

講演

なぜ、複数分野を巻き込んだ極端降水に関するシンポジウムか？

Why a Symposium on Extreme Precipitation Involving Multiple Disciplines?

ゲイリー・エステス

「カリフォルニア極端降水シンポジウム」創立主催者

Gary Estes

Founding Coordinator of “California Extreme Precipitation Symposium”

Biographic Sketch: Gary Estes

Before moving to Northern California in 1989, Gary worked in various jobs, including teacher, paralegal, energy consultant, and facility manager. After he and his wife completed the design and construction of their home in Auburn, California in 1990, Gary focused on community service. Living near the proposed Auburn Dam for flood control, he became interested in learning about the ingredients of extreme precipitation events responsible for floods used to justify the dam.

As the founder and coordinator, Gary has been the force making possible the California Extreme Precipitation Symposium since 1994 (formerly known as the California Weather Symposium). He has guided the Symposium's growth over the 20 years of its existence expanding from 55 to an average of 190 attendees in the last three years.

Gary infused the Symposium with the purpose of emphasis on extreme precipitation events in California watersheds responsible for producing floods and placing life and property at risk. His hope is this focused attention will help increase our knowledge and understanding of extreme precipitation events, so we can (1) provide better information on the size of large floods for land use and flood risk management planning efforts and (2) increase the warning time in advance of large floods.

Each year Gary develops the theme, identifies potential topics and speakers, invites speakers, develops the budget, writes the announcement, compiles the Proceedings and sees to its printing, makes facility and catering arrangements, orchestrates registration, collects the money and pays the bill, maintains the mailing list, and brings all the pieces together. He coordinates with sponsoring organizations, such as, the Center for Watershed Sciences at the University of California at Davis.

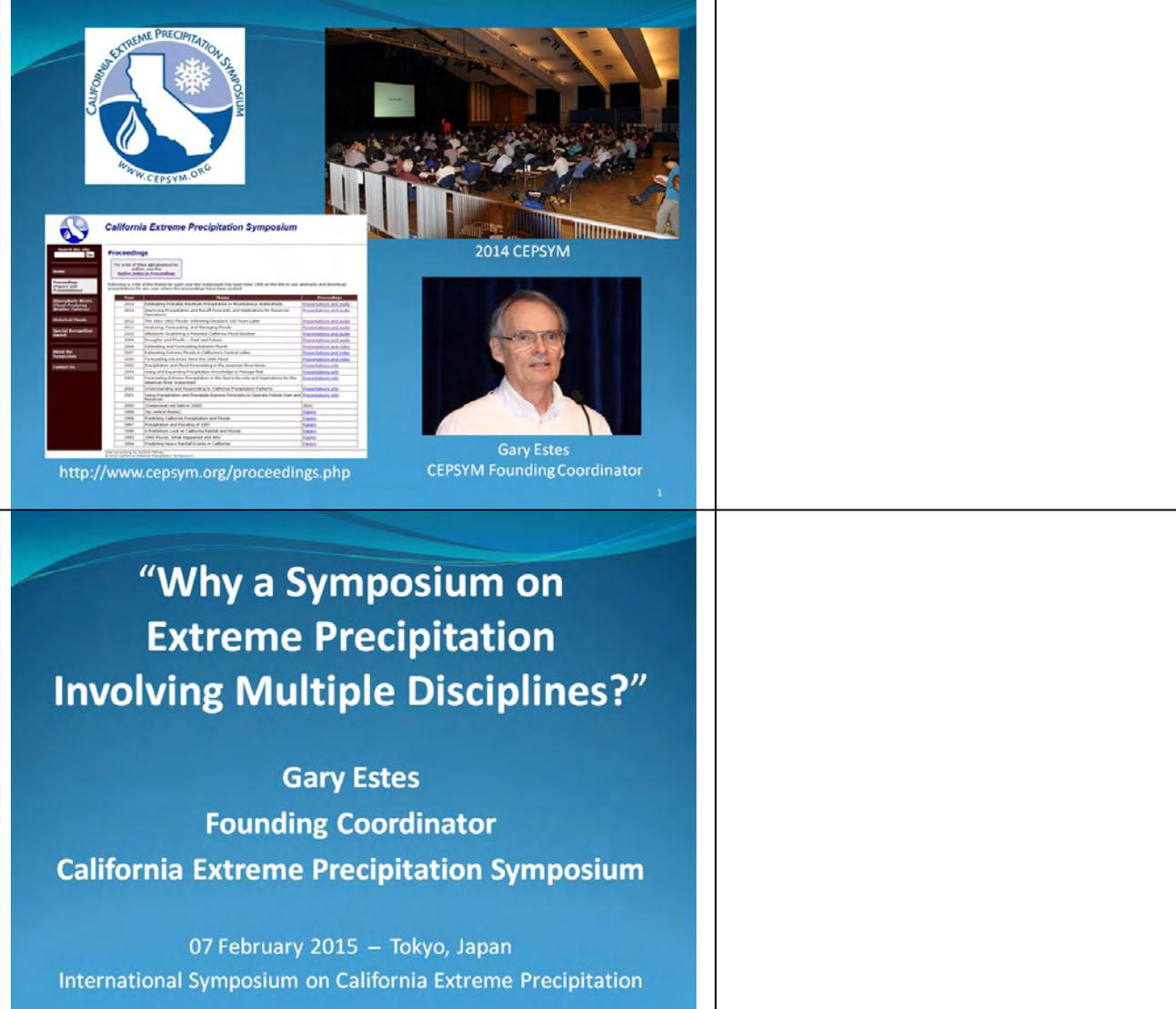
Currently, Gary is working to expand the Symposium and partner with others to administer and coordinate two events each year – one in Northern California and one in Southern California. The Center for Western Weather and Water Extremes within the Scripps Institution of Oceanography at the University Of California, San Diego is sponsoring the new Southern California event in 2015.

