

National investment in coastal research and beach nourishment in Florida



1. Beach Nourishment
2. Coastal Research
3. Advocacy!

Dr. Nicole Elko Welcomed as New ASBPA Executive Director

🕒 August 1, 2023

Nicole Elko, Ph.D., has been named the new Executive Director for the American Shore and Beach Preservation Association. She recently served ASBPA for over twelve years as Science Director providing science-based guidance to Congress, federal and state agencies, and local communities on national coastal resilience challenges. Prior to becoming the Science Director, she served on...



A CENTURY OF US BEACH NOURISHMENT

Using the ASBPA National Beach Nourishment Database, this study analyzed decadal and regional trends in beach nourishment, since its beginning in the U.S. 100 years ago.





BEACH NOURISHMENT

>3,000 cubic yards of sand

Borrow areas:

- 1) Navigation harbors and/or channels,
- 2) Nearshore or offshore sand deposits,
- 3) Upland sand sources, or
- 4) Sand transfer from one barrier island to another, separated by a tidal inlet.

METHODS

Data Sources

Duke University

Campbell and Benedet, 2006

+65 additional, incl. USACE DIS

Western Carolina University

Florida Dept of Envir Protection

N.C. Beach & Inlet Mgmt Plan

ASBPA S&T Subcommittee (Annual Updates)

Data Provided

Community Name (+ +projects)

Nourishment "events" per project

Event Dates

Volume of Sand

"Known" Cost

"Known" Length of Beach

National Beach Nourishment Database



National Beach Nourishment Database

About

Admin

Hello Admin, Approver, Editor nelko@elkocoastal.com!

Log off

<https://asbpa.org/national-beach-nourishment-database/>

Search and Zoom to Features

Zoom to State/County

AK - All Counties - Zoom

USACE Navigation Sediment Placement

Legend:

By Project (cy):

- Community Locations
- Non-USACE Volume
- USACE Volume
- Unknown Volume

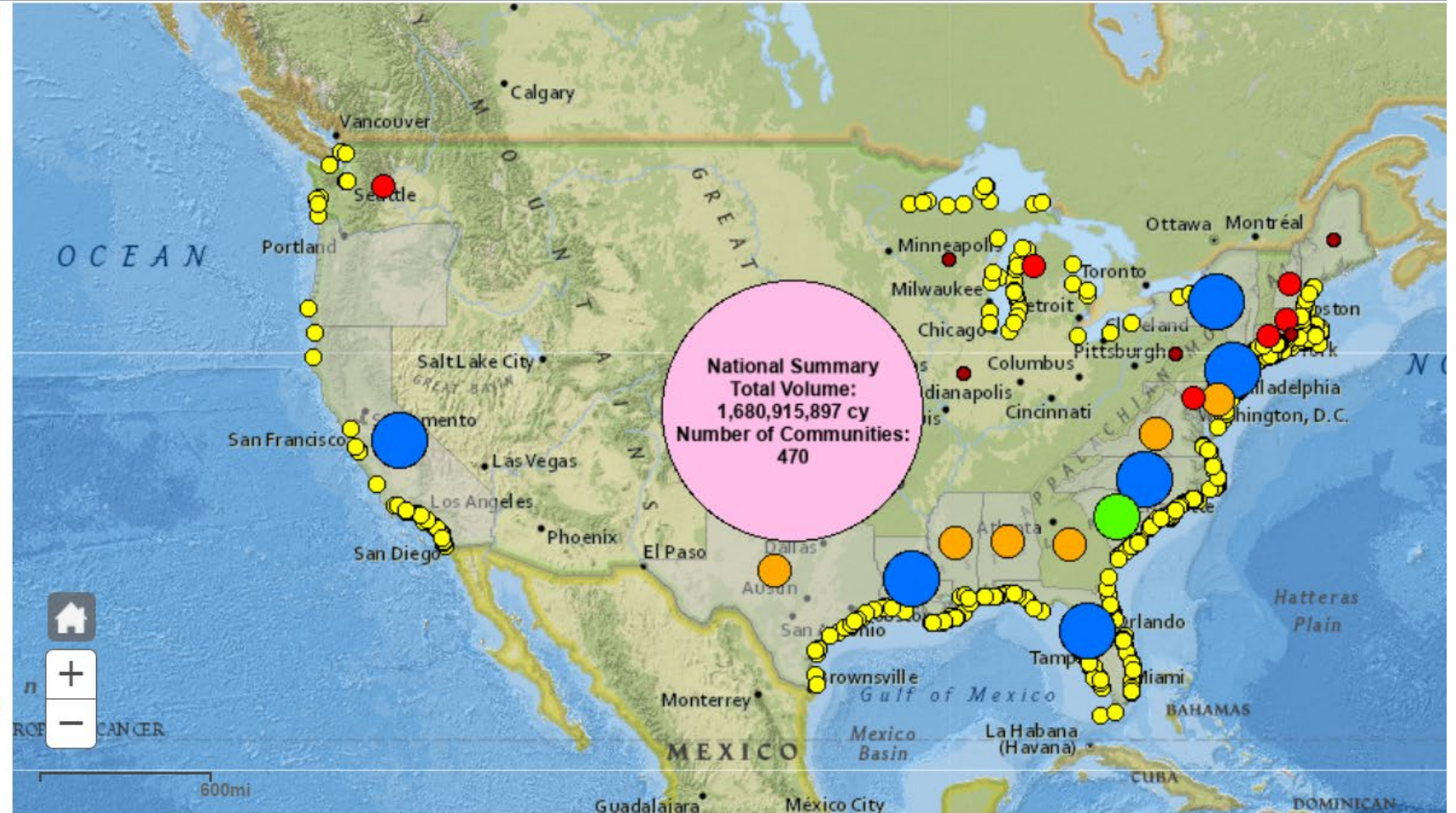
Nourishment Volume:

