELI. Dolores Pitman, Marilyn Taylor, Marta Cruz-Janzen and other EMELI leaders have provided support and promoted EMELI efforts. Through the course of their work, they have constructed a two-part infrastructure that was able to support equity work at the individual, school, district and state levels. One part involved infusing Colorado EMELI leadership into the existing institutional scaffolding of the three high-

profile state reform projects in mathematics. Another part, which evolved simultaneously, was the statewide Colorado EMELI network, which developed its own identity and its own strategies for sustaining equity work beyond the life-spans of the other reform projects.

A home for Colorado EMELI

The earlier Colorado EMELI teams were not drawn from a single district, as is typical in other states. Rather, they were drawn from the statewide pool of educators affiliated with Colorado CONNECT, the Colorado Partnership for Educational Renewal and the Rocky Mountain Teacher Education Collaborative. All three projects espoused equity as a central goal. Furthermore, Governor Romer headed the Steering Committee for CONNECT at that time, giving CONNECT special prominence in the state policy environment.

The presence of these projects created immediate opportunity for visible equity work. The projects welcomed Colorado EMELI members because they had found themselves unable to address equity issues through their mainstream work on mathematics. In fact, CONNECT had been “feeling the heat” from NSF about their lack of attention to equity and were also sensing frustration from the schools. At the same time, Colorado EMELI leaders acted as a kind of special interest group within the projects to make sure that equity was always on the front burner.

This symbiotic relationship was embodied in the position Vivian Elliott held as Equity Consultant for CONNECT. When she drew on the personal alliances and know-how of her fellow Colorado EMELI leaders to fulfill her role, equity work in CONNECT began to shift from an abstract assumption embedded in standards-based education to a concrete, structured, identifiable, and intentional effort. Along the way, however, Elliott and EMELI faced struggles. CONNECT’s contract for Elliott was late in coming and decisions by the governing committee sometimes contradicted word-of-mouth agreements, resulting in a shortage of funds for some events. Elliott’s clerical support was reduced from three days to one day a week, making a strapped situation ever more precarious. Despite these difficulties, Colorado EMELI had found a formal institutional home within this high-profile reform project.

Later on, when NSF funding for CONNECT ended, they were able to find a second institutional home when the Colorado Partnership for Educational Renewal agreed to sponsor the coordination of Colorado EMELI work by giving Elliott office space and a formal affiliation with the statewide reform effort. In return, the Colorado EMELI teams contributed to the equity work of the Partnership through individual, local, and statewide efforts.

Equity work in the state reform projects

The first Colorado team went to work immediately. They gathered together the second two Colorado EMELI teams for a meeting to begin establishing a larger group identity, and they began to work with the Steering Committee of CONNECT. Together they produced a statewide awareness-raising “Equity Summit” in September 1997, which served as CONNECT’s annual conference.

The summit, entitled “Weaving Equity into Systemic Reform: Rhetoric to Action,” was held over two days. The Steering Committee carefully targeted the 180 participants so that all levels of the system – policy-makers, reform project leaders, superintendents, principals, and teachers – would be represented in the effort to raise awareness, make connections, and unify equity work. The Director of CONNECT issued personal invitations to superintendents, seen as key players in policy and practice. Governor Romer himself kicked off the event with a reception for an invited group of 40 attendees at the Governor’s Mansion.

In the keynote address, national EMELI Director Julian Weissglass presented the “Perspectives on Equity,” along with national data to illustrate existing inequity in achievement in mathematics. Weissglass used the dyad structure to involve participants in relating these issues to themselves and their work. Participants then joined breakout sessions – for example, “The role of leadership in weaving equity into the school environment” and “Examining beliefs about diversity and practices in the mathematics classroom” – many of which were facilitated by Colorado EMELI team members.

In a personal experience panel on the second day, five panelists described how experiences in mathematics and science had affected their present lives. In dyads and small discussion groups, participants connected what they heard from the panelists to their own lives. Following a round of breakout sessions, guest speakers presented case studies of teacher practice in science with students of diverse backgrounds. Participants engaged in dyads after each of the cases, exploring such questions as: “Have you ever had an experience like the one in the case?” and “What is our responsibility to understand students’ perceptions of their own ethnic identity?” Before leaving, participants completed action plans on which they stated what steps they were prepared to take – such as action research groups on equity, study groups on equity, facilitating equity resource groups, or equity support groups.

Following this high-profile launch, the Colorado leadership team pursued state-level equity work along several avenues, with an eye to both practice and policy. As part of their CONNECT work, Vivian Elliott and Janet Kiyota compiled the summit participants’ action plans into a resource bank that CONNECT could draw from in responding to requests for assistance made by districts and schools across the state. In doing so they created, in their cramped office, what was in effect a statewide clearinghouse that fielded calls and served as a repository of articles, books, and videos that could help anyone in Colorado with equity issues.

Word began to circulate through the state that there was a group available to help districts in their attempts to address issues of equity. Superintendents and others made requests for clearinghouse resources; also, they asked for assistance in designing and carrying out professional development programs for teachers and administrators. Through CONNECT, the Colorado EMELI leadership provided professional development workshops and strategic planning assistance for many districts, including the Denver Public Schools, the Harrison School District in Colorado Springs, District 60 in Pueblo, School District 5 in Adams County, and the Cherry Creek Public Schools.

In the five Adams districts that are BOCES⁶ districts (Adams 1, 2, 14, 27, and 50), for example, Colorado EMELI leaders were asked to add an intensive two-day strand on diversity to the annual BOCES professional development conference. Also, in the Harrison district, eight team members worked collaboratively with district staff to design and conduct a professional development series for district administrators in which they explored all the elements needed in district policy to address equity (for example, the EMELI Perspectives, legal issues, hiring and promotion, systems change, and consideration of subject matter content and pedagogy, including mathematics). Colorado EMELI leaders also introduced district curriculum coordinators to EMELI structures (i.e., dyads, support groups, and PEPs), helped them examine the district's own achievement data, and led them in a Socratic Seminar on Jeannie Oakes' study of tracking modeled after a similar EMELI activity.