Memberships: American Geophysical Union, Associate Member
American Meteorological Society, Associate Member
Association of State Floodplain Managers
Floodplain Management Association

Education: Paralegal Training Program, University of San Diego, 1975
Bachelor of Arts, Virginia Tech, 1970

スライド

英語オリジナル



California Extreme Precipitation Symposium
WWW.CEPSYM.ORG

2014 CEPSYM

Gary Estes
CEPSYM Founding Coordinator

<http://www.cepsym.org/proceedings.php>

1

“Why a Symposium on Extreme Precipitation Involving Multiple Disciplines?”

Gary Estes
Founding Coordinator
California Extreme Precipitation Symposium

07 February 2015 – Tokyo, Japan
International Symposium on California Extreme Precipitation

<p>Outline</p> <ol style="list-style-type: none"> 1. What is CEPSYM? 2. How did CEPSYM get started? 3. Who attends? 4. Why involve multiple disciplines? 5. Why do people attend? 6. Who speaks? 7. Who sponsors and why? 8. How is CEPSYM organized? 9. Summary 	<p>Why am I talking to you? I am not an engineer. I am not a meteorologist. I am not a hydrologist. I am a generalist.</p> <p>Eight questions answered based on 20 years of experience organizing and running California Extreme Precipitation Symposium (CEPSYM).</p> <p>Started in 1994 and held annually, except for 2000.</p>
<p>"Discovery consists in seeing what everybody else has seen and thinking what nobody else has thought."</p> <p>Albert Szent-Györgyi (1893-1986)</p>	<p>As you consider what I say, please consider the wisdom found in this quotation.</p> <p>Albert Szent-Györgyi was awarded The Nobel Prize in Physiology or Medicine 1937.</p>
<p>1. What is CEPSYM?</p> <ul style="list-style-type: none"> • One day, annual meeting of technical and scientific professionals • <i>Focus:</i> Sharing research and technology about hydrology and meteorology • <i>Scope:</i> California extreme precipitation events producing floods and creating risks to life and property 	

Desired Long Term Results

Use shared science and technology to:

- Improve estimates of major floods used for flood risk management planning
- Increase the warning time in advance of major floods by continual improvements to forecasting skill
- Reduce property damaged and lives impacted by floods

A flood risk manager once described how we can measure success in achieving these results: “We had a flood and nothing bad happened.”

Sharing Knowledge

Almost all papers and presentations given over 20 years are found at:

cepsym.org

CEPSYM is intended to share technical and scientific knowledge. Our website is how we share.

Starting in 2006 there is either a video or audio recording of each presentation.

California Extreme Precipitation Symposium

Search this site:

Home

Proceedings (Papers and Presentations)

Atmospheric Rivers (Flood Prediction, Weather Patterns)

Historical Floods

Special Recognition Award

About the Symposium

Contact Us

Proceedings

For a list of sites alphabetized by author - see the [Author Index to Proceedings](#)

Following is a list of the theme for each year the Symposium has been held. Click on the link to see abstracts and download presentations for any year where the proceedings have been posted.