By State (MCY):

- <1.5
- 1.5 to <15
- 15 to <50
- 50 to <100
- 100 to <700
- >700

Switch Basemap

Export Data



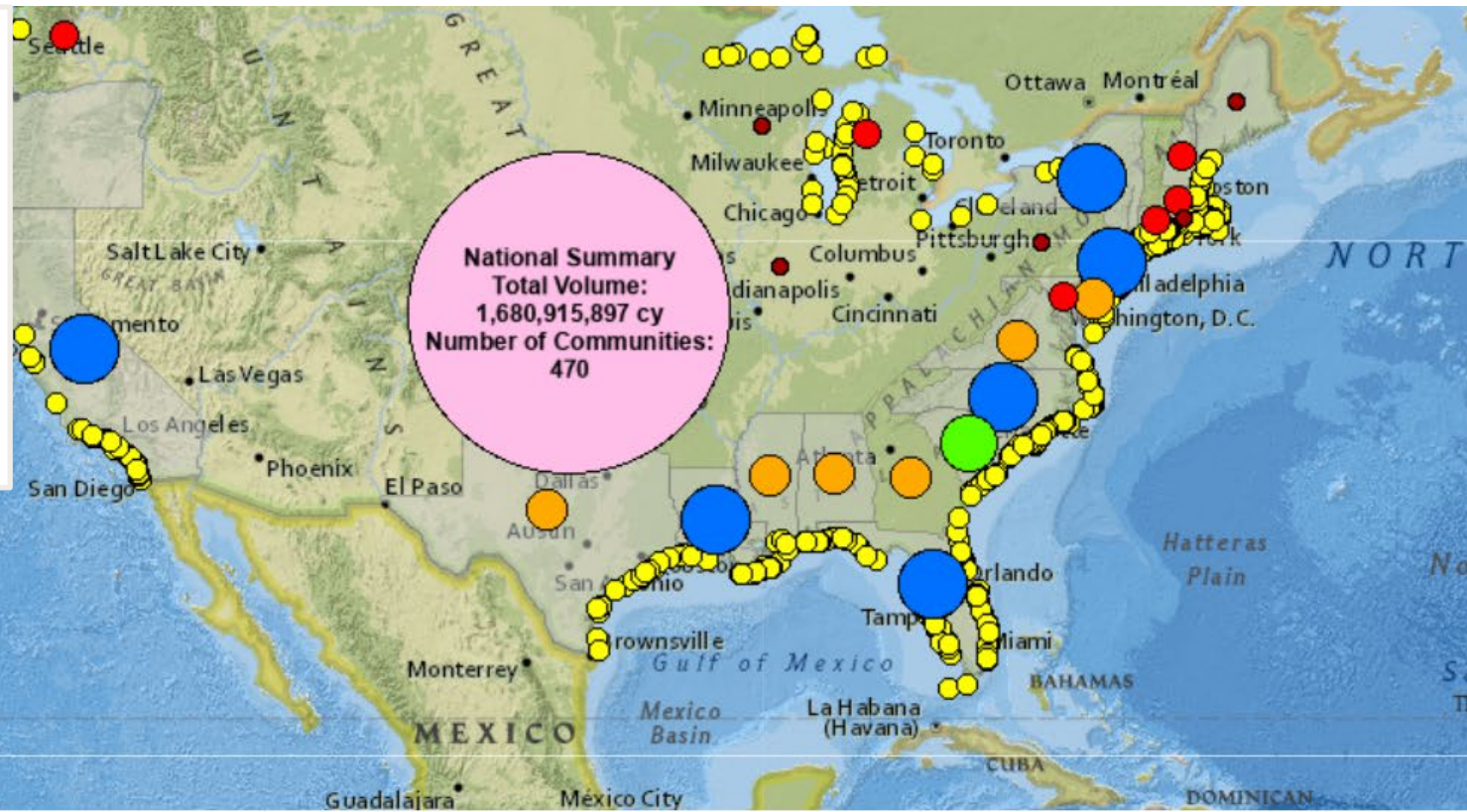
Over 3,600 events

Nationwide AK AL CA CT DE FL GA HI IL IN LA MA ME MD MI MS NC NH NJ NY OH OR PA RI SC TX VA

State	Number of	Number of Nourishment	Oldest Event	Newest Event	Known Total Cost	Total Volume (cy)	Known Length
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Florida on the National Scale

- 352M cy (21%)
- First event: 1935
- Total events: 775 (21%)
- 82 of 470 U.S. communities (17%)



