

An Evaluation of Project RENEW: Year II Report Prepared for the National Science Foundation

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PROJECT RENEW
ANNUAL REPORT YEAR THREE
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Project RENEW Description

Project RENEW is a five-year project housed in the Center for Educational Change in Mathematics and Science (CECIMS) in the Gevirtz Graduate School of Education at the University of California, Santa Barbara. RENEW is a teacher retention and renewal project designed in response to the question: *How can a model be developed that both supports and retains competent beginning teachers in the profession and develops the leadership capacity of experienced teachers, while at the same time increases both groups' ability to teach mathematics?*

The contribution of RENEW is the development and testing of a model to keep talented teachers in the teaching profession while at the same time helping them improve their understandings of mathematics and its teaching. Unlike other teacher support programs which focus on newly credentialed teachers, RENEW focuses attention on teachers in their first to fifth year of teaching and does not limit such support to only those teachers who are credentialed. Few structures are currently in place to help teachers after they are over the hurdle of their first two years in the classroom when they are more capable of focusing away from issues of classroom management and onto issues of mathematics pedagogy and content.

In addition to the high attrition rate of new teachers, many veteran teachers report that they and their colleagues are experiencing "burn-out" from the increased pressure from high-stakes tests, attacks on public education and educators, inadequate physical and curricular resources, and a lack of respect for the profession. RENEW is currently developing and supporting the leadership development of a cadre of 56 experienced and well-regarded "Preceptors" who work directly with beginning teachers – called "Preceptees" - in their schools and classrooms.

Project Objectives and Outcomes

RENEW is providing professional development workshops, seminars and year round support to teachers in order to:

- Develop a leadership cadre of experienced teachers who work with and support beginning teachers in their first five years of teaching;
- Increase the mathematical and pedagogical knowledge of beginning and experienced teachers;
- Design activities to help teachers, both new and experienced, to implement the vision of mathematics classrooms as described in the NCTM *Principles and Standards for School Mathematics* (NCTM, 2000) and make appropriate connections to the California Mathematics Content Standards; and
- Increase teachers' capacity to work with a diverse student population (especially English Language Learners).

Participants

Project RENEW involves over 223 people (across nine school districts) in four main capacities as outlined below.

- 10 Leadership Team Members
- 56 Preceptors (Experienced Mentor Teachers)
- 155 Preceptees (Beginning Teachers)
- 2 Evaluators

The Leadership Team is comprised of the principal investigator, Julian Weissglass, Ph.D, the co-principal investigator and project director, Nancy Terman, and a four-member leadership team for each of the two cohorts of Preceptors. The project evaluators are Sarah Hough, Ph.D. and Nancy O'Rode, Ph.D. The names, role, and work site of the leadership team members who work with the project P.I and Director are listed below.

Name	Role at Work Site	School or Institution
Cohort I Leadership (Project Years 1 – 3)		
<i>Ruby Durias</i>	<i>Mathematics Curriculum Coordinator</i>	<i>Oxnard Elementary SD</i>
<i>Michael Hunt</i>	<i>Junior High Mathematics Teacher</i>	<i>Frank School, Oxnard Elementary SD</i>
<i>Maria Gutierrez-Guzman</i>	<i>Mathematics Project Director</i>	<i>Tri-County Math Project in CECIMS at UCSB</i>
<i>Lynette Meyer</i>	<i>Principal</i>	<i>Brandon Elementary School, Goleta SD</i>
Cohort II Leadership (Project Years 3 - 5)		
<i>Larry Kelman</i>	<i>2nd Grade Teacher</i>	<i>Rio Real Elementary, Rio School District</i>
<i>Marilynne Parker</i>	<i>1st Grade Teacher</i>	<i>Thurgood Marshall Elementary School, Oxnard Elementary SD</i>
<i>Terrie Romines</i>	<i>High School Mathematics Teacher</i>	<i>Channel Islands High School, Oxnard Union High SD</i>
<i>Lilia Zambrano</i>	<i>High School Mathematics Teacher</i>	<i>Oxnard High School, Oxnard Union High SD</i>

The Preceptor Cadre is comprised of 56 experienced mentor teachers or *Preceptors* from nine school districts: Goleta Union School District, Oxnard

Elementary School District, Oxnard Union High School District, Rio Elementary School District, Fillmore Unified School District, Ocean View School District, Santa Paula Elementary School District, Simi Valley Unified School District and Westside Union School District. The Preceptors work with 155 beginning teachers (*Preceptees*) from the nine school districts, who are in their first five years of teaching.

Introduction to Year Three

The design of Project RENEW incorporates an expansion of the number of experienced teachers who participate in the third year of the project. This serves the purposes of a) providing the opportunity for leadership development in mathematics for a larger number of experienced teachers and b) expanding the leadership capacity for mathematics education within participating districts.