At the same time the Equity Clearinghouse was supporting these kinds of equity work at the level of local districts, Colorado team members were also working within CONNECT to shape state policy. In 1997 members of CONNECT's existing Equity Working Group and Colorado EMELI team members with assistance from Julian Weissglass worked together to revise the state's *Equity Framework: The Dialogue Among Stakeholders*. That framework, which contains perspectives and language borrowed from EMELI, is currently available from the Colorado Department of Education in English and Spanish as a resource and guide to dialogue around issues of equity.

The Colorado EMELI teams found that infusing an equity focus into existing reform projects and high profile activities – such as the CONNECT project and its annual conference – was an effective and expedient way to raise awareness on a large scale. They applied this same strategy with the Colorado Partnership for Educational Renewal by helping to design and conduct CoPER's Colorado Teacher Leadership Institute in February 1998.

The Colorado Teacher Leadership Institute is a statewide professional development day that teachers attend annually as part of their ongoing affiliation with CoPER. The 1998 event conducted by the Colorado EMELI team brought together approximately 300 teachers. It began with a presentation by students about work they had done (with a grant from Goals 2000) to understand their district standards. Eight Colorado EMELI leaders contributed to the program, facilitating small group discussions, conducting breakout sessions (often using the dyad structure), and facilitating cultural awareness activities for participants. In breakout discussions teachers addressed such topics as “Time and opportunity for ALL students – providing structures and instruction to meet the needs of all learners,” “Equitable assessments in standards-based environments,” and “Using data to promote equity.” In one session a Colorado EMELI team member combined a view of the stages of systemic change with EMELI strategies for “producing change in people, practice and policy” – an EMELI adage.

Just as conducting the Equity Summit for CONNECT had led to ongoing equity work supported by affiliation with that project, the same was true of the link Colorado EMELI formed with the Colorado Partnership for Educational Renewal. As part of her affiliation with CoPER, for example, Vivian Elliott was invited to coordinate the diversity strand of a two-year Kellogg

⁶ Boards of Cooperative Educational Services (BOCES) are centers – often in rural areas – that provide services for multiple schools or districts in a geographic region. Similar in function to County Offices of Education, BOCES provide such services as professional development, administration of Eisenhower funds, and curriculum services.

Foundation grant CoPER received to promote diversity in teaching through a mentor teacher program. The teachers Elliott worked with became established within CoPER as the Partnership Equity Mentor Cadre. In 1999-2000 this Cadre received funding from the U.S. Department of Education to carry on this work for three more years in a project called "Quality Teachers for All."

Now called the Equity Cadre, this group expanded to 21 members from 15 districts in 2000, and will take on one or two more teachers each year. Cadre members work as mentors within their districts, making presentations and working with other teachers, including novices. Because Cadre members are all from Colorado Partnership schools, they work very closely with their local universities' teacher education programs and can mentor the teacher candidates placed in their schools. Being attached to CoPER has thus meant that these lead teachers have a larger ripple effect for their equity work than they would if they were independent of an existing reform network.

The Colorado Partnership also sponsored "A Conversation on Equity," a meeting of Partner School teachers, administrators, and IHE Partners in August 1998 that was intended to inform planning for the Colorado Partnership project. Vivian Elliott facilitated the three-hour session in which Partner School members and Colorado EMELI team members explored the current state of equity in schools, the desired state, and the resources that are available and still needed. In this case the EMELI members were not only creating an activity that enhanced the reform project, but were also influencing the project's mainstream priorities and plans.

As individuals, Colorado EMELI team members also made themselves visible and heard at the "regular" activities of the reform projects. For example, CoPER sponsored a symposium designed to introduce action research into schools. The presence and voices of several Colorado EMELI leaders who were also CoPER members served to keep equity explicitly in the foreground as participants formulated their inquiry projects. Similarly, Colorado EMELI leaders were among the 200 participants who attended the annual CoPER Summer Institute in 1998. The overall purpose of this summer institute, like that of past ones, was to advance the goals of the Partnership – to foster inquiry, discuss progress made toward achieving democratic ideals in the schools, and provide professional development for K-16 teachers.

The third reform project, the Rocky Mountain Teacher Education Collaborative (RMTEC), served to a lesser degree as a formal institutional sponsor. However, the existing network and activities of RMTEC created important opportunities for equity work. The statewide RMTEC Coordinator, not an EMELI participant, believes that the most important contribution of the Colorado EMELI team's work has been to provide a model – for RMTEC leadership themselves – of how to create an atmosphere of equity. She describes the team members' skills in facilitating conversations on controversial topics in RMTEC meetings and conferences: "It is important to have people with these skills to facilitate group processing and communication." She adds that members of the RMTEC at all levels – principal investigators, faculty, teachers in residence, students in teacher licensure programs – have been touched by EMELI.

RMTEC was designed with the hope that it would bring more minorities and women into careers in mathematics and science teaching, but like many reform projects with equity goals, RMTEC

leadership was struggling to find strategies for doing this. It was the Colorado EMELI members who helped make some real changes. For example, EMELI leaders helped RMTEC faculty revise the content of university courses in mathematics and science, and offered workshops and seminars for the “re-tooling” of university faculty so they could address issues of equity in their classes. Also, they provided professional development for their colleagues; for example, Colorado EMELI member Art Terrazas at Aims Community College offered a two-year series of workshops on equity to the staff.

On the other hand, Colorado EMELI struggled in its work with RMTEC. RMTEC was a complex project administratively and the difficulty of doing equity work only added to the challenges already faced by the project’s eight principal investigators (PIs). Simply communicating the purpose of EMELI and its ways of working to the multiple PIs was a large piece of the work for the Colorado EMELI leaders. Some of the PIs held the attitude that RMTEC had already addressed equity issues by sending faculty to the national level EMELI workshops. Others like Marilyn Taylor, who was an EMELI participant, embraced the principles of EMELI in their RMTEC work. Taylor worked closely with teachers-in-residence (for example, Jocelyn Owens, an African American high school mathematics teacher and also an EMELI participant) to support them in mentoring RMTEC Scholars to become exemplary secondary mathematics teachers.