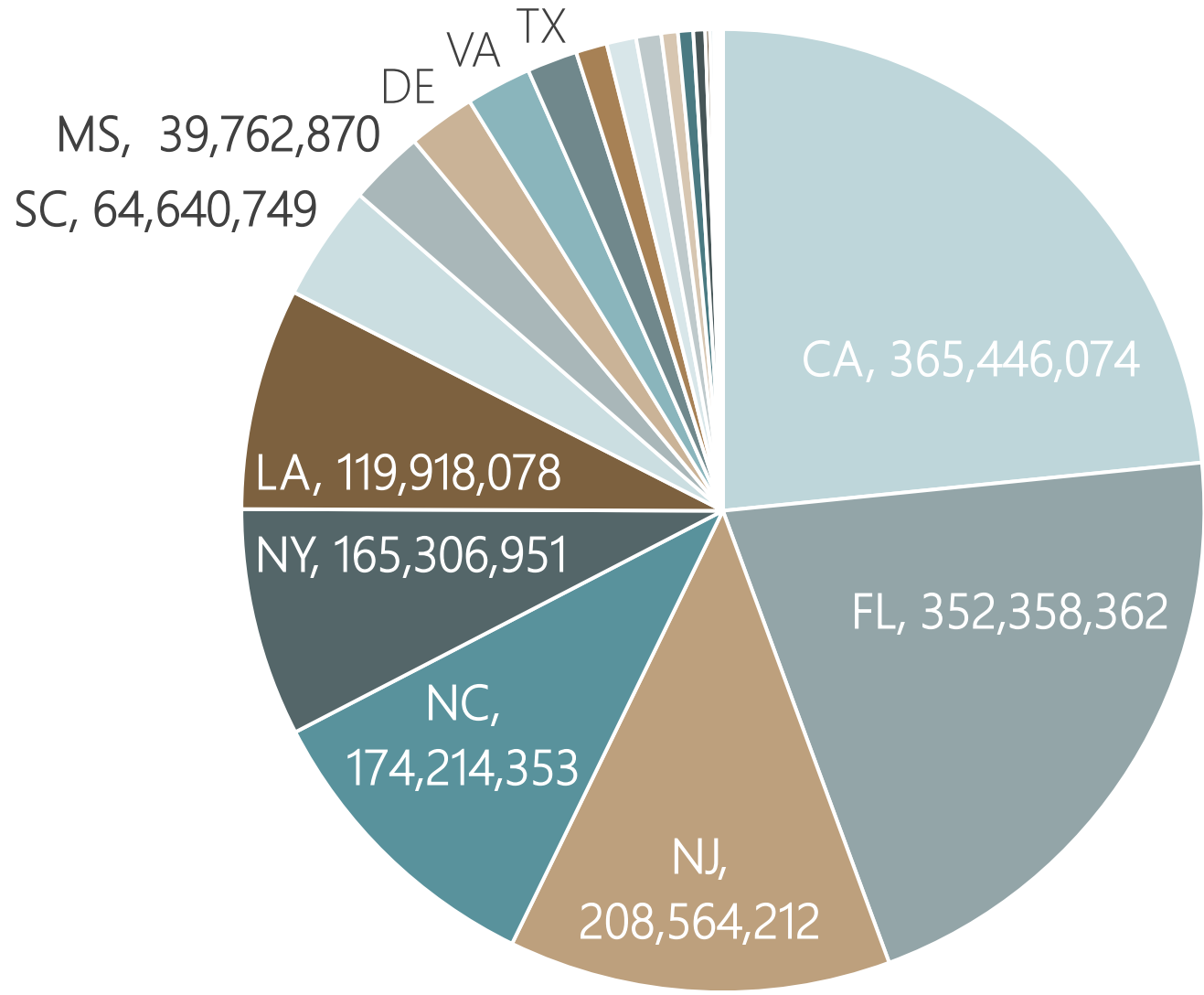
► Switch Basemap

Export Data



State	Number of Communities	Number of Nourishment Events	Oldest Event	Newest Event	Known Total Cost	Total Volume (cy)	Known Length (Miles)
DE	19	250	1953	2021	\$329,774,043	41,450,801	23.4
FL	82	775	1935	2023	\$1,945,649,172	352,358,362	292.4
GA	2	15	1964	2019	\$82,055,953	15,439,435	6.2
HI	18	26	1939	2021	\$3,500,000	227,260	1.4
IL	1	9	1999	2015	\$6,080,483	560,215	
Totals	470	3633			\$8,804,244,196	1,680,915,897	970.9