Experienced teachers who serve as Preceptors agree to participate in a three-year leadership program as they work in their districts to support teachers new to the field. This year is the last year of full participation in Project RENEW for the teachers who serve as Cohort I preceptors and the first year of participation for a new cadre of experienced teachers who are the Cohort II preceptors. The five-year leadership development design is illustrated below.

*Project RENEW Five-Year Design for Leadership Development in
Mathematics Education for Preceptors*

Cohort I Year 1: 2001 – 2002	
Cohort I Year 2: 2002-2003	
Cohort I Year 3: 2003-2004	Cohort II Year 3: 2003 – 2004
<i>Cohort I</i> <i>One Reunion Day for all Preceptors</i>	Cohort II Year 4: 2004 – 2005
<i>Cohort I</i> <i>One Reunion Day for all Preceptors</i>	Cohort II Year 5: 2005 – 2006

In preparation for this transition, this year’s leadership development of Cohort I preceptors is focused on moving beyond the role of a preceptor to thinking more broadly of the mathematics professional development needs of their district. A one-day reunion day is built into this design to enable Cohort I Preceptors to stay connected to RENEW in years four and five.

At the same time that Cohort I Preceptors are winding down their participation, a new group of experienced teachers (Cohort II) have begun their participation in RENEW. They attended an intensive ten-day Leadership Institute in summer 2003 and their three-year involvement in RENEW will be similar to that of the first cohort.

Cohort II is comprised of teams from all of the eight districts who participated in RENEW in year two and a ninth district that joined the project this

year. While our plan was to continue working with those districts involved in RENEW from the beginning, an exception was made for the Ocean View School District in Oxnard, California. They had intended to participate in the first year but had been unable to and so were delighted to enter into the project as we began working with a new cohort of experienced teachers this year.

Leadership Development Work with Preceptors. The work with the preceptors this year is balanced between attending to the leadership development needs of the new Cohort II Preceptors and working with the two cohorts together so that the RENEW work in each district is conducted in an organized and coherent manner. Thus, while most of the professional development for preceptors is conducted separately for each cohort, the two groups were brought together for two days in the summer and two days during this academic year.

Work of Cohort I and II Preceptor Teams in Districts. As the context for each district and the dynamics of each team are different, it is important to allow flexibility in regard to the ways in which the Cohorts I and II Preceptors function in their districts. The variety of ways in which the district teams have organized themselves provides an opportunity to observe the strengths and challenges of each model.

New Leadership Team for Cohort II. A new team of four teacher leaders were selected to work with the RENEW P.I. and Director as they plan and conduct the Cohort II leadership development activities. This represents another level of leadership development for these four teachers, three of whom are

Cohort I Preceptors. The fourth teacher leader is a leader in another project in CECIMS, the *Tri-County Mathematics Project*, which is the USCB site of the California Mathematics Project.

While our numbers of experienced and beginning teachers have grown substantially this year, we have had many conversations with preceptors and school and district administrators regarding next year and beyond. At the center of this conversation is the question of the role of Cohort I preceptors after this year. Districts have come to rely on the leadership of these teachers and the teachers themselves value their experience in RENEW and wonder how they might continue to take leadership and continue to get support for their own leadership growth. A discussion of this issue is in *Looking Ahead to Year Four*, the last section of the Project Findings portion of this report.

Project RENEW Report: Activities

SECTION A: Overview of Activities

The work of Project RENEW doubled in the third year of operation with the addition of a second Leadership Team, a second group of 33 experienced teachers who began as Preceptors, and an increase in the number of beginning teachers mentored by these new Preceptors. For the purposes of illustration, descriptions of the Year III RENEW activities are divided into three major areas: Activities of the Leadership Teams for Cohort I and II, Activities of the Cohort I and II Preceptors (experienced teachers), and Activities of the Preceptees (beginning teachers).

Year III Activities of the Leadership Team for Cohort I:

- Meet as a team to assess progress of the project and craft long-term plans (28 hours)
- Plan and Conduct 4 Full-Day Cohort I Preceptor Seminars
- Plan and Conduct 5-Day Summer Institute for Cohort I Preceptors
- Plan and Conduct 1 Half-Day Administrator Seminar
- Work with Preceptors to plan Beginning Teacher Institutes

Year III Activities of the Leadership Team for Cohort II:

- Meet as a team to assess progress of the project and craft long-term plans (37 hours)
- Plan and Conduct 10-Day Summer Institute for Cohort II Preceptors
- Plan and Conduct 6 Full-Day Cohort II Preceptor Seminars
- Plan and Conduct 1 Three-Day Leadership Retreat
- Plan and Conduct 1 Half-Day Administrator Seminar

Year III Activities of the Preceptors for Cohort I and II:

- Plan and Conduct Mathematics Education Professional Seminars (MEPS) for Beginning Teachers (Preceptees)
- Plan and Conduct Beginning Teacher Institutes (Cohort I)
- Participate in 5-Day Summer Institute (Cohort I) or 10-Day Summer Institute (Cohort II)