Mathematics and equity reform hand-in-hand

The weaving of EMELI into Colorado’s three major reform projects clearly generated mutual benefits. For the mathematics projects, EMELI provided leadership and coordination, as well as powerful new professional development strategies and tools, that enabled the reform projects and the districts they served to address equity in a way they had been unable to do through attention to the teaching of mathematics. For EMELI, the project affiliations provided greater legitimacy and recognition than they could have gained on their own, as well as a ready, functioning network of districts, universities, and individual educators with whom they could communicate and which served as established points of entry for equity work.

The lessons here are manifold – and not the least among them is the lesson embodied in the roles of Vivian Elliott and other statewide leaders: The symbiotic institutional relationships grew out of the strong and strategic personal leadership of individuals; these people are deeply committed to the substance and goals of the work supported by the alliances they were able to create with Julian Weissglass and the national EMELI network.

Colorado EMELI develops its own identity

However crucial the reform projects were as a platform, they alone could not sustain equity work in the way EMELI members envisioned it. A Colorado EMELI network – with its own identity, structures, and goals – evolved as a parallel infrastructure. Members of the first teams met early on for the purpose of blending together as a larger group with a distinctive identity and visibility. Over time an ever-stronger network evolved, reflecting the personal alliances that developed among 60 members who worked together and gave one another moral support, and also reflecting the ongoing relationships they enjoyed with the leaders of the national EMELI project. As

funding from the Colorado mathematics education reform projects and from the national EMELI project came to an end, Colorado EMELI leaders cultivated their statewide network more strategically, structuring it as a leadership renewal effort that could keep their project alive and keep equity at the forefront of mathematics education reform in Colorado.

Becoming a state network

When districts called on Vivian Elliott and the equity clearinghouse to provide professional development or strategic planning, she in turn called on her fellow Colorado EMELI leaders. She relied on the fact that there were 60 of them around the state who not only had personal commitments to equity, but also a shared language, the same kind of formal training in EMELI structures and access to readings and other resources.

Individual Colorado EMELI members also called on one another when they initiated equity projects in their own areas. In Fort Collins, for example, Chris Romero, a member of the northern team, and seven other Colorado EMELI colleagues garnered grant funding for local workshops and retreats. These brought together administrators in the Poudre district with staff from the Front Range Community College, Colorado State University, and the University of Northern Colorado. The initial events created opportunity for more equity work through individual roles and leadership. For example, Romero became co-chair of his community college sub-committee on diversity, which hosted several more equity awareness sessions at the community college for faculty, staff and students. Romero also co-facilitated retreats for the Facilities Service Department and the Business Service Department at the college.

Similarly, Jane Martin and Terry Uyeki, Colorado EMELI members from southwestern Colorado received a grant to conduct professional development in math and science in connection with UCAN (Utah, Colorado, Arizona, New Mexico), the NSF-funded Rural Systemic Initiative for the Four Corners area. They called on several other Colorado EMELI participants to help plan and carry out this work, including university professor Jeff Farmer, whom they felt could speak especially strongly about the importance of equity in mathematics instruction.

In Weld County, Colorado EMELI leader and former county curriculum coordinator Pam Duran spearheaded a long-term professional development effort funded by Title VI funds. She called on seven other Colorado EMELI leaders to carry out Equity in Education Leadership Institutes, which were five month-long series of workshops on issues related to race, gender, homophobia, and professional leadership in equity. In the first year, 35 teachers attended, and in the second year 38 teachers, administrators, and counselors participated. Following the second series, the participants met at a retreat co-directed by national EMELI Director Julian Weissglass and Vivian Elliott with the Weld County EMELI team serving as support group leaders. This effort in Weld County has had a number of ripple effects. Pam Duran has moved on to Boulder, where she coordinates equity and multicultural initiatives for that district. Scott VanLoo – a second-generation “home-grown” Colorado EMELI leader – was asked to take over Duran’s leadership role as multicultural coordinator for Weld County. VanLoo has continued to offer the county’s Equity Institute, which gathered together 40 more educators in its third year.

In these and myriad other cases, individual Colorado EMELI members were able to carry out local equity work because they could draw from a local, statewide and *national* pool of like-minded and skilled colleagues. The Colorado network developed capacity to provide coordinated services across a broad geographic and educational landscape, as well as the ability to provide moral and technical support to individual members. In fact, the effort to build a formal, identifiable Colorado EMELI network stemmed in part from Colorado leaders learning the lesson that both coordination and personal support were needed to sustain equity work at state or local levels.

Colorado EMELI launches statewide leadership development

The mathematics education reform projects served as solid institutional homes for Colorado EMELI only to the extent that they were well funded. For Vivian Elliott, the end of CONNECT funding and the move to a less well-supported position with the Colorado Partnership, in fact, created real personal hardship. Continued financial support for Colorado EMELI network leadership through the reform projects and the participating districts has been present, but spotty. Although many districts provide some stipends, Colorado EMELI leaders have tended to draw from personal resources – both time and travel – in order to carry out this work. Personal commitment can sustain such effort only for awhile.

Furthermore, although Colorado EMELI leaders were happy to see their work institutionalized, they remained concerned that the spotlight on equity might dim if they embedded EMELI fully into existing mathematics education reform projects. As much as those projects provided an audience for their work, Colorado EMELI leaders also knew that the issues underlying equity – racism, classism, gender bias, institutional and social processes that sort and classify students inequitably – remained painfully resistant to change, and therefore all too easy to slip back into the shadows. They knew that strong, well-supported, and *ever improving* leadership was necessary to carrying out equity work over time.

At the national level, EMELI leaders had begun to involve Colorado EMELI leaders in creation of the next generation of EMELI, the National Coalition for Equity in Education (NCEE). This effort included a vision of state affiliates, including a Colorado Coalition for Equity in Education (CCEE). The national initiative further reinforced the Colorado leaders' impetus to strengthen the network that had grown up around the equity work of Colorado EMELI members. Vivian Elliott, Jeff Farmer, Dolores Pitman and several others around the state set out to form the CCEE.

The CCEE aims to “grow” more leadership for equity within Colorado by coming as close as possible to replicating the original EMELI model. While many of the original 60 Colorado EMELI members remain active, opportunities for ongoing growth are as important to the vitality of the network as they are for individuals. To this end the CCEE leadership team created “Colorado EMELI,” a series of intensive, long-term leadership development institutes available to interested districts.