TOTAL NOURISHMENT VOLUME (CY) BY STATE: 1920-2023

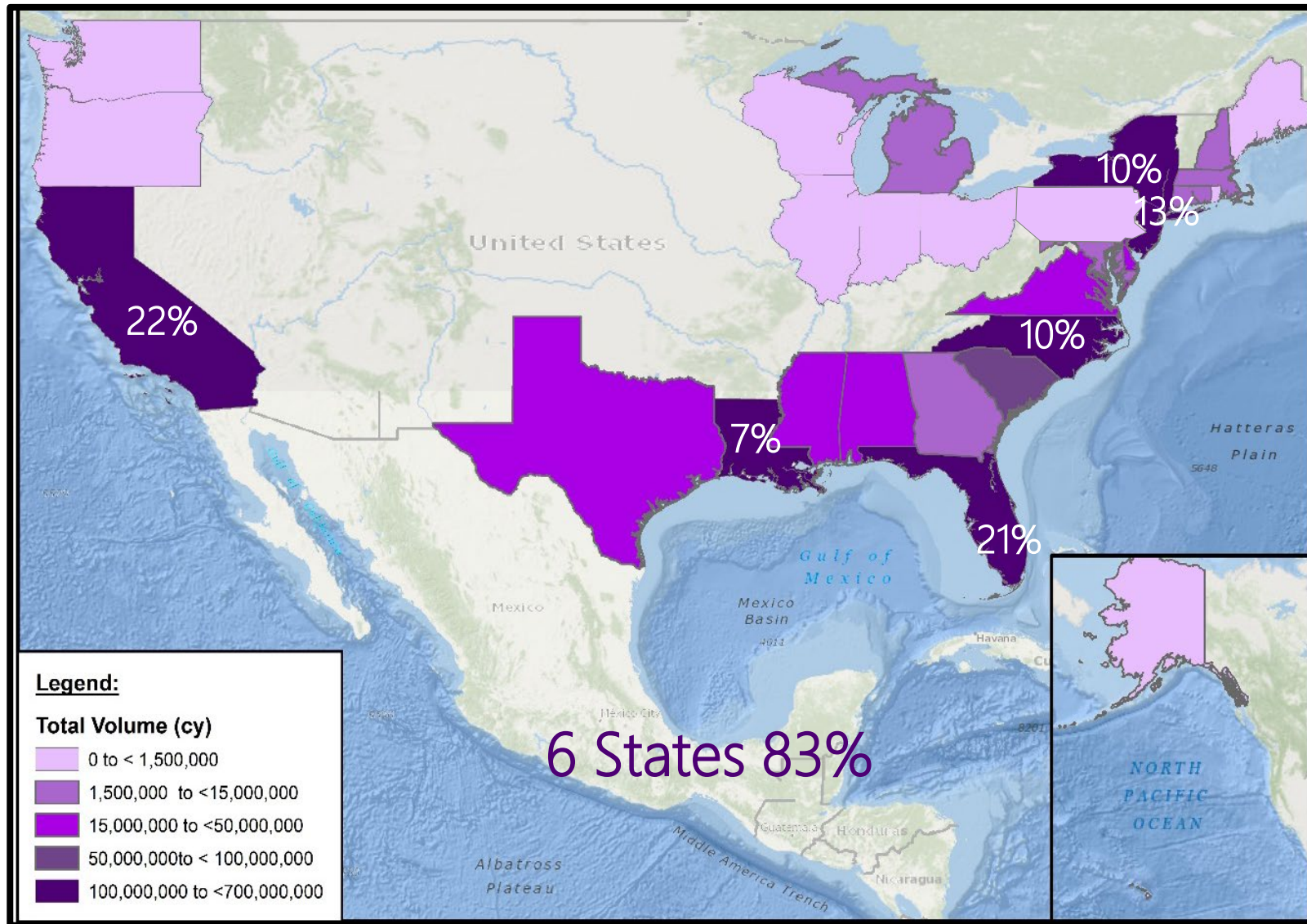


6 States 83%

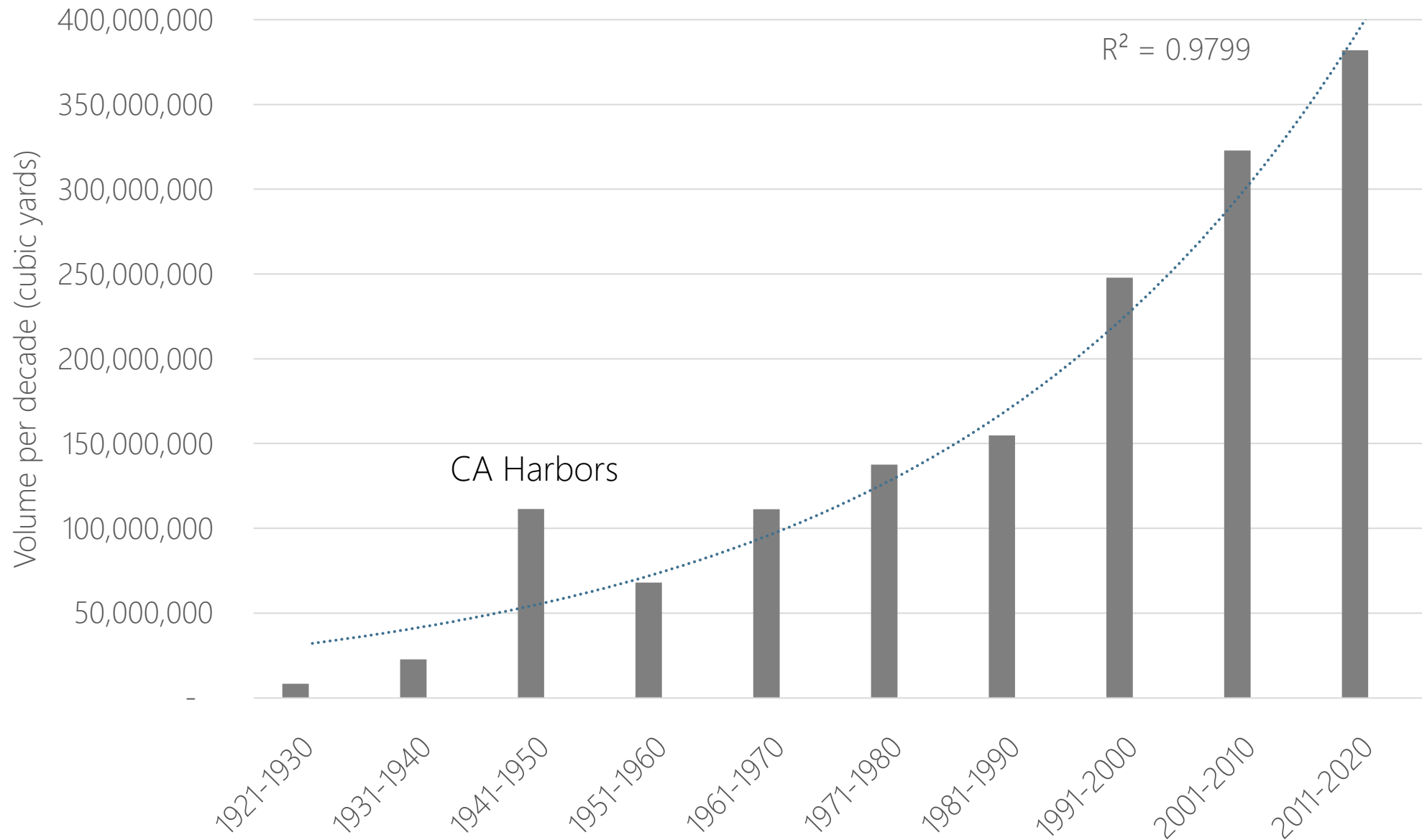


- CA
- FL
- NJ
- NC
- NY
- LA
- SC
- MS
- DE
- VA
- TX
- AL
- GA
- MD
- MI
- MA
- CT
- WA
- NH
- WI
- ME
- IL
- RI
- AK
- HI
- OR
- OH