- Participate in 4 Full-Day Preceptor Seminars (Cohort I) or 6 Full-Day Preceptor Seminars (Cohort II)
- Participate in Three-Day Residential Retreat (Cohort II)
- Participate in Half-Day Administrator Seminar
- Conduct classroom observations of Preceptees
- Meet informally and formally to mentor Preceptees

Year III Activities of Preceptees:

- Participate in Mathematics Education Professional Seminars (MEPS) (21.5 hours during the year)
- Participate in Beginning Teacher Institutes
- Classroom visitations by Preceptor, or Preceptee visits classrooms of experienced teachers or Preceptors

Section B: Description of Project Activities

The Professional Development of the Preceptor Cadre

Summer Institute for Preceptors: A ten-day Leadership Development Institute for Cohort II and a five-day Institute for Cohort I were held in Summer 2003. The last two institute days for both Cohorts overlapped and initial planning, combining both the first and second cohorts of Preceptors in each district, commenced. Preceptors investigated mathematics, explored equity issues, and participated in leadership activities during the institutes.

Preceptor Seminars. Six full-day seminars were held during the academic year for Cohort II and four full-day seminars were held for Cohort I in order to continue to support the learning of the Preceptor Cadre. Along with developing their mathematics knowledge and mathematics pedagogy, district teams had opportunities to share about their work with Preceptees. They shared ideas about what is working well for them, and discussed challenges that they face in

supporting the beginning teachers. Table 3 lists the dates of the Preceptor Seminars, the attendance and the number of hours for each session.

Three-Day Residential Retreat. The purpose of the retreat will be to continue to develop leadership skills of the Cohort II Preceptors as they begin the intensive work of planning for Beginning Teacher Summer Institutes for prospective Preceptees in Summer 2004. Preceptors will engage in investigative mathematics activities, discuss equity issues and the role of leaders. The residential retreat will take place in early June, at the close of Year 3 and beginning of Year 4 for Project RENEW.

The Professional Development of Administrators

Administrator Session. The purposes of the half-day administrator session are four-fold: to inform the administrators about Project RENEW, to build support for the project, to develop a sense of what mathematically meaningful investigations are like for learners, and to convey the importance of high quality mathematics professional development in their district. The administrator session is concurrent with a full-day Preceptor Seminar (December 10, 2003). For the 2003 Preceptor/Administrator Seminar, administrators were introduced to a mathematics activity, led by Dr. Nicholas Branca, which incorporated an introduction to rational numbers and a discussion of what constituted a mathematics lesson. Administrators discussed strategies for supporting the Preceptors and Preceptees in the project, in particular, how to best sustain the leadership of the experienced teacher group (Cohort I Preceptors) in their districts. Administrators and Preceptors from Cohort I and II joined together to

plot out a strategy for continuing leadership development in district teams. Forty administrators from nine districts representing 22 schools attended the session. Feed back from this institute indicated that the time spent working in district groups was highly beneficial to both Preceptors and their administrators.

The Professional Development of Preceptees (Beginning Teachers)

Mathematics Education Professional Seminars (MEPS). Each district team of Preceptors is responsible for delivering 21.5 hours of professional development to the Preceptees (beginning teachers) in the project during each school year. The Preceptors provide professional development by conducting Mathematics Education Professional Seminars, which may take the form of one- to four-hour after school sessions, full or half-day Saturday sessions, or combinations of these formats. The MEPS are typically led by a district team of Preceptors, or by individual Preceptors. Two of the nine districts share responsibility for providing MEPS professional development to their Preceptees. The after school MEPS usually consist of a whole group sharing time about how things are going in their classrooms, a mathematics activity with reflection, and a discussion of what is needed for continued support in the Preceptee's classroom. The longer, full-day MEPS give an opportunity to include more intensive activities, such as mathematics learning in more depth, lengthy discussion of issues of diversity, equity and English Language Learners, as well as time to conduct readings and analyses of current articles on mathematics education. Table 5 lists the dates of MEPS that have been completed in each district, the

number of Preceptors who led the MEPS, the number of Preceptees who attended the MEPS, and the number of hours for each seminar.

Beginning Teacher Institutes. During the summer of 2003, the Preceptors in two districts planned 3-Day and 5-Day Beginning Teacher Institutes and invited any of the teachers in their districts with less than 5 years of teaching experience to participate. In the institutes, beginning teachers engaged in investigative mathematics activities consistent with the mathematics envisioned in NCTM's *Principles and Standards of School Mathematics*. The participants also explored the mathematics curriculum at their grade level, met in grade level groups, discussed the California Mathematics Standards, and discussed the challenges they face as new teachers. Table 4 lists the number of Beginning Teachers who attended Institutes in the summer.

Preceptee Seminar Day. Hosting a full-day seminar for 155 Preceptees and 56 Preceptors would have been problematic in the third year of the Project because of the lack of availability of substitutes in school districts. During the third year, the number of Preceptees in the project increased substantially, due to the introduction of a second cohort of Preceptors. A Preceptee Seminar Day, focusing on the needs of beginning teachers, will be held in the fourth and fifth year of the project.