In the Fall of 1999, the CCEE offered its first leadership development series, consisting of three three-day residential workshops held over nine months. Twenty-six participants from seven districts attended, with financial support coming in the form of \$1500 fees from participating

districts for each participant, as well as the Colorado Partnership's agreement to handle all administrative functions. The Greeley and Boulder districts each sent eight participants and the others sent one to three people. The institute group is ethnically diverse, with 18 of the 32 staff and participants being African American or Latino/Hispanic. Scott VanLoo, a Colorado EMELI institute leader, is already building links between these participants and the larger group that he and Pam Duran have been building through the Weld County series. The CCEE leadership group is planning a second "Colorado EMELI" series for 2000-01. Six districts have shown interest in participating on a fee-for-service basis. As of this writing, the Colorado EMELI leaders are continuing to seek funding for their state Coalition (and for the NCEE).

The most recent effort of the leadership team has been to try to form an advisory group of Colorado EMELI leaders representing different areas of the state and different levels of education. The advisors would meet quarterly for the purpose of helping to shape and direct the statewide effort. Colorado EMELI members see formation of this group as a logical next step in preserving a team-based approach to leadership at the state level and drawing together resources to sustain the network. Without a stable source of funding, however, forming this group has been a serious challenge because members must leave their classrooms without funds for substitutes and travel to meetings at their own expense.

CCEE activities are currently self-supporting, with direct costs paid by participating districts. Clearly, the early local work of EMELI teams has created a "market" in the state for more intensive leadership development. The challenge, however, is to locate a stable source of funds to sustain the all-important state-level network leadership.

IV. PORTRAITS OF EMELI LEADERS AT WORK

While equity work has been carried out in Colorado in structured ways – through professional development and strategic planning – that work has also drawn on and been animated by the *personal* energies of individuals holding a variety of positions some of which were quite influential. Colorado EMELI members have tried to bring to life the EMELI perspectives in their own work and workplaces, both in the stances they have taken toward equity issues and in their use of EMELI communications structures. And while state network leaders have played a vital role in coordinating large-scale work, it is the personal alliances among team members that have provided the technical, moral, and emotional support they needed to actually transform their own practice.

Mathematics teacher leadership in equity

Diana Martin has been teaching mathematics at Rocky Mountain High School in Fort Collins for seven years. Martin, who is white, is one of two women in her 10-teacher mathematics department. After completing her first year of EMELI, Martin heard that one of the calculus teachers at her school was preparing to retire. She considered the fact that she had just completed her MA in mathematics and had all of the prerequisites for teaching calculus, the course that many characterize as the "gatekeeper" that, historically, has filtered girls and students of color out of higher education. "The only reason I wouldn't teach calculus is because I wouldn't want to

take the risk. Now, is that a female thing?...So I have no excuse – and EMELI just forced me into saying, ‘Diana, you should do this.’ So I am.” Martin is the first and only woman in her mathematics department to teach calculus.

Being an advocate and role model for girls has been important to Martin since she began teaching: “I wanted to be a mathematics teacher so that girls could go into mathematics and science.” EMELI made Diana particularly aware of the importance of structuring her calculus class so that it demands equal participation of both boys and girls. Martin perceives that girls tend not to recognize class participation as an equity issue. To address this, she organizes her instruction around “active participation – for me, that is equity. It is not letting the loud people take over the class, but expecting everybody to participate. The girls don’t want to take the risk of using calculators in front of the class, and I just say ‘It’s your turn, you have to do it.’ I keep telling them, ‘I lost out on a lot because I was the shy little girl back then, and I am not going to allow you not to speak. Everybody goes to the board. It is my job to make you look good when you are up there, but you need to go. It is a friendly place to be and you will get there.’ They are starting to do it more and more.”

Martin says her EMELI experience has also influenced how she interacts with individual students, particularly those who are struggling. When she noticed, for example, that one of her students, “a unique guy,” was displaying signs of Attention Deficit Disorder (ADD), she made the decision to work with him individually. “You could see that he was very bright, you could see that he is ADD. I think some people would have automatically said, ‘This kid is trouble,’ whereas I said to him, ‘It looks to me like you may know this [math]. Why don’t you take this test for me and show me.’ I just wanted to see what his mathematics skills were and I wanted to talk to him individually and just kind of get to know him a little better. He really appreciated that. It is EMELI that has changed me because I probably would never have talked to the student that way. I learned this thing in EMELI that I love so much – it is that educational change will never happen without relationships. So that is very important to me, I try to build relationships.”

Being part of EMELI has moved Martin to take on leadership roles within her school and district that she would not have otherwise accepted. She has participated in a district equity committee where she was able to draw from what she gained from EMELI to create a “tool kit” of resources for the district’s use. Through the Colorado Partnership she has also been invited to speak to pre-service teachers and to make presentations to other K-12 educators about equity issues. She also received a mini-grant from Project F2OCUS⁷ which she used to support middle and high school girls in mathematics, to promote equity through classroom projects, and to empower students by helping them identify equity issues in their learning environments.

Martin says that EMELI provided her with concrete tools she could use to carry out these leadership roles and with information she could pass on to others. Her capacity for professional leadership is limited only by her belief that classroom teaching is her top priority.

Jeff Farmer is a white mathematics professor at the University of Northern Colorado (UNC), who began his 16-year career as a high school mathematics teacher. He was a member of RMTEC when he was asked to sign on for the two-year series of EMELI workshops. Farmer says

⁷ Females Focusing on Careers in Under-represented Sciences

he was ready for the EMELI experience, one that he knew would begin with personal work: “I liked the idea that it was going to get personal. I didn’t want business as usual. I had been concerned with race my whole adult life, and most of what I’ve seen [in reform projects and professional development] is unproductive.”

Farmer says that EMELI gave him a way to address issues of racism head-on. “I think I was ready to do that but no one had told me how to.” This has changed his professional life profoundly, though in ways he says he can’t “quantify.” He now feels comfortable talking with his students about race. “Somehow, something in my relationship with students was gone that was sort of in the... [way] before. I think it was just that, okay, I can envision talking to and I have asked African American students, ‘Okay, how are you doing on this campus? This is a really white place – are you doing okay here?’ I could never have asked that question of students before.”

