NOAA | *training*

A Synopsis of the Fiscal Year 2008

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

A Synopsis of Fiscal Year 2008 Training
Provided by the
NOAA Coastal Services Center

In keeping with the mission of the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center, training programs at the Center this year offered a number of courses designed to help coastal professionals acquire new information, skills, and tools to improve coastal zone management. The Center's training strategy is to work in partnership with a range of agencies and organizations, including disseminating networks such the National Estuarine Research Reserve System (NERRS), Sea Grant, federal resource management agencies, and many others, to meet identified training needs. The Center in effect "buys down" the cost of developing training for multiple localities by developing the training at the national level and then working with local entities to implement it, while "tweaking" to ensure local relevancy.

Classroom trainings covered a wide range of topics, from process skills to coastal issues and geospatial technology. More than 1,160 coastal professionals from 40 states and territories attended Center trainings in fiscal year 2008. A review of post-course evaluations revealed exceptionally positive feedback: 95 percent reported that their time was well spent, and 94 percent reported achievement of the learning objectives.

In addition, the Center offered a number of e-learning courses that logged thousands of user sessions. Several Web courses were updated this year as a result of external and internal reviews.

I. Courses Offered (Descriptions for most courses are available at *www.csc.noaa.gov/training*/.)

Training Offered Through the Coastal Learning Services (CLS) Program:

- Project Design and Evaluation
- Public Issues and Conflict Management
- Negotiating for Coastal Resources
- Coastal Community Planning and Development (with Human Dimensions program)
- Managing Visitor Use in Coastal and Marine Protected Areas
- Planning for Meaningful Evaluation (Pilot)
- Survival Skills for Coastal Resource Managers (Web)
- Web Content Design and Evaluation (Web)
- Needs Assessment Training (Web)
- Public Trust Doctrine (Web)

Geographic Information System (GIS) Training Offered through the Integration and Development (I&D) Program:

- Introduction to ArcGIS
- Coastal Applications Using ArcGIS
- Coastal Inundation Mapping

- GIS Tools for Strategic Conservation Planning
- GIS for Managers

Training Offered through the Coastal Remote Sensing (CRS) Program:

- Remote Sensing for Spatial Analysts

II. Course Locations

In fiscal year 2008, courses were taught in 23 different states, as well as in Washington D.C., Puerto Rico, the Virgin Islands, and at the Center. The geographic range of locations covered all the major coasts in the continental U.S., Hawaii, Puerto Rico, and the Virgin Islands. Sixty-one training classes were held, representing 126.5 training days.
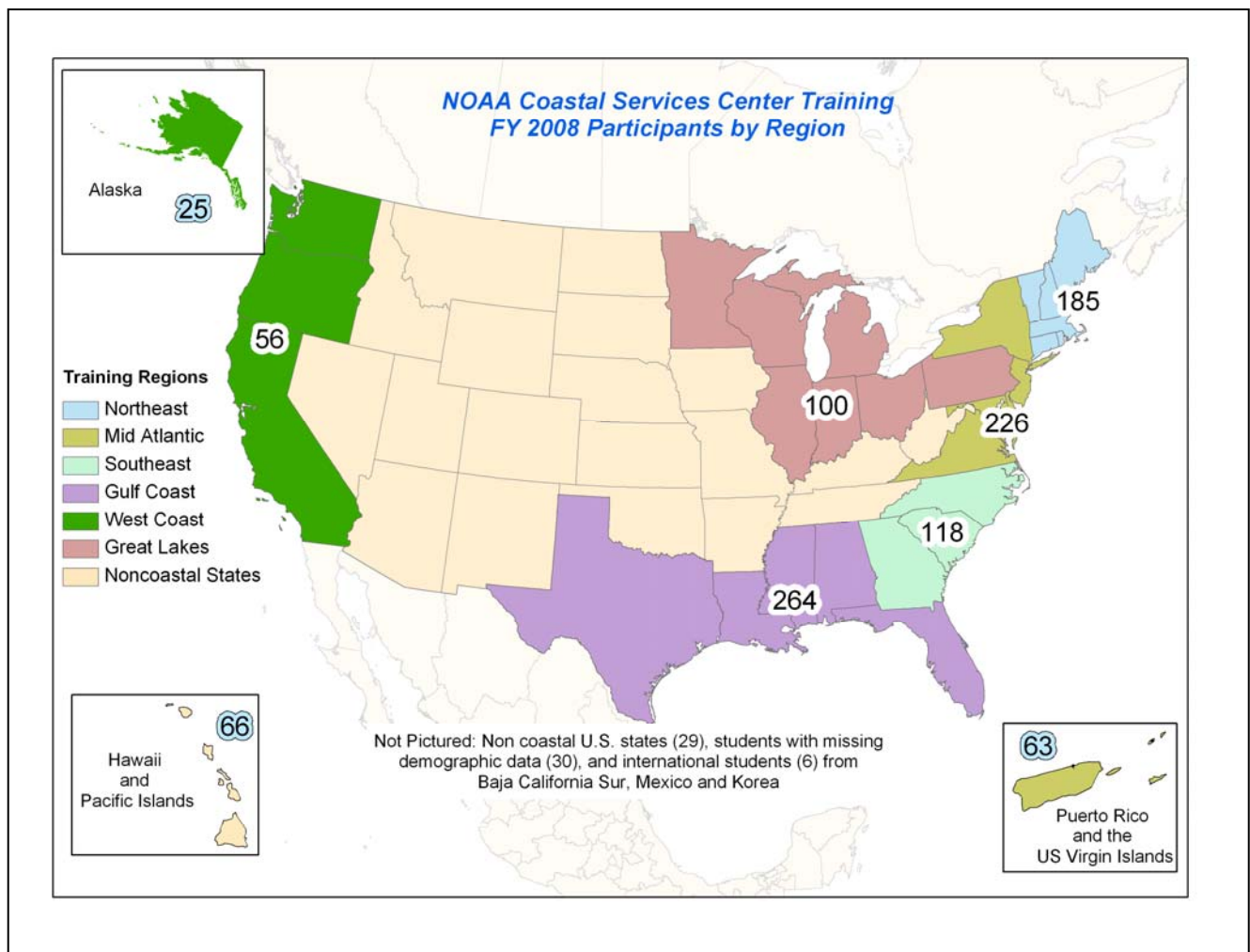
Table 1. Location of Center Trainings and Number of Training Days

State	No. of Courses	No. of Participants	No. of Training Days
AK	1	20	2.5
CA	2	47	4.5
CT	2	34	4
DC	1	25	2
DE	1	31	2
FL	8	157	16.5
HI	4	66	8
IN	2	43	4.5
MA	1	17	2
MD	5	63	8.5
ME	1	27	2
MN	1	22	2
MS	3	67	6
NC	2	50	4
NH	4	75	8.5
NJ	1	32	2.5
NY	3	83	6.5
OH	1	25	2
PR	2	40	4
RI	2	28	4
SC (at Center)	7	85	14.5
TX	2	40	4
VI	1	23	2.5
VT	1	20	2
WI	1	9	2.5
WV	2	39	5
International	0	0	0
TOTALS:	**61**	**1168**	**126.5**

III. Participant Demographics

Over 1,160 coastal professionals attended Center courses this fiscal year. They came from 38 different states, Washington, D.C., Puerto Rico, and the Virgin Islands, and represented all major coastal regions around the country. We also had 31 participants from non-coastal states and 6 from international locations. States with the largest numbers of participants included Florida, California, Maryland, North Carolina, and New York. A breakdown of participants by region is shown in Figure 1 and Tables 2 and 3. We experienced ample representation from all major coastal regions.

Figure 1. Fiscal Year 2008 Participants by Region

Table 2. Geographic Distribution of
Participants by Home State or Location

State	No. of Participants
AL	28
AK	25
CA	53
CO	1
CT	39
DC	4
DE	33
FL	144
GA	6
HI	66
ID	0
IL	0
IN	44
KY	0
LA	3
MA	39
MD	71
ME	47
MI	0
MN	24
MO	0
MS	49
NC	73
ND	0
NH	25
NJ	34
NY	82
OH	26
OR	1
PA	0
PR	39
RI	35
SC	37
TN	1
TX	42
VA	2
VI	24
VT	27
WA	2
WI	6
Intl. (Baja CA Sur, Mexico, Korea)	6
TOTALS:	**1138***