Classroom Visitations. Three distinct categories of classroom visitations occur in Project RENEW. a) Preceptor is invited to observe a mathematics lesson taught by a Preceptee, b) Preceptor demonstrates a mathematics lesson in the beginning teacher's classroom, or Preceptee observes the Preceptor's

mathematics class, or c) Preceptee visits a classroom of another colleague to observe a mathematics lesson. When the Preceptee is not at the same grade level as the Preceptor, or in the case of high school teachers who are not teaching mathematics classes similar to their Preceptor's, Preceptees may visit classrooms of other experienced teachers. The visit is set up by the Preceptor to ensure that the beginning teacher observes the best classroom practices and to conduct post-observation discussions. During the third year of the project, the new cohort of experienced teachers, Cohort II Preceptors, were informed about the responsibilities of classroom visitations. The first cohort of Preceptors were reminded of the classroom visitations that are on-going throughout the school year. However, preceptors tend to visit the preceptees later in the school year after informal meetings and professional development seminars have created a trusting relationship between the beginning and experienced teachers. Tables 6 through 9 summarize the classroom visitations for Year 3. Table 10 compares the number of visitations in the first, second, and third year of the project.

Informal and formal meetings with Preceptors. Throughout the year, Preceptees and Preceptors meet to discuss the issues that are particular to beginning teachers. These meetings may occur after school, during breaks, or at appointed times. Discussion topics ranging from curriculum questions, use of manipulatives, where to find resources, guidance for navigating through the school and district norms and regulations, and suggestions for classroom management have been reported by the Preceptors.

SECTION C: Detailed Activities Information

Table 1. **Year 3**

*Activities of Cohort I Leadership Team in Year 3
from June 1, 2003 through May 31, 2004*

	Leadership Activities Cohort I Year 3	Dates	Number of Team Members	Hours
1.	Leadership Team Planning Meetings	Jun 9, 2003 Jul 3, 2003 Sep 17, 2003 Oct 14, 2003 Nov 14, 2003 Jan 6, 2004	6 6 6 5 6 5	6 3 3 3 4 6
2.	Plan and Conduct 5-Day Summer Institute for Cohort I	Jul 28, 2003 Jul 29, 2003 Jul 30, 2003 Jul 31, 2003 Aug 1, 2003	6 6 6 6 6	6.5 6.5 6.5 6.5 6.5
3.	Plan and Conduct Preceptor Seminars Cohort I	Oct 14, 2003 Dec 10, 2003 Feb 4, 2003 June 3, 2004	6 6 6 6	6.5 6.5 6.5 6.5
4.	Plan and Conduct Half-Day Administrator Seminar (concurrent with Preceptor Seminar on Dec 10)	Dec 10, 2003	6	3.5
5.	Work with Preceptors to Plan and Conduct Beginning Teacher Institutes	Various Summer 2003		

Table 2. **Year 3**

Activities of Cohort II Leadership Team in Year III

From June 1, 2003 to May 31, 2004

	Leadership Activities Cohort II Year 3	Dates	Number of Team Members	Hours
1.	Leadership Team Planning Meetings	Jun 2, 2003 Jun 3, 2003 Jun 20, 2003 Jul 3, 2003 Sep 15, 2003 Nov 14, 2003 Jan 6, 2004 Feb 9, 2004	6 6 6 6 6 5 6 6	8.5 6 6 3.5 3.5 3.5 6 3
2.	Plan and Conduct 10-Day Summer Institute for Cohort II	Jun 23, 2003 Jun 24, 2003 Jun 25, 2003 Jun 26, 2003 Jun 27, 2003 Jun 30, 2003 Jul 1, 2003 Jul 2, 2003 July 31, 2003 Aug 1, 2003	6 6 6 6 6 6 6 6 6 6	6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5
3.	Plan and Conduct Preceptor Seminars Cohort II	Oct 3, 2003 Oct 29, 2003 Dec 10, 2003 Feb 4, 2003 Mar 2, 2004 May 27, 2004	6 5 6 6 6	6.5 6.5 6.5 6.5
4.	Plan and Conduct Half-Day Administrator Seminar (concurrent with Preceptor Seminar on Dec 10)	Dec 10, 2003	6	3.5
5.	Work with Preceptors to Plan and Conduct Beginning Teacher Institutes	Various Times Summer 2004		

Table 3. Year 3 Activities of Preceptors (Experienced Teachers) from June 1, 2003 through May 31, 2004