EMELI also linked Farmer to colleagues with whom he can talk directly about issues of equity. “Being part of EMELI has meant that I have developed close relationships with some colleagues, not necessarily other mathematics professors, but with some colleagues at the college and university level, some of them are people of color, around dealing with these issues, and I can call them up and talk with them about things. For me somehow it is a great relief, because I felt this lack for a long time.”

Both Farmer and his colleagues see his role in equity work as extremely important in part because he is a white male. “I have had my colleagues and my friends who are people of color on the team tell me that it makes a big difference when I stand up there with them. In some ways, that is a negative thing. Why should people pay more attention to me than they do a person of color? But I think people find it easier to dismiss a person of color, on the one hand. On the other hand, there is also a tendency for white people to think it is “their” problem and “they” need to fix it, rather than recognizing that no, it is a problem that is created by us. What we like to do as whites is we like to forget about the work that we have to do, and in fact we don’t want to think about racism. Having a white person stand up and talk about racism cuts through a number of those layers and raises a number of those questions.”

Farmer has been a stalwart and very active Colorado EMELI leader at the state level, helping to plan many large-scale equity events, traveling across Colorado to present workshops for his Colorado EMELI colleagues, and now co-coordinating the Colorado Coalition for Equity in Education. He has also helped the national EMELI project in their effort to create the National Coalition for Equity in Education, and has traveled to other states to do equity workshops.

Becky Lenhart is a white high school mathematics mentor teacher at Overland High School in Aurora. She has brought the EMELI perspectives and structures into her classroom and also into her school through workshops and other assistance to colleagues. After Lenhart worked with 40 mentor teachers at her own school, then 12 teachers in other district schools, her principal released her from one course so she could continue her equity leadership. She has since led another course for 52 teachers.

Lenhart gives all the credit to the EMELI structures and the support she receives through the national and state network: “I would never have done any of this work had I not been part of EMELI and had the powerful experience I did with Julian and the other staff and participants. It was life-changing for me and I will truly never be the same. The materials and structures I use in my classes and presentations are all from EMELI.”

Art Terrazas, of Native American descent, is an instructor of developmental mathematics at Aimes Community College in Greeley. Like Lenhart, he has brought EMELI to his colleagues through the series of professional development workshops he coordinated with help from three Colorado EMELI colleagues.

Equity work in teacher education

Marta Cruz-Janzen is a mixed race professor in the Department of Secondary Education at Metropolitan State College in Denver. Like Diana Martin, Cruz-Janzen received a mini-grant from Project F2OCUS. She used the funds to create a new pre-service teacher seminar on equity, a credit-bearing 15-hour course linked to the social foundations curriculum.

Cruz-Janzen formally framed the seminar around three goals: to extend key concepts introduced in education foundation courses and the pre-service field experience focusing on issues of equity in education; to develop students’ ability to address practices that impede the learning of students from groups underrepresented in key areas, including mathematics and science; and to facilitate students’ development in the seven “key dispositions” designated in Colorado’s professional teacher standards.⁸

The group of 16 teacher candidates met for five evenings in the fall of 1998. The sessions, which were similarly structured, were led by Cruz-Janzen with the help of Colorado EMELI members Jeff Farmer, Marilyn Taylor, Monica Fleischausen, and Joslyn Owens. One session, for example, opened with dyads in which the seminar participants discussed questions, concerns, and issues they had about leadership. Then four members of the seminar group, along with Farmer, participated in a personal experience panel, speaking to three questions: “What are some of your early negative or positive learning experiences? How did they affect you educationally and personally? How do they continue to affect you?” Following the EMELI model, the class engaged in dyads after the PEP to speak about individual reactions to it.

The group then divided into small discussion groups for a conversation that focused on the article, “How Children Fail.” They addressed questions that prompted personal engagement with ideas presented in the article: “What thoughts or feeling came up for you when you read this article?” and “How have negative or positive learning experiences affected your learning of mathematics/science/other areas?” The whole group then viewed a video, “*Fear and Learning at Hoover Elementary School*,” which portrays one year in an immigrant girl’s elementary school experience. After that, support groups met again to explore two questions pertaining to EMELI’s perspective about the importance of personal leadership: “What steps can you take in regards to leadership?” and “How can we continue to support each other’s leadership?” Each support group

⁸ *Standards for Colorado Educators*, July 1, 1994, Colorado Department of Education Licensing, Denver, CO.

reported some of their ideas to the whole group. The seminar meeting concluded with a short video, "*It's In Every One of Us*," followed by reflective writing.

The seminar was well received by the students, who continued to meet in their support groups the following semester. Cruz-Janzen offered the seminar again in the Fall of 1999 and invited some participants from the initial group to help facilitate the meetings. One of Cruz-Janzen's personal goals for the new seminar was to nurture prospective teachers' hope about equity and give them the sense that addressing inequity in education is "doable." Her fellow Colorado EMELI members aided her in this by showing, through their participation, that EMELI provides collegial support for the hard work of addressing equity. Cruz-Jansen saw real transformation in her students over the course of the seminar, as they explored their own experiences in support groups and felt the support of four other Colorado EMELI leaders: "I would say that generally speaking, [the student teachers] really got a good sense that this is doable. I think that at different levels individuals either felt frustrated or anger, and initially we had some statements about hopelessness. But towards the end, they began to see that there was more hope, especially the realization that you don't have to do it by yourself. I think the biggest realization of the group is that we are all in this together, that we benefit from our work together and that we also hurt from what has been done."

Marilyn Taylor is a white Professor of Secondary Education at Metropolitan State College Denver (MSCD), as well as being Co-Principal Investigator and Diversity Team Leader for RMTEC. Taylor has worked regionally with other RMTEC institutions, and nationally as a support group leader for EMELI Cohort 5. She has made presentations at conferences, written articles and proposals for grants to fund scholarships, initiated the Multicultural Mathematics Web Page at MSCD – all activities that were related to issues of equity in mathematics or science. She helped facilitate the Equity Leadership Study Group led by her colleague and fellow EMELI member, Marta Cruz-Janzen. She has also been working with a Vietnamese-American future English teacher to develop curriculum to more effectively teach Vietnamese-American students.