Table 3. Regional Distribution of
Participants

Region	No. of Participants	% of Total
Caribbean–U.S.	63	6%
Great Lakes	100	9%
Gulf of Mexico	264	23%
Mid-Atlantic	226	20%
Northeast	185	16%
Pacific Islands	66	6%
Southeast	118	10%
West Coast	81	7%
Non-coastal U.S.	29	3%
International	6	1%
TOTALS:	**1138***	**100%**

*These totals do not include students from the
GIS Managers Course (30), for which student
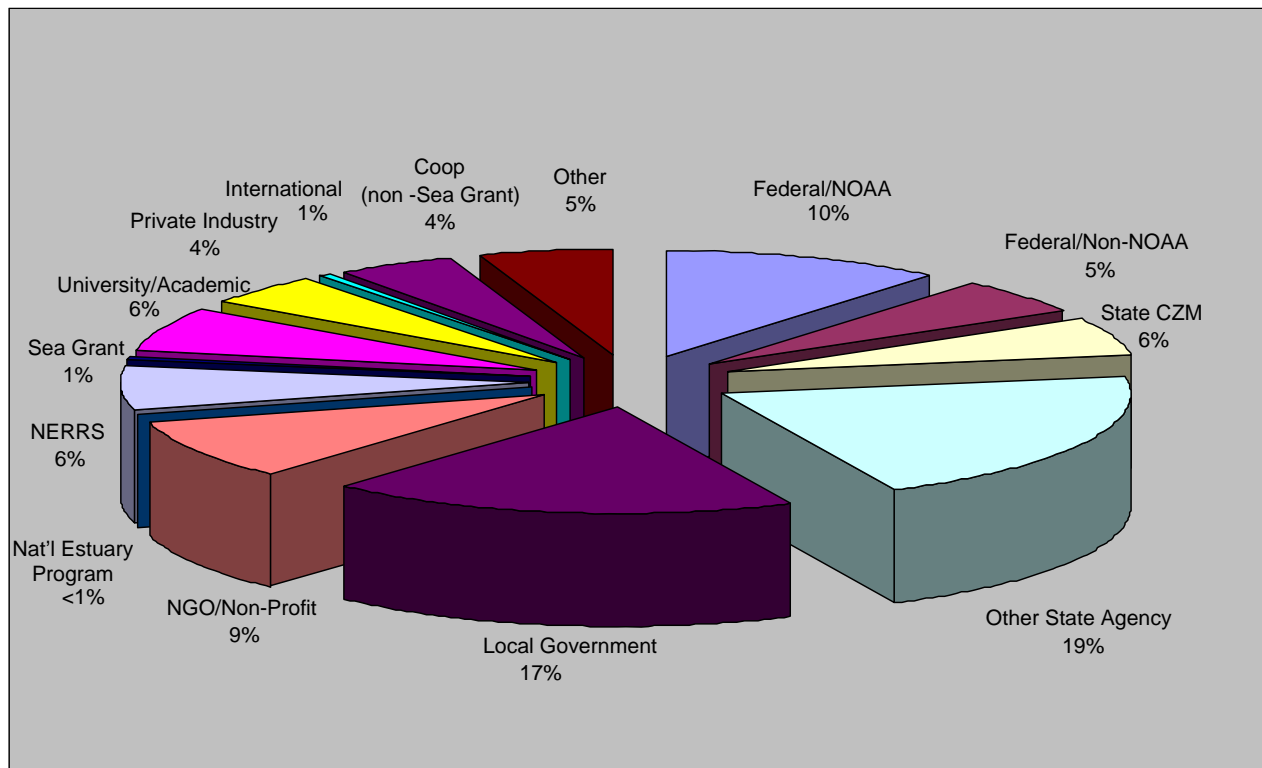demographic data were not collected.

Participant affiliations were wide-ranging and included state and federal government, academia, nonprofit organizations, and others (Table 3, Figure 2). The segment that contributed most participants was state government (289 participants, or 25 percent of total numbers). Affiliation data were available for only 1,106 participants.