Year	Theme	Proceedings
2014	Estimating Probable Maximum Precipitation in Mountainous Watersheds	Presentations and audio
2013	Improving Precipitation and Runoff Forecasts and Implications for Reservoir Operations	Presentations and audio
2012	The 1951-1952 Floods: Informing Decisions 150 Years Later	Presentations and audio
2011	Analyzing, Forecasting, and Managing Floods	Presentations and audio
2010	AtRiskStorm: Examining a Potential California Flood Disaster	Presentations and audio
2009	Droughts and Floods - Past and Future	Presentations and audio
2008	Estimating and Forecasting Extreme Floods	Presentations and video
2007	Estimating Extreme Floods in California's Central Valley	Presentations and video
2006	Forecasting Advances Since the 1986 Flood	Presentations and video
2005	Precipitation and Flood Forecasting in the American River Basin	Presentations only
2004	Using and Expanding Precipitation Knowledge to Manage Risk	Presentations only
2003	Forecasting Extreme Precipitation in the Sierra Nevada and Implications for the American River Watershed	Presentations only
2002	Understanding and Responding to California Precipitation Patterns	Presentations only
2001	Using Precipitation and Pineapple Express Forecasts to Operate Folsom Dam and Reservoir	Presentations only
2000	[Symposium not held in 2000]	[N/A]
1999	[No central theme]	Papers
1998	Predicting California Precipitation and Floods	Papers
1997	Precipitation and Flooding of 1997	Papers
1996	A Prehistoric Look at California Rainfall and Floods	Papers
1995	1995 Floods: What Happened and Why	Papers
1994	Predicting Heavy Rainfall Events in California	Papers

Web Consulting by Dorene Haines
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Website allows for sharing: <http://cepsym.org/proceedings.php>

Screen capture of CEPSYM website page showing the theme of each Symposium over 20 years. This list shows the diversity of topics covered. Each year a different theme is created. This guides the subject areas and types of speakers invited.

Year	Theme
1994	Predicting Heavy Rainfall Events in California
1995	Floods: What Happened and Why
1996	A Prehistoric Look at California Rainfall and Floods
1997	Precipitation and Flooding of 1997
1998	Predicting California Precipitation and Floods
1999	[No central theme]

	2000 [Not held]
	2001 Using Precipitation and Pineapple Express Forecasts to Operate Folsom Dam and Reservoir
	2002 Understanding and Responding to California Precipitation Patterns
	2003 Forecasting Extreme Precipitation in the Sierra Nevada and Implications for the American River Watershed
	2004 Using and Expanding Precipitation Knowledge to Manage Risk
	2005 Precipitation and Flood Forecasting in the American River Basin
	2006 Forecasting Advances Since the 1986 Flood
	2007 Estimating Extreme Floods in California's Central Valley
	2008 Estimating and Forecasting Extreme Floods
	2009 Droughts and Floods — Past and Future
	2010 ARkStorm: Examining a Potential California Flood Disaster
	2011 Analyzing, Forecasting, and Managing Floods
	2012 The 1861-1862 Floods: Informing Decisions 150 Years Later
	2013 Improving Precipitation and Runoff Forecasts and Implications for Reservoir Operations
	2014 Estimating Probable Maximum Precipitation in Mountainous Watersheds

2. How did CEPSYM get started?

- Major Northern California flood (1986)
- Proposal to build dam to manage flood risk to city downstream (1991)
- Meteorologist saw weather pattern causing major Northern California floods
- He researched and documented pattern
- His idea . . .

Floods are a major public safety problem for people of California. After a major flood in Northern California in 1986, proposals developed for managing the flood risk on the American River upstream of the City of Sacramento and surrounding metropolitan area, included building another dam. A meteorologist saw a weather pattern causing major Northern California floods. He researched this weather pattern and documented its existence. His idea was . . .

Idea: Apply weather pattern

- Use weather pattern knowledge to operate existing dam
- Use forecasts to release stored water before precipitation arrives
- Create more flood storage space
- Prevent building another dam by removing need for dam

First Symposium

- *Question:* How to influence public policy decision to not build another dam?
- Hold one time technical and scientific symposium to influence engineers and consultants who advise public policy makers
- When asked, attendees (55) found value in meeting and wanted to meet again
- 20 years later CEPSYM continues

Question was: How to influence public policy decision to not build another dam?
What to do with his researched knowledge about a flood producing weather pattern and using this knowledge to operate existing dam?
My solution: Hold one time technical and scientific symposium to influence public policy decision makers about flood risk management options which did not require another dam. Show the need for another dam is not necessary.
The 55 attendees were asked at the end of the day: Did they find value in this meeting? Would they like to meet next year? They said yes and 20 years later CEPSYM continues.