	Preceptor Activities	Dates	Number of Preceptors	Hours
1.	Plan and Conduct Mathematics Education Professional Seminars (MEPS)	See Table 5		
2.	Participate in Three-Day Residential Leadership Retreat	Jun 3, 2004 Jun 4, 2004 Jun 5, 2004	TBD	9 9 7.5
3.	Participate in Full-Day Preceptor Seminars			
	Cohort I	Oct 14, 2003	22	6.5
		Dec 10, 2003	21	6.5
		Feb 4, 2004	23	6.5
		Jun 3, 2004	TBD	6.5
	Cohort II	Oct 3, 2003	25	6.5
		Oct 29, 2003	17	6.5
		Dec 10, 2003	28	6.5
		Feb 4, 2004	25	6.5
		Mar 2, 2004	TBD	6.5
		May 27, 2004	TBD	6.5
4.	Plan and Conduct Beginning Teacher Institutes			
	Oxnard Elementary	Aug 18-22, 2003	9	33
	Oxnard Union High School	Aug 18-22	4	15
	Rio	Aug 20-22, 2003	8	19.5
5.	Classroom Observations	Various dates		~1.5
6.	Informal and Formal Mentoring with Preceptees	Various dates throughout the year	All	Various

Table 4. **Year 3** Activities of Preceptees (Beginning Teachers)
from June 1, 2003 through May 31, 2004

	Preceptee Activities	Dates	Number of Preceptees	Hours
1.	Participate in Mathematics Education Professional Seminars (MEPS)	See Table 5		
2.	Participate in Beginning Teacher Institutes		(Number of Beginning Teachers)	
	By District			
	Oxnard Elementary	Aug 18 – 22, 2003	22	33
	Oxnard Union High School	Aug 18-22, 2003	19	15
	Rio	Aug 20 - 22, 2002	31	19.5
3.	Classroom Visitations	On-going	See Table 6	Varied

Table 5. Year 3

Combined Activities for Preceptors and Preceptees in Mathematics Education Professional Seminars (MEPS): Year 3 from June 1, 2003 through May 31, 2004

	Preceptee Activities	Dates	Number of Preceptors	Number of Preceptees	Hours
1	Mathematics Education Professional Seminars (MEPS)				
	Goleta	Oct 9, 2003	7	16	2
		Nov 4, 2003	5	17	3.5
		Jan 15, 2004	6	13	2
		Feb 19, 2004			
		Mar 24, 2004			
		Apr 8, 2004			
		May 20, 2004			
	Oxnard Elementary	Sep 25, 2003	9	20	6
		Oct 22, 2003	2	2	2
		Oct 23, 2003	2	6	2
		Nov 3, 2003	2	4	2.5
		Nov 17, 2003	2	2	2
		Dec 4, 2003	2	1	2
		Jan 22, 2004	2	3	2
		Jan 28, 2004			
		Feb 18, 2004			
		Feb 20, 2004			
		Mar 24, 2004			
	Ocean View	Oct 10, 2003	6	7	3
		Oct 24, 2003	5	7	6
		Jan 23, 2004	5	6	6
		Feb 26, 2004			2
		Mar 18, 2004			2
		May 13, 2004			2
	Rio	Oct 10, 2003	7	26	2
		Nov 1, 2003	4	11	6
		Dec 5, 2003	5	18	2
		Dec 10, 2003	1	3	2
		Jan 23, 2004	8	26	2
		Mar 13, 2004			6
		Apr 30, 2004			2
		May 21, 2004			2

	Preceptee Activities	Dates	Number of Preceptors	Number of Preceptees	Hours
	Oxnard High School District	Sep 25, 2003	4	15	6
		Oct 9, 2003	1	4	2
		Oct 15, 2003	2	5	2
		Oct 16, 2003	1	4	2
		Nov 4, 2003	1	5	2
		Nov 13, 2003	1	4	2
		Nov 20, 2003	1	4	2
		Dec 4, 2003	4	12	2
		Feb 11, 2004	2	4	2
		Feb 19, 2004	1	4	2
		Mar 25, 2004			6
		Apr 22, 2004			2
	Santa Paula/ Fillmore (Two districts)	Sep 25, 2003	5	14	2
		Nov 6, 2003	5	14	6
		Dec 4, 2003	5	13	2
		Jan 22, 2004	5	13	2
		Feb 26, 2004			
		Apr 29, 2004			
	Simi Valley	Sep 23, 2003	8	25	3
		Nov 25, 2003	8	20	3
		Jan 27, 2004	8	20	3
		Feb 24, 2004			
		Mar 23, 2004			
		Apr 20, 2004			
		May 25, 2004			
	Westside Union	Sep 9, 2003	5	15	2
		Sep 30, 2003	5	17	2
		Oct 21, 2003	4	13	2
		Nov 4, 2003	6	14	3
		Jan 13, 2004	6	13	2
		Jan 28, 2004	3	8	6
		Jan 29, 2004	3	10	6
		Feb 24, 2004			
		Mar 16, 2004			
		Apr 27, 2004			
		May 18, 2004			
	June 1, 2004				

Tables 6 - 10. **Year 3**

Classroom Visitation Activity by Preceptors and Preceptees in Year 3 of Project RENEW from June 1, 2003 to May 31, 2004