Taylor regularly integrates the EMELI structures into her own seminars about field experience and student teaching. Her personal leadership also extends to university practice and policy: "With my colleagues I am a white voice who will speak for equity when that voice is needed. I conduct faculty development sessions, advocate for faculty of color in retention, promotion, and tenure decisions. Morale is very low at MSCD and faculty of color feel undervalued or un-listened-to. Sometimes on issues of race I can be a helping voice. I am committed to be that, to take action steps even when it is uncomfortable. I am an EMELI convert in this respect. I stand up and act much more now on my beliefs of equity than I used to."

About EMELI, Taylor says: "The need for change began to seem more pressing and more central in my life because of EMELI. EMELI helped me develop the contacts and personal strength, and even some strategies to do that. This whole experience has helped to bring more meaning to my career and to my life. I treasure it. The people I met at EMELI, in being like-minded, are also powerful friends and supporters for me in developing the courage to act. I am not alone."

Jenny Piazza is a white Associate Professor of Education at the University of Southern Colorado in Pueblo. Beyond using the dyad structure in her teaching, she has her pre-service students

examine textbooks to identify bias and has them identify how their own lesson plans address issues of equity. Piazza is also part of the Pueblo EMELI team's effort to work on equity together with Pueblo District 60. For example, she worked with the district's Eisenhower coordinator (and fellow Colorado EMELI member) to link pre-service education with the district's agenda for equity. And she is helping to create a jointly sponsored summer institute for pre-service teachers, modeled after the EMELI institute. Piazza says, "since EMELI, equity is woven into everything I do."

Mary Lou Van Voorhis is a Native American assistant professor of education at Metropolitan State College in Denver. Like her colleagues, she introduced EMELI structures and equity issues into her teaching of pre-service teachers. After her first try with a personal experience panel on gender equity in her seminar, she said this: "It was a little rough to get volunteers but the dialogue that followed was a tremendous learning experience. This class is made up of first-generation college students. They need a lot of reinforcement and positive learning experiences. The structures provide a great environment for this."

Equity work in school district leadership

Pam Duran was curriculum coordinator in Weld County for 17 years. She says EMELI reshaped her thinking about the nature of professional development needed to make classrooms more equitable environments for learning. "I have to tell you, before EMELI, I was at a very superficial level of staff development – 'Why don't you play this name game,' just superficial activity-based stuff. I was a very beginner in this whole thing. But meeting Julian Weissglass, I realized that the ultimate goal was not to provide handouts of great activities, but to see whether you can have people do lots of reflection on what their teaching philosophy is, and what their style is in terms of building relationships with students, and if they carry any biases that they might not even be aware of but are there subconsciously. That is when I started. I realized I needed to do more training and more self-reflection."

Using Title VI funds, Duran spearheaded the development of the district's series of year-long professional development workshops and retreats for administrators and teachers. She says she used "all of Julian's structures and information" to carry out this work – which involved cultivating local leaders such as Scott VanLoo, who could pick up the reins when she left after one year of using the EMELI model in district professional development.

In her parting words to the Weld County School Board as she left for Boulder, Duran said that she was still not seeing an increase in the achievement rates or higher-level course enrollments for students of color. She told the Board that what was missing was a critical examination of how teachers' expectations affect student achievement. "We need to go there – to teachers' expectations – because we have strived for over 20 years with one reform effort after another and we haven't shown success." She argued that only by addressing equity issues personally and collectively could they begin to remedy the systemic ills of inequity.

Dolores Pitman is Coordinator of Educational Equity in the Mesa County School District #51 in Grand Junction. A Latina, Pitman is the only EMELI team member in her district. At the end of

her first year of EMELI workshops, Pitman made a risky and courageous move: after three years in her district position, she submitted a letter of resignation to the district because of what she felt was lack of support for her equity work. With the mainstream work of the district, she perceived that her position “was more of an afterthought than a well thought out position with time frames, accountability, and support.” She also felt she was receiving differential treatment: her clerical help had been cut from half time to none, her workload had been increased, and she was told that she could not continue with EMELI because she was out of district for too many days. In fact, she later had to forfeit her vacation days to attend EMELI workshops.

Pitman knew hers was not an isolated case. Recruitment and hiring practices, student retention, and student achievement gaps all pointed to inequities in the district. Furthermore, the dropout rate for Latino students – the largest minority group but still only 12 to 14% of the population – was disproportionately high. Within the local community, a politically conservative one stratified by ethnicity and economic status, Pitman felt some guardedness about advocating for these equity issues, even in her position as Equity Coordinator for the district.

Near the time that Pitman resigned, some members of the community jointly wrote a letter to the Superintendent pointing out the district’s lack of success historically in advocating for equity; for example, in the past four years, no fewer than five upper level district administrators of ethnic minority backgrounds had left, all under negative circumstances. Furthermore, in direct response to Pitman’s letter of resignation, some Colorado EMELI team members also wrote letters to the Superintendent in her support. Pitman feels that these letters made a difference because the district “saw me as more than one person.” This support permitted her to see that although her Colorado EMELI team members were geographically removed, she was not alone in her efforts to address inequity.

Coincidentally, the Superintendent himself was becoming aware that some colleagues of his were suffering from discriminatory treatment. He responded to these multiple pressures, inviting Pitman to return to the district as a member of a new district administrative leadership team that was convened to forge a long-range plan for addressing issues of equity in the district. The Superintendent invited Pitman to recommend some readings for the team that would give them some shared concepts and language for their work. She drew on her EMELI experience for this, recommending among other resources, Kohl’s *I Won’t Learn From You*.

In her renewed position at center stage for equity issues in the district, Pitman has organized a new “Symposium on Educational Equity” for 20 administrators and local university faculty to bring visibility to the effort and galvanize her colleagues’ attention. She has also introduced the dyad structure to monthly district administrator meetings, where it continues to be used. (In a November 1999 meeting that focused on culture and diversity, for example, administrators talked about these questions in dyads: “Who or what was influential in helping me define my culture?” and “What elements of my culture do I really value?”) More recently, Pitman designed and led a five-day workshop on diversity for staff developers in the district, a group that included the district coordinator of gifted and talented programs, the assessment coordinator, two literacy coordinators, the math/science coordinator, and the director of curriculum.