Table 3. Fiscal Year 2008 Center Training: Participant Affiliation by Program

Affiliations	No. of Participants	% of Total
Federal/NOAA	122	10%
Federal/Non-NOAA	59	5%
State CZM*	65	6%
Other State Agency	224	19%
Local	201	17%
NGO/Nonprofit	101	9%
National Estuary Program*	16	<1%
National Estuarine Research Reserve*	72	6%
Sea Grant (SG)*	8	1%
University/Academic	71	6%
Private Industry	51	4%
International	6	1%
Coop, Excluding SG	52	4%
Other	58	5%
TOTALS:	1106	100%

*Data were collected at this level only for participants in CLS courses.

Figure 2. NOAA Coastal Services Center Training Participant Affiliation – Fiscal Year 2008
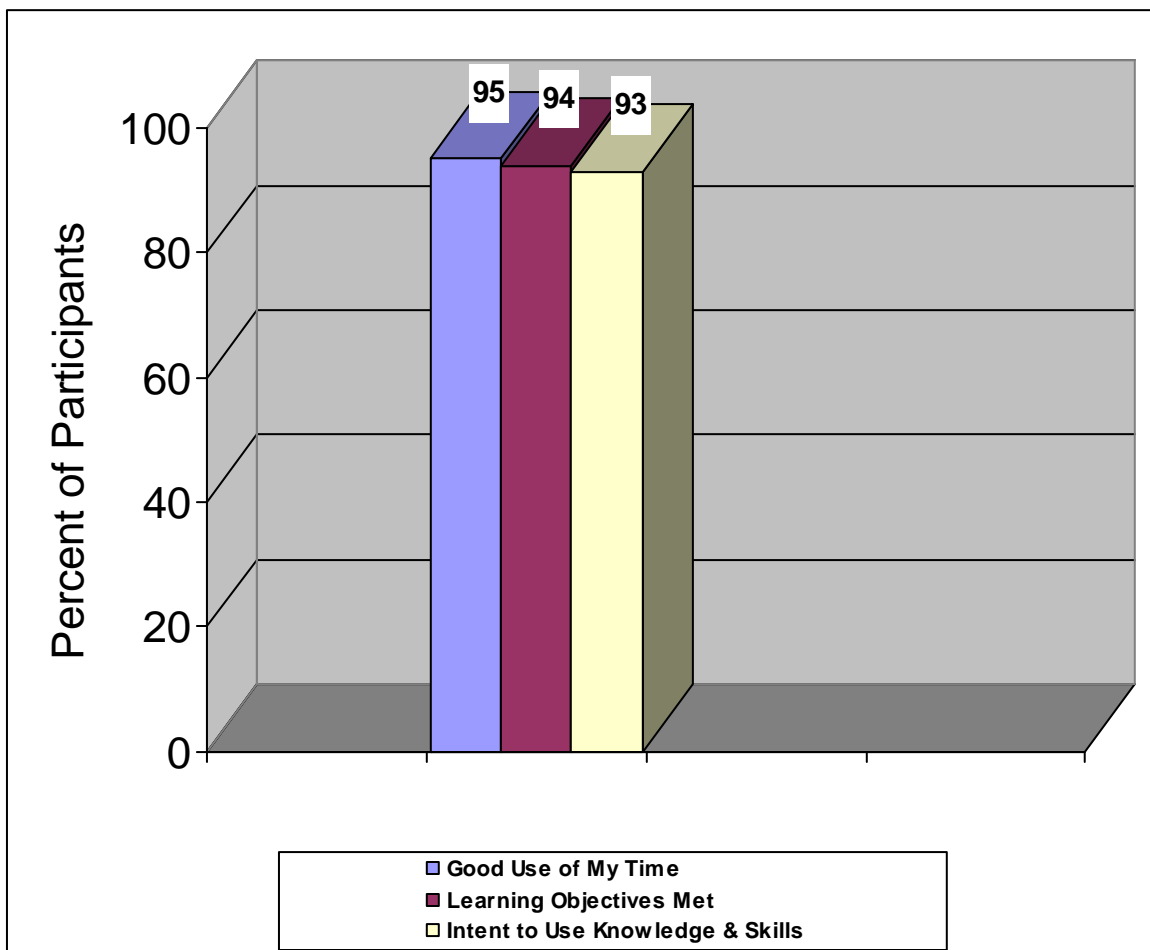
IV. Course Evaluation