What Happened to Weather Pattern Idea?

We now know . . .

- **Atmospheric rivers** cause largest floods and provide rain and snow needed for water supply in California
- Study underway to evaluate use of weather pattern knowledge to operate the existing dam
- Proposed dam not built

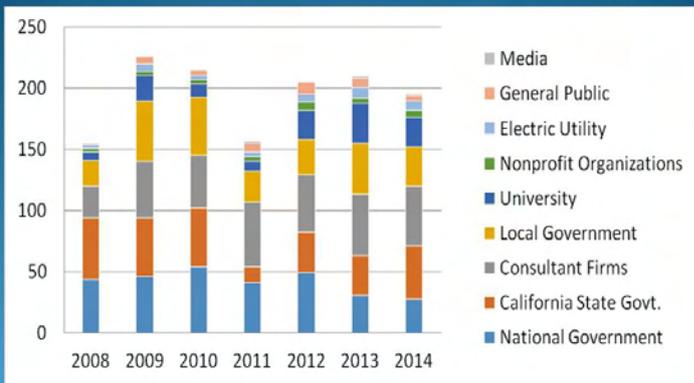
12

3. Who attends?

- Meteorologists (forecast and research)
- Hydrologists (forecast and research)
- Civil engineers
- Water resources engineers
- Dam operators
- Floodplain managers
- Emergency response managers
- Flood control agency managers
- Levee maintenance managers
- Graduate students

13

CEPSYM Registration by Organization Type



14

Table with numbers available in Appendix.

4. Why Involve Multiple Disciplines?

- Work specialization is key characteristic of our complex societies
- Work specialization can limit our thinking about solutions to problems
- Flood disasters impact many segments of complex societies at once by disrupting normal daily activity

15

Multiple Disciplines (continued)

- Disaster Management requires multiple disciplines working together on
 - Prevention
 - Forecasting
 - Warning
 - Responding
 - Rescuing
 - Recovery

16

CEPSYM is focused on these three areas.

Multiple Disciplines (continued)

- New perspectives can be gained by exposure to other disciplines
- CEPSYM is opportunity:
 - To meet informally and exchange science and technology
 - Improve communication and understanding across disciplines

17

5. Why do people attend?

"What did you like best about the Symposium and why?" [Feedback question]

- Organization
- Networking
- Diversity of Topics
- Responses help improve our processes each year and identify some of main reasons why people attend

18

At the end of each Symposium a feedback form is distributed for audience input to several questions. One question always asked is: What did you like best about the Symposium and why?

The responses help to improve our processes each year and identify some of the main reasons why people attend.

A representative sampling of their comments follows:

Organization

"Well organized, low cost, convenient, and unique."

"Excellent speakers. Relaxed atmosphere. Nice long breaks for networking."

"Excellent choice of speakers and attention to details to create a 'smoothly run' program."

19

Networking

"Chance to meet others in the field."

"The networking at conferences like this can be almost as important as the presentations."

"Opportunity to learn about the different activities and/or research going on in different organizations."

20

Diversity of Topics

"Great content. Interdiscipline involvement is a key attribute of Symposium."

"Includes current and relevant topics and packs in a great program in one day."

"Diversity and depth/quality of presentations."

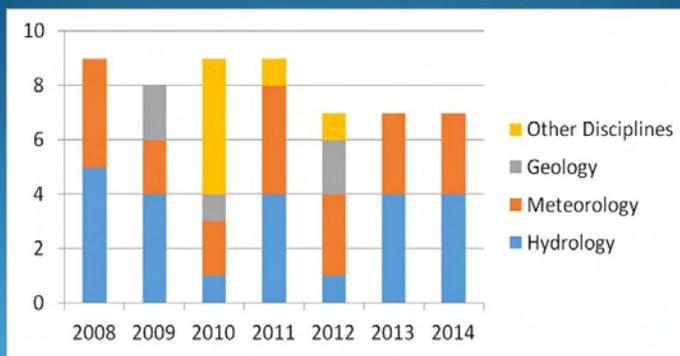
21

6. Who speaks?

- Usually technical members of flood risk management community and researchers in hydrology and meteorology fields
- Invited because their work relates to the theme in some way