The Equity Symposium created a ripple effect when a university professor who had attended it invited Pitman to come to his class of pre-service teachers. Pitman led two sessions for the class, one organized around an article by Julian Weissglass, “Teachers Have Feelings: What can you do about it,” and the second in which she used dyads for student discussion of dropout data from the district. She recalls, “The body language suggested that a few students were uncomfortable with the dyads as well as with some of the Perspectives [EMELI’s Perspectives on Equity]... One student said this was the best information she has received dealing with equity in education.”

To carry out this work, Pitman has often called upon her other colleagues in the Colorado EMELI network around the state, and they have traveled to Grand Junction (a trip across the Rockies) to assist and support her. This personal connection to and support from the statewide Colorado EMELI network has been crucial to her individual effort. Pitman also credits the power of the EMELI structures and resources she imported. She recalls, as an example, the Superintendent’s participation early on in a Socratic Seminar on *I Won’t Learn From You*. During the session a Colorado EMELI team member told a personal story of her family’s internment as Japanese Americans. The Superintendent was so stirred by the story that he spoke up, saying he had always held the belief that “we all ought to just assimilate” and admitting he “had never thought of it that way.” He then told his own cultural story to the group, a story he had not been very conscious of until then.

Pitman also points to the legitimacy and stature that Colorado EMELI enjoyed in the eyes of the Superintendent because it was so closely associated with the Colorado Partnership for Educational Renewal. “I think with the Colorado Partnership, because it is a reputable organization, our superintendent values that program very highly. So I think having that connection gives a boost to some of the EMELI equity work we are trying to do. If the Colorado Partnership values this work and is willing to take it on over there, then it must be important stuff.”

Over time, Pitman has witnessed the district Superintendent’s evolving personal commitment to building equity into district policy. This has also supported her ongoing work with district administrators. “He has made leaps and bounds by expecting, and writing into the job descriptions, that administrators have to have some responsibility for equity issues. It is probably one of the only districts that I have heard of that has gone that far to put something into writing and then tie it into evaluations for all administrator jobs – that’s a hundred people.”

On a purely personal level, EMELI helped Pitman grow as a professional. Without her EMELI experience, she says, “My understanding of equity may not have been as deep. I think as the coordinator for equity in the district, I have the responsibility to learn as much as I can about all of the different aspects of equity. I think a long time ago I would have thought, this has to do only with racial related kinds of things, but over the years, I have learned about class aspects and gender aspects and more importantly within the school setting, how those characteristics come into play with academic success or failure.”

For Pitman, the combination of having a formal role in the district as diversity coordinator, of exercising individual leadership that has been supported by EMELI strategies, national level EMELI, and Colorado EMELI people, of working in a district that is demonstrating some

commitment to equity, and of being linked to other reform efforts – all of this has given her substantial individual capacity for leadership and influence in the area of equity. “I feel more valued,” she says.

Ironically, Pitman now worries that her district’s commitment to equity – as exemplified by new policies that assign formal responsibility for equity to every administrator – may mean that she has worked herself out of a job. While she appreciates the impact on district policy and practice, she worries about the diffusion of attention. She believes it is necessary that a strong and visible leader maintain clear responsibility for keeping equity issues in the forefront: “The system won’t let equity work survive unless someone keeps pushing it.”

Sustaining the leadership

Pitman’s concern is precisely that which drives herself, Elliott, Farmer, Duran, Taylor, and other key leaders to persist in their effort to find a reliable source of support for the Colorado EMELI network. School reform work of all kinds is inherently challenging because it asks educators to rethink ingrained practices. But the equity work of EMELI is more difficult because it asks educators to rethink personal beliefs and to revisit life experiences related to race, class, gender, and other factors that contribute to differential access to society’s benefits. Those issues are among the first that people – and thus schools and districts – want to push to the back burner.

Equity work is difficult to sustain also because of the personal toll it takes on those who do it. Vivian Elliott suggests that people of color pay an especially high personal price: “I have had tears because it is so common in equity work to have hurdle after hurdle, that when you talk to the folks who are in the leadership, in the dominant culture, if you talk about it, it sounds like you are whining. It isn’t perceived [by people of the dominant culture] as a hurdle, it is perceived as ‘the way business is done’ and ‘don’t be naïve’ and some of those kinds of responses. I have decided to just take this thing by the horns and move forward with the focus that we have, which is do a better job out there on the front lines.... [Doing equity work] is about how resilient and supported leadership has to be in order to stay in the battle. We do have lives, we have grandchildren who are wonderful and I like to spend time with them, and families. Staying with this work is about not draining my emotion on a reform effort. So that is part of the picture too.”

Jeff Farmer adds that equity work requires a different kind and degree of support than other reform work: “The difference in the [EMELI] approach [to equity work as opposed to curriculum reform per se] is in the emotional support. I know we can’t put that on the cover page, but that’s the difference. Helping people to deal with the things that we all have bottled up inside us on these issues, and that are not really very safe to talk about in most professional contexts, is what allows them to continue making changes in the face of resistance. It allows people to think more clearly, paradoxically, once they have worked through the feelings they have about their stories.” He adds that “the most important thing is to support sustained leadership on the issues.”

V. THE FUTURE OF EQUITY WORK IN COLORADO

EMELI put equity work on the education reform map in Colorado at a time when many reform activists were frustrated about persistent inequities in students' experience. A district administrator and EMELI participant in Boulder said, "You know, I have been in the district 17 years, and we have been through 'success-based education,' we have been through 'outcome-based education,' now we are going through 'standards-based' education, we have been through all those pre-packaged programs for student success...in those 17 years I have not yet seen an increase in the achievement of students of color; I have not yet seen a decrease in the dropout rate for students of color; I have not yet seen more than three students of color in AP courses in math or chemistry. So what is it that we need to start looking at? We need to start looking at how teachers' expectations affect student achievement. How do their biases and beliefs on racism and classism and gender issues affect student achievement?"