In approximately 59 courses taught by the Center this fiscal year, participants submitted standard evaluation forms. These forms were reviewed for several metrics, including three key measures: (1) whether the course was a good use of a participant's time; (2) whether the course's learning objectives were met; and (3) whether the participant intended to use in the workplace the knowledge and skills gained.
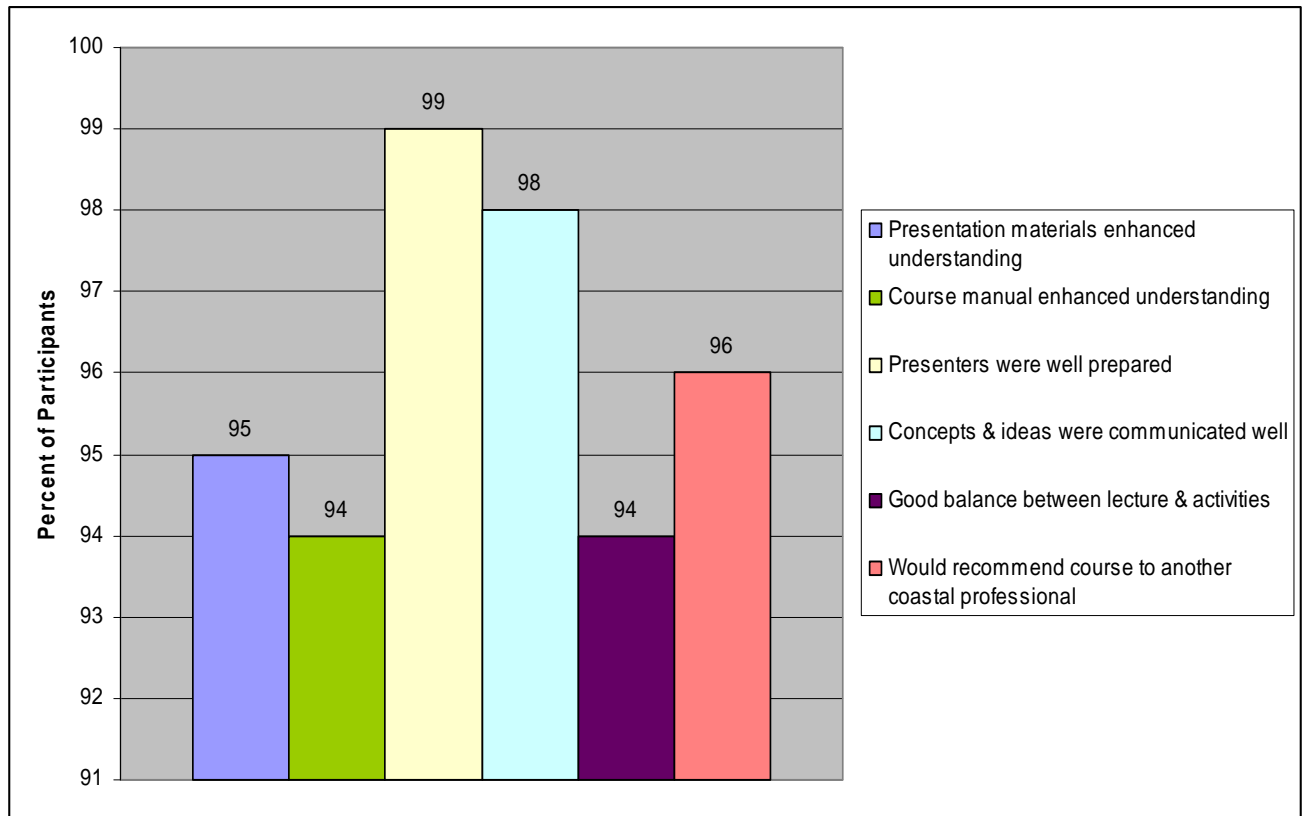
According to the responses from the 59 trainings with evaluation information, 95 percent of participants overall thought that attending the class was a good use of their time. According to skills and knowledge questions keyed to class objectives, 94 percent of participants indicated that the course had met the course objectives. Ninety-three percent of participants intended to use knowledge and skills gained at the training in their work.