Three Categories of Classroom Visitations in Project RENEW

- a) Preceptor (experienced teacher) visitation of Preceptee's Classroom
- b) Preceptee (beginning teacher) observation of Preceptor's Classroom
- c) Preceptee observes other experienced teacher classrooms at their grade level

Table 6. Summary

Summary of Classroom Visitations in Year 3 (as of February, 2004)	
Total number of Classroom Visitations in category a, b, or c	146
Proportion of Preceptors involved in visitations	40% (23 of 57)
Proportion of Preceptees involved in visitations	48% (75 of 155)
Proportion of Preceptees involved in three observations	10% (15 of 155)

Table 7. Preceptor Visits

a) Preceptor Visiting Preceptee Classrooms (as of February, 2004)	
Number of Preceptor observations of Preceptee Classroom	54
Percent of Preceptors observing classrooms as of February, 2004 in Year 3	33%
Proportion of Preceptees visited by Preceptor	22% (34 of 155)

Table 8. Preceptee Observations of Preceptor's Classrooms

b) Preceptee observation of Preceptor mathematics class (as of February, 2004)	
Number of Preceptee observations of Preceptor Classrooms	31
Proportion of Preceptees observing Preceptor classrooms	14% (22 of 155)

Table 9. Preceptee Classroom Observations

c) Preceptee observation of other experienced teacher classrooms (as of February, 2004)	
Number of Preceptee observations of mathematics classrooms other than Preceptor classrooms	61
Proportion of Preceptees observing classrooms of experienced teachers	26% (41 of 155)

Table 10. Number of Classroom Visitations made in each year the Project

Classroom Visitations		
	Number of Preceptors	Number of Classroom Visitations (a, b, or c)
Year 1 2001 – 2002	30	minimal
Year 2 2002 - 2003	29	81
Year 3 2003 – 2004 (as of Feb. 2004)	58	146

SECTION D: Final Summary of Year II Activities

Since the report for Year II was submitted in February 2003, what follows is summary information for the Year II activities of RENEW. In the 2002-2003 academic year Project RENEW worked with eight school districts in Southern California located in Ventura, Santa Barbara, and Los Angeles counties. A six member leadership team, 96 beginning teachers (Preceptees), and 29 Experienced Teachers (Preceptors) participated in the project.

Professional Development Hours Completed

Preceptors. Between July 2002 and June 2003 16 days of professional development were offered for the Preceptors, including a two-week summer institute at the start of RENEW and 6 day-long academic year Preceptor Institutes. All of the 29 Preceptors that completed their participation in Year II of RENEW attended these professional development hours. One other Preceptors (who had originally signed up in the Simi Valley team), was unable to complete the year due to ill health.

Preceptees. Table 11 below depicts the professional development seminars (MEPS) that were offered in each district in Year II, and Table 12 shows the number of professional development hours Preceptees completed.

Table 11. Year II
Combined Activities for Preceptors and Preceptees in Mathematics Education Professional Seminars (MEPS) from June 1, 2002 through May 31, 2003

	Preceptee Activities Updated For Year Two	Dates	Number of Preceptors	Number of Preceptees	Hours
1	Mathematics Education Professional Seminars				

(MEPS)				
	Goleta	Oct 10, 2002	4	12
		Dec 5, 2002	4	13
		Jan 30, 2002	4	13
		Mar 4, 2003	4	13
		Apr 10, 2003	4	11
		May 15, 2003	4	12
	District Total			25.0
	Oxnard Elementary	Oct 3, 2002	7	4
		Oct 10, 2002	1	2
		Oct 21, 2002	7	11
		Oct 31, 2002	1	2
		Nov 26, 2002	1	5
		Dec 17, 2002	1	5
		Jan 14, 2003	1	5
		Jan 28, 2003	1	5
		Jan 29, 2003	7	4
		Feb 25, 2003	1	5
		Mar 4, 2003	7	9
		Mar 11, 2003	1	5
		Mar 17, 2003	7	5
		Mar 18, 2003	1	5
		Apr 22, 2003	1	5
		Apr 24, 2003	1	5
		May 19, 2003	6	3
		May 20, 2003		3
	District Total			44.5
	Rio	Oct 4, 2002	4	15
		Oct 19, 2002	4	16
		Nov 22, 2002	4	16
		Jan 11, 2003	4	16
		Feb 7, 2003	4	12
		Mar 4, 2003	4	7
		May 2, 2003	4	15
		Jun 6, 2003	4	11
	District Total			26.5