EMELI brought reform strategies into Colorado that many education reformers wanted, but did not have. The Executive Director of the Colorado Partnership for Educational Renewal (and not an EMELI participant) described the impact of Colorado EMELI and the value of its distinct approach: "EMELI has heightened awareness of the [equity] issues that are there and has helped people in the schools to really start addressing these on a deep level. It's kept the issues visible. It's expanded the depth of our thinking about it. The response from the superintendents and deans with whom I work most closely has been very positive. Everyone is quite eager to have some solid, substantive ways to start getting at these issues. With some of the incidents in the schools in the last year, even before some of the real tragic things happened,⁹ people were becoming very concerned that they should do something, and they didn't know what to do or how to do it because so many programs out there promise great results – 'Just add water and you'll get great results.' I think EMELI and the people who have been involved with it have touched in on something that we try to skirt around, some of the real deep issues of racism. And by having some mechanisms for people to understand that in themselves, then those people really make much more powerful resources for others. It's really very profound. It's the combination of some structure, a sense of purpose, and a strong value base that has provided a strong avenue for us to effectively address equity issues."

EMELI efforts to engage in equity work – to address directly the personal biases, social issues, practice and policies that underlie inequity – have proved effective where others have faltered. EMELI provides structured activities and high quality support materials that are readily adaptable to myriad contexts – from the national EMELI institute to Colorado, and from classrooms to boardrooms. These structures support inquiry into the personal biases and assumptions one holds about students and their potential as mathematicians and scientists, as well as insights into the life experiences of others. And they help educators take action at the personal and systemic levels on issues related to equity. After a district Equity Summit in Grand Junction, one participant said, "I feel that I am going away from this workshop with far more knowledge about equity than I ever imagined. I am more aware of the equity issues, whether it be gender or cultural, and feel this will help me as a teacher to respect all children equally and value each child for his or her strengths." Another said, "I am so pleased that support groups will be organized and additional classes offered. I feel like I have a good beginning now, but I feel like I need more. It was great

⁹ A reference to the shootings at Columbine High School in April 1999.

to be able to speak with other adults who were different from myself and get their perspectives and feelings.”

Some educators in Colorado have questioned why EMELI sees mathematics education reform as the context for equity work, wondering whether it gives the work a too-narrow focus. Mathematics Professor Jeff Farmer makes this case for the equity-mathematics connection: “I think it is important in a number of ways. First, it gives us a ready source of data on inequities, and math is one of the toughest filters. Second, it gives teachers and other educators a good context for thinking about how students can be treated differently. It's one thing to say: ‘treat students with respect, treat them as though they are intelligent (because they are), listen to their ideas...’ – people can easily agree. It's another thing to say all of those same things in the context of a math class. ‘Let students talk? Listen to them? Give them interesting problems and don't shut down their thinking? Assume that all of your students are (mathematically!) intelligent?’ Then people say: Wait a moment – that's much more controversial. In the same way, I think it also helps people think more clearly about what they can DO. Third, let's be honest – it allows us to address some issues that we know are problems throughout the educational system, but that many people don't think are really problems (racism, classism, gender bias) until they look at them in a math context. They think that the solutions are traditional, and we don't, but it lets us get a foot in the door to say ‘Let's try something different than business as usual.’”

All of that said, EMELI has not been a panacea in Colorado. Both personally and organizationally, getting the work going often involved fits and starts and struggles. As Becky Lenhart said of her colleagues at Overland High, “Overall the responses continue to be great [but] not all teachers are pleased about being required to attend and not all teachers think this work is important. There are some who think there is no problem regarding gender bias or racial discrimination. They think that those are things of the past. We have had some very ‘lively’ discussions in these sessions.”

Colorado EMELI leaders do not wear rose-colored glasses. They have had to learn the hard way how to promote and conduct professional development workshops so that participants do not feel equity is being “done to” them. They have learned to work first with those who are eager and support the work, and later with those who are more skeptical. They have learned to sequence and pace activities in workshops so that participants are prepared for the emotional involvement equity work demands. And they have learned that very skilled leadership is required for this work. These challenges add to the urgency of the statewide leadership team's effort to foster ongoing leadership development and support through the Colorado EMELI workshop series.

In fact, the greatest challenge EMELI faces in Colorado is sustainability. The Colorado team faces the very real question of whether policy-makers and funders have the will to support equity work through investment in reliable, stable support for leadership. The Director of the Colorado Partnership blames the “projectitis” mentality of funders for the immensity of the challenge: “A big challenge for EMELI, and for all of us, is to be willing to delve deep enough and hard enough to come to some better understanding of what culture is. Along with that comes the tenacity both on the part of the participants in EMELI and other equity efforts and the support that they get. What happens so often is that a funder will fund a project for a few years and just when things are

starting to take root and really take off, they say ‘Oh well, we funded you so now we’ll do something else.’”

Colorado EMELI leaders have learned that the resources and reform tools of the national EMELI project are readily transferable to their own teaching and leadership contexts. Their work has clearly helped raise awareness in Colorado about issues underlying equity and about the fact that reform “business as usual” will not bring about more equitable outcomes for students. In some pockets around the state – some classrooms, schools, and even districts – they have seen that equity work can bring about changed practices and policies. At the same time, they are acutely aware that their work has only begun.

One state-level Colorado EMELI leader discussed the ongoing need to invent reform strategies that might actually bring about change: “Changing practice requires systemic attention because where I saw change that was sustainable, there were structures and policies in place... Just talking about equity won’t work. There has to be support for talking about *pedagogy* and equity, *curriculum* and equity, *assessment* and equity. I am learning that we don’t have strong models for doing that, although we have been at this for quite awhile. I am still inventing.”

The story of EMELI in Colorado holds out a vision of equity in mathematics that at once offers inspiration and reminds educators that equity work has just begun. In reflecting on the personal and cultural meaning that educational equity holds, Vivian Elliott says “So much of life involves mathematical thinking. I see children cheated of their right to do challenging math. My own children were marginalized around math. I too feel cheated even though I received As and Bs in graduate and undergraduate mathematics classes. I wasn’t taught as if I could understand and apply mathematical concepts, but was taught to ‘get through math.’ This saddens me. The pipeline to college entrance, post-secondary jobs that pay well, graduate level achievement, etcetera, has diminishing numbers of children who are poor or from racial minority groups. That is troublesome, particularly when it comes to democratic freedom – life, liberty, and the pursuit of happiness. I care about mathematics because I believe it is a critical skill for having an abundant life.”