22

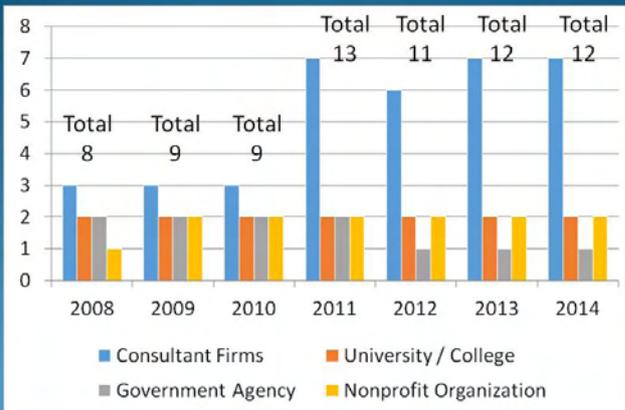
CEPSYM Speakers by Discipline



23

Appendix has table showing number of speakers by employer type, by discipline, and by year.

7. Who sponsors and why?



CEPSYM Sponsors by Organization Type

24

In Appendix is table of CEPSYM Sponsors by Organization Type: 2008-2014.

Why do organizations sponsor?

- Learn about work of others
- Forum for interdiscipline networking
- Educate flood risk management community
- Educate next generation of professionals

25

8. How is CEPSYM organized?

- 1) Different theme each year
- 2) Always have meteorology and/or hydrology speakers plus other disciplines appropriate to theme
- 3) Focus on technical and scientific topics

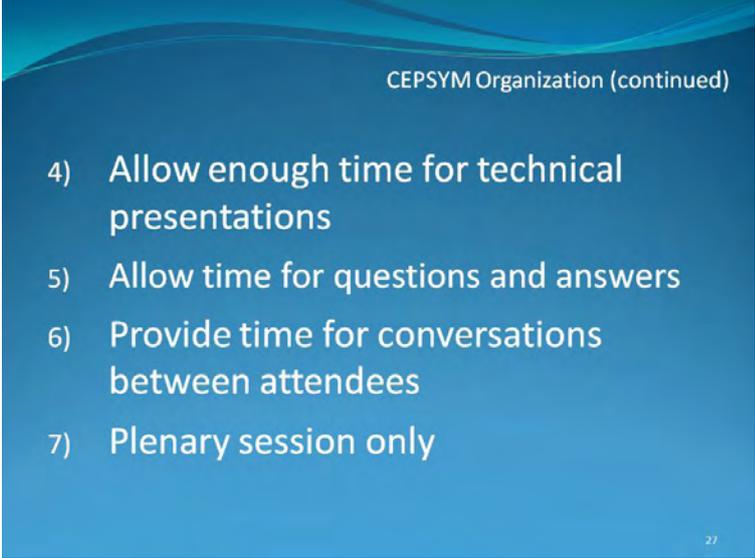
26

Note: List is not in any priority order.

1) A different theme each year is one of the reasons many people come year after year. Also a different mix of people and disciplines are present based on the theme.

2) From my experience, meteorology and hydrology are the two important disciplines for advancing improvements in flood risk management. Each theme determines the mixture of disciplines needed to support it.

3) In California, there are more public policy meetings on flood risk management issues. There are

	<p>fewer technical and scientific meetings on these issues. Improving the technical and scientific knowledge used in making flood risk management decisions is important for guiding these public policy decisions.</p>
 <p>CEPSYM Organization (continued)</p> <ul style="list-style-type: none"> 4) Allow enough time for technical presentations 5) Allow time for questions and answers 6) Provide time for conversations between attendees 7) Plenary session only <p>27</p>	<p>4)Balancing the available time for a one day event requires a compromise between the number of talks and how much time each speaker is allotted. My approach is to provide more time for talks and also have time for some questions and answers. It is a choice between quantity and quality. My bias is quality.</p> <p>5)Questions and answers can produce some of the most important information provided by a talk. Also questions can clarify points made by the speaker which were confusing to the audience. Some mistakes in the presentation have been corrected by a question.</p> <p>6)Time for attendees to meet and talk is included by having a morning continental breakfast, breaks with sufficient time (always a challenge as to how long a break), and one-hour lunch without a speaker. Comments from attendees supports this approach.</p> <p>7)Multiple day conferences usually have several concurrent sessions where people get a choice of many topics. People have too many choices and will usually focus on their discipline when deciding which session to attend. With only a plenary session, everyone is exposed to the same presentations. This is the opportunity to share knowledge across disciplines</p>