Figure 3. Key Evaluation Metrics

Several other evaluation metrics were also collected. Post-training evaluation surveys from 52 classes were tabulated for a series of formative and summative metrics to help evaluate the success of the class and determine whether adjustments were needed for materials (manuals or presentations), balance between lecture and activities, or instructor preparation. Also, a response to whether participants thought enough of the learning experience to recommend the course to another coastal professional is used as a measure of overall satisfaction with the class. Results show that from 94 to 99 percent of participants were very satisfied with the parameters of these measures.

Figure 4. Other Evaluation Metrics

V. Web-Based Learning

CLS maintained and updated as necessary four distinct e-learning opportunities for Center customers this fiscal year. These included training on Survival Skills for Coastal Managers, Web Content Design and Evaluation, Needs Assessment, and the Public Trust Doctrine. This fiscal year, Survival Skills for Coastal Resource Managers and the Public Trust Doctrine Web-based trainings underwent an external and internal review and were updated based on comments and recommendations. The Needs Assessment course was reviewed by an internal expert and no changes were deemed necessary. Courses are as follows:

1. Survival Skills for Coastal Resource Managers: *www.csc.noaa.gov/cmfp/*
2. Web Content Design and Evaluation: *www.csc.noaa.gov/wcde/*
3. Needs Assessment Training: *www.csc.noaa.gov/needs/*
4. Public Trust Doctrine: *www.csc.noaa.gov/ptd/*

Web-learning data were compiled from October through July (10 months). Based on a very conservative counting technique, each course mentioned in the previous paragraph logged thousands of user sessions (*unique visits*), the highest being Needs Assessment Training, with a count of more than 18,600. *Repeat visits* for courses ranged from 347 to 3,700. *Significant paths*, which indicated users viewing four or more pages in a visit, ranged from 431 to 4,091, the higher figure for the Survival Skills for Coastal Managers course. Significant paths are viewed as a surrogate measure for participants actually taking the entire, or a good portion of, the training.

Please note that these statistics were compiled utilizing different programs. Most of the basic statistics were compiled utilizing Google Analytics, while the more detailed information on significant paths and linkages came from Funnel Web Analyzer. The mechanisms for tracking use of the websites differ between these programs and represent a new and evolving methodology for such tracking. As such, these numbers are not comparable with earlier Training Report numbers for fiscal years 2006 and 2007.

Table 4. Web-Based Learning Metrics

Course	Visits	Repeat Visits	Avg. Time on Site (Hrs:Min)	Significant Paths
Needs Assessment	18,664	3,708	5:52	3,317
Web Content Design and Evaluation	3,753	534	2:59	314
Survival Skills for Coastal Managers	8,709	678	1:25	4,091
Public Trust Doctrine	3,706	347	2:34	431
Total	38,538	5,267		8,153

Note: Only 10 months of data are represented in this chart – for an estimate of the entire year, 17% should be added to the numbers.

What can we learn from the figures cited above? A total of 5,267 visitors found something of value and return to these e-learning sites. A total of 8, 153 significant paths were created by visitors in which four or more pages are viewed. These figures indicate that visitors are deriving benefits from the content.

VII. Three-Year Perspective

This is the third year in which a Center-wide training report was generated. Training numbers did not vary greatly between the years, and the number of participants this year was very close to the numbers from last year (1,176 in 2007 vs. 1,160 in 2008). Our Web-based course offerings are likely comparable, but the numbers differed somewhat this year because of the use of new programs to analyze website visitor statistics. Evaluation metrics measured for all three years remain very high, with this year actually slightly topping the previous two years with 95 percent of participants reporting that they thought the training was a good use of their time and 94 percent reporting that course objectives were met. Additionally, this year, some new metrics are reported which shows that 94 to 99 percent of participants were satisfied with course materials such as manuals and presentations, instructor preparation, communication of concepts and ideas, and the balance between lectures and activities. Additionally, 96 percent of recipients indicated that they would recommend our courses to other coastal professionals.

Cumulatively, training over the three-year period reached almost 4,000 coastal professionals. These individuals came from 47 states, including all the coastal states plus Alaska, the Virgin Islands, Puerto Rico, and the Pacific Islands.

During this year a joint external evaluation of NOAA Coastal Services Center training (with the National Estuarine Research Reserve System's Coastal Training Program) took place. The results of that evaluation are not complete as of this report. However, in fiscal year 2009, this evaluation will serve as the base for a new project that will explore potential future directions for Center training in order to broaden our scope and reach in serving the coastal community.