	Oxnard High School District	Sep 19, 2002	2	7	2
		Oct 10, 2002	2	6	3
		Nov 14, 2002	2	7	2
		Dec 10, 2002	2	6	2
		Jan 16, 2003	2	6	2
		Feb 25, 2003	2	4	3
		Mar 4, 2003	2	6	3.0
		Mar 13, 2003	2	6	3
		Apr 3, 2003	2	6	2
		May 8, 2003	2	6	2
	District Total				24.0
	Santa Paula/ Fillmore	Sep 25, 2002	3	14	2
		Sep 30, 2002	3	10	2
		Oct 4, 2002	3	9	2
		Nov 6, 2002	3	15	4
		Dec 4, 2002	3	12	2
		Jan 29, 2003	3	16	6.5
		Feb 26, 2003	3	7	2
		Mar 4, 2003	3	5	6.5
		Apr 9, 2003	1	10	2
	District Total				29.0
	Simi Valley	Oct 30, 2002	4	11	4
		Nov 20, 2002	4	11	4
		Jan 29, 2003	4	12	4
		Feb 19, 2003	4	10	4
		Mar 4, 2003	3	10	3
		Jun 9, 2003	4	12	3
	District Total				22
	Westside Union	Sep 1, 2002	4	6	1.5
		Oct 1, 2002	4	5	1.5
		Oct 23, 2002	4	6	1.5
		Jan 14, 2003	4	5	7.5
		Feb 25, 2003	3	4	3.5
		Mar 4, 2003	4	6	3.0
		Apr 29, 2003	4	6	1.5
		May 13, 2003	4	6	1.5
	District Total				21.5
	Total MEPS Hours Offered				192.5

Each of the eight districts participating offered twenty-two or more hours of MEPS during Year II. Of the 100 participating Preceptees 46% completed 20 or more hours of professional development. The total number of Preceptees completing selected numbers of MEPS hours are given in table 12 below.

Table 12. Year II
Preceptee Professional Development Attendance (as compared to year I)

	% of Preceptees	Cumulative percent of the Preceptees
21.5 hours	46% (30%)	
Between 75 and 100% of the total hours offered	23% (15%)	69% (45%)
Between 50 and 75% of the total hours offered	18% (22%)	87% (67%)
Between 25 and 50% of the total hours offered	11% (27%)	98%(94%)
More than 0 but less than 25% of the total hours offered	2% (6%)	100%

Table 13. Year II
Classroom Visits Conducted During Year II as Self-Reported by Preceptors

	None	Between 1 and 3	4 or more
Visiting Preceptee's classroom	43%	43%	14%
Preceptee visit your classroom	52%	43%	5%
Preceptee visit another experienced teachers' classroom	43%	52%	5%

Preceptors experienced some difficulties in completing the required number of classroom visits during Year II. These difficulties include: (1) hesitancy to leave their classrooms due to increased pressures to prepare for standardized test (CAT6); (2) inability to get substitutes to cover their classrooms. During the latter part of Year II much more discussion of these difficulties and support in overcoming them were incorporated into the seminar activities. [Nancy T do you want to fill in some details here]

Sections E: Year III Evaluation Activities

During Year III the evaluators continued to collect and analyze a wide variety of data to document how the project is being implemented, to examine the progress of the project in moving its participants towards its goals and objectives, and to uncover the extent to which the project is supporting and retaining beginning teachers in the profession.

Implementation

Particular to implementation this year were the issues of (1) retaining last year' Preceptees in the project while continuing to expand the recruitment of new beginning teachers; (2) the addition of a new district in the project; (3) the start of a new cohort of Preceptors; (4) the planning for continued support of Preceptees after the end of Cohort I at the end of this year; (5) particular effects of RENEW on district contexts. Data that informed us of the progress of these issues were collected in the form of participant observations during Preceptor Seminars, observations of MEPS (Math Education Professional Seminars), informal interviews of selections from all tiers of project participants: Leadership Team, Preceptors and Preceptees and formal interviews with an administrator from each district.

Progressive Toward Project Objectives

The evaluators continue to address the evaluation questions posed at the start of the project (see Appendix I). In particular, this year the focus has been on the extent to which the project is helping participants develop pedagogical content knowledge (PCK) of a kind that allows them to implement effective and

equitable mathematics practices (based NCTM's Principals and Standards for School Mathematics, 2000) in their classroom. Data that have informed us of this progress has been varied.

Using concept maps to examine change in Conceptual Knowledge. The two-week Summer Institute that is offered at the start of a new Preceptor Cohort is the time when Cohort I participants reported making the most growth in their own understandings and beliefs about mathematics content. The experienced teacher cohorts spend approximately 70% of the time during these institutes re-learning mathematics, reflecting on their own learning process during these activities and discussing implications for implementing such mathematics in their own classrooms and with their own Preceptees. In order to capture such growth, this year at the Summer Institute for Cohort II, the evaluators designed and carried out a concept map study. The institute had a coherent mathematics focus of algebra, hence participants, after a short period of instruction about concept maps, drew pre and post concept maps detailing their understandings of algebra. These maps were analyzed using two approaches: a structural analysis following Novak & Gowind (1984) and a content analysis following Morine-Dersheimer (1993). An article on the findings of this study is in process.