- 8) Informal setting
- 9) Speakers are our guests
- 10) Invite a diverse audience
- 11) Keep costs low to encourage diverse audience, especially students

28

8) Attendees are more friendly when the setting is informal. My experience has found an informal setting is easier to produce in university facilities. Nearly everyone attending CEPSYM went to university and is comfortable with the environment. Many attendees graduated from University of California, Davis where CEPSYM has been held since 2008. These attendees like returning to the campus where they spent so much time. University location also sets an expectation of a learning experience.

9) Speakers are invited to speak on a topic. Since speakers did not initiate the idea of speaking, they are our guest and do not pay the registration fee. This is a small gesture of thanking them for investing the time and effort required to prepare a talk/presentation, and to attend and speak.

10) A diverse audience is important because flood risk management, as part of Disaster Management, requires multiple disciplines working together. This is because we live in complex societies. Disasters, like floods, disrupt many segments of society at once.

11) The cost to attend can either limit or encourage attendance. A low price will help more students attend. Everyone pays for attending. Some students get working scholarships to attend.

9. Summary

- 20 years experience (so far)
- Sharing research and technology in one-day event and via the website
- About 200 attendees, 7-9 speakers, a dozen sponsors
- Diverse topics and themes
- Continuous improvement year-to-year

29

CEPSYM Future Directions

- 2015 expansion to CEPSYM – North and CEPSYM – South
- Specific to Southern California extreme precipitation and flood risk management issues
- Floodplain Management Association (FMA) to become CEPSYM coordinator over time

30

Thank you for listening
Questions?

Email Gary Estes: gary@cepsym.org



31

Appendix

Supporting data for:

- CEPSYM Registration by Organization Type (Page 13)
- CEPSYM Speakers by Discipline (Page 23)
- CEPSYM Sponsors by Organization Type (Page 24)

32

CEPSYM Registration by Organization Type: 2008-2014

Organization Type	2008	2009	2010	2011	2012	2013	2014	Avg.
National Government	43	46	54	41	49	30	27	41.4
California State Govt.	51	48	48	13	33	33	44	38.6
Consultant Firms	26	46	43	53	47	50	49	44.9
Local Government	21	50	48	25	29	42	32	35.3
University	7	21	11	8	24	33	24	18.3
Nonprofit Organizations	3	3	3	4	7	4	6	4.3
Electric Utility	3	6	4	4	6	9	8	5.7
Public	1	6	4	7	10	7	4	5.6
Media	1		1	2	1	2	1	1.3
TOTAL	156	226	216	157	206	210	195	195.1

Registration varies year-to-year as the theme changes.

In 2011 the budget of the California State government was reduced by the Great Recession. Money for travel and attending conferences was reduced. The result was California State government attendance decreased by 40 people.

CEPSYM Speakers by Discipline and Employer Type: 2008 - 2014

Year	Total Speakers	Hydrology		Meteorology			Geology			Other Disciplines		
		Nation. Govt.	Calif. Govt.	Nation. Govt.	Calif. Govt.	Local Govt.	University	Consultant	Nation. Govt.	Calif. Govt.	Local Govt.	Consultant
2008	9	3		2	3							
2009	8	2	1	1	1			1				
2010	9	1			2					1	2	2
2011	9	2	1		1	4				1		
2012	7			1	1	1	1		1	1		1
2013	7	2		1	1	3						
2014	7	3	1		1		1	1				

Employer Type abbreviations used in table are:

Nation. Govt. = National Government

Calif. Govt. = California State Government

Local Govt. = Local Government

34

CEPSYM Sponsors by Organization Type:
2008-2014

Organization Type	2008	2009	2010	2011	2012	2013	2014
Consultant Firms	3	3	3	7	6	7	7
University / College	2	2	2	2	2	2	2
Government Agency	2	2	2	2	1	1	1
Nonprofit Organization	1	2	2	2	2	2	2
Total	8	9	9	13	11	12	12

Some sponsors provide money and others provide staff time and access to campus facilities. The number of sponsors has increased over the years for two reasons:

1. Some organizations requested to become a sponsor.
2. Other organizations were asked to sponsor in order to help cover increased costs.