Analyzing change in beliefs and understandings of pedagogy and subject matter. Each year we ask both Preceptee and preceptor cadres to complete a Beliefs About Mathematics Pedagogy and a Beliefs About Doing Mathematics scale as part of their questionnaires. Factor analyses were conducted on pre responses to obtain 4 reliable "beliefs constructs". These constructs were then

analyzed for change using multivariate techniques across the three years of the project and were compared between Preceptees and Preceptors.

Looking at changes in efficacy to implement effective practice in the classroom. Preceptees are asked each year how well prepared they feel to implement specific aspects of effective mathematics practices in their classrooms. We conducted an analysis to look at changes in these responses across time. To understand changes in the practices of preceptors we analyzed changes in responses across years to questions from *The Preceptor Questionnaire* that asked them to describe their ideal classrooms and the extent to which they were able to implement this ideal in their classrooms.

Development of Leadership Capacity. In addition to pedagogical content knowledge the project also works to develop the leadership capacity of the preceptor cadre. This year a second focus was placed on the analysis of longitudinal self report data from *The Preceptor Questionnaire* in order to understand how preceptors are progressing in this area.

Satisfaction and Retention

We continue to pay attention to the particular needs that RENEW Preceptees have as they enter the project. On the *RENEW Beginning Teacher Questionnaire* that is administered to all Preceptees they are asked to describe what they need as a beginning teacher from this project. Based on constant comparative analyses (Strauss, 1987) of 174 of these responses from pre questionnaires in project Years I and II, 10 needs categories emerged. At the end of each year, as an addition to the *RENEW Beginning Teacher Questionnaire*,

each Preceptee is asked the extent to which the project is addressing these needs. We analyzed reflective prompts that asked in more detail what the Preceptees felt they had gained from the project.

Preliminary retention data is being gathered this year in order to track Preceptees after they leave the project. In addition, this year the evaluators have started to work with districts to track the numbers of beginning teachers in those districts from the start of the project year through 2 years after the end of RENEW. This data will allow us to look at both the impact of RENEW in terms of the percentage of beginning teachers in each district it has supported, as well as compare RENEW retention rates to overall district retention rates.

Section F: Other Project Activities

During Year III more attention has been focused on presenting at professional conferences by the project staff and on the writing of articles for publication. In November of 2003 and in April 2004 the project Director and one of the Cohort I leadership team made presentations to the California Math Council and the National Council of Supervisors of Mathematics on project activities and findings related to the development of the leadership capacity of the Preceptors in RENEW. The Director and one of the Evaluators made a similar presentation to the New Teacher Center in Santa Cruz in February, 2004. Later in February of the same year, the other RENEW evaluator shared the results of the analyses of beginning teacher needs and concerns at the Association of Teacher Educators in Dallas, Texas. Finally, at AERA 2004, San Diego, both evaluators will conduct a session on the cumulative results of RENEW of beginning teachers. In addition to giving papers at professional conferences, we are in the process of writing two articles

for submission to refereed journals. These papers and articles are listed in the contributions section of this report.

Terman, N; Guzman, M. (2004). *Mathematics and Equity: Developing the Leadership of Experienced Teachers to Work With Beginning Teachers*. Paper presented at the National Council of Supervisors of Mathematics (NCSM) April 19-21, 2004 Philadelphia, PA

Hough, S; Erbes, S; O'Rode, N. (2004). *Understanding and Addressing Beginning Teacher Needs and Concerns: The Effects of Project RENEW, A Retention and Renewal Project in Mathematics*. Paper presented at the American Educational Research Association, San Diego, CA. April, 2004.

Hough, S; Erbes, S. (2004). Understanding and Addressing Beginning Teachers' Needs, Concerns and Difficulties: A Description of a Retention and Renewal Project in Mathematics Education. Paper presented at the Association of Teacher Educators 84th Annual Meeting Dallas, TX, February 15 - 19, 2004

Terman, N; O'Rode, N. (2004). *Project RENEW: Developing The Leadership of Experienced Teachers to Work With Beginning Teachers*. Paper presented at the New Teacher Center Symposium, San Jose, CA. February, 2004.

Terman, N; Guzman, M. (2003). *Learning from Each Other: Experienced and Beginning Teachers Explore Mathematics and Equity*. Paper presented at the California Mathematics Council-Southern Section (CMC-SS). Palm Springs, CA. November 7-8, 2003

Hough, S; O'Rode, N. (2003). *Revisiting the Needs of Beginning Teachers in the Context of a Professional development Project*. Paper Presented at the Facing Futures Conference, February 2003, Santa Barbara, California.

Weissglass, J; Terman, T; Hough, S. (2002). *Project RENEW: Leadership for Excellence and Renewal in Mathematics Education*. An Emergent Model for Supporting Beginning Teachers. Paper presented at the California Council of Teacher Educators

Papers, when available, can be downloaded directly from <http://renew.education.ucsb.edu/research.htm> as they become available
Or by clicking on the research menu option of RENEW's new website:
<http://renew.education.ucsb.edu>

To date we have used several data collection instruments (referenced throughout this document). These instruments are included in appendices of the Findings section of this report.