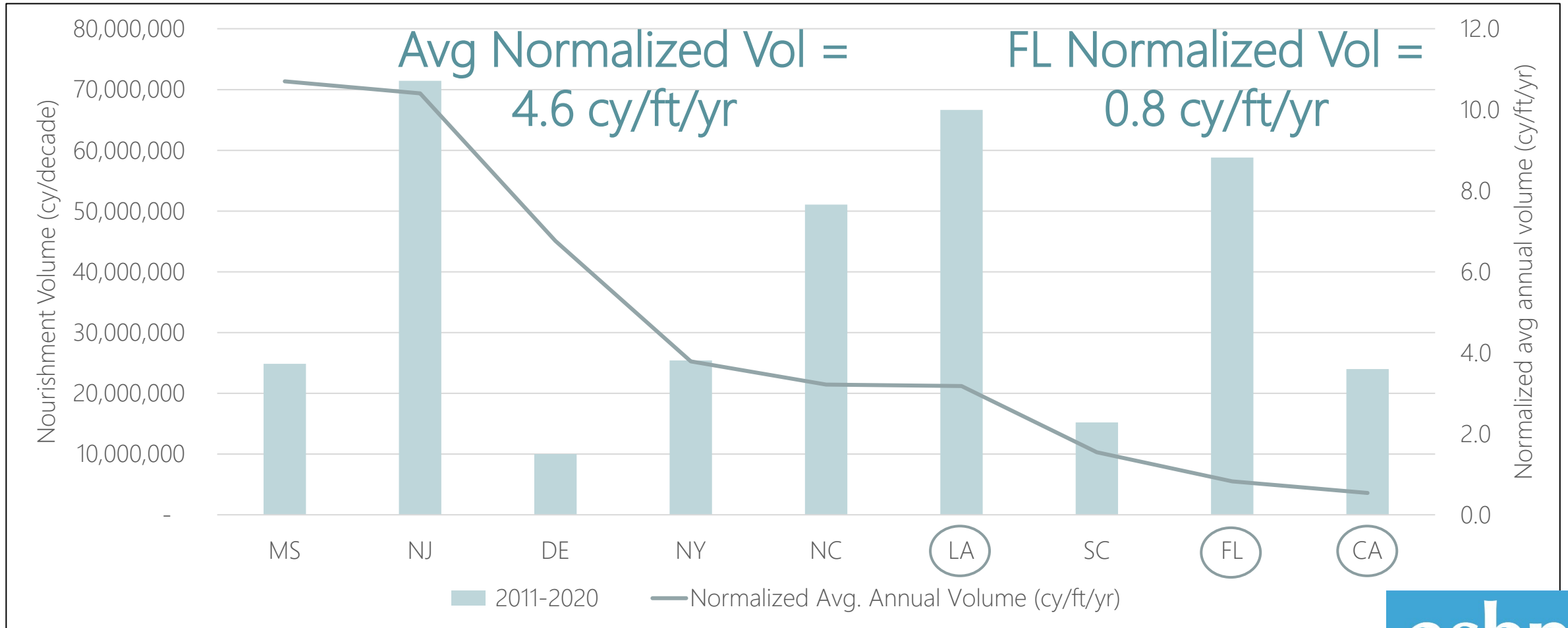
NOURISHMENT VOLUME BY STATE



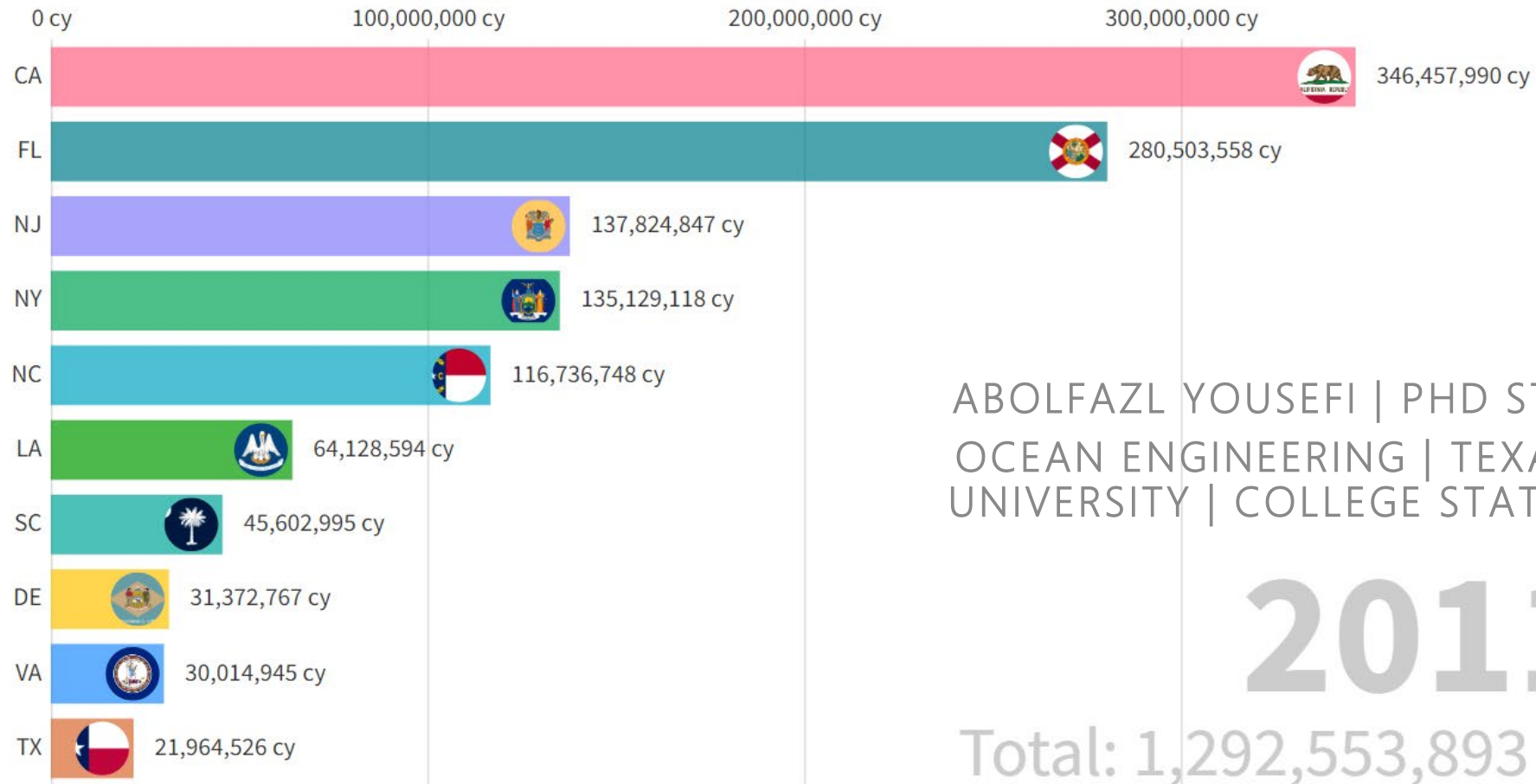
U.S. BEACH NOURISHMENT VOLUME BY DECADE: 1921-2020



VOLUME NORMALIZED BY LENGTH OF SHORELINE: 2011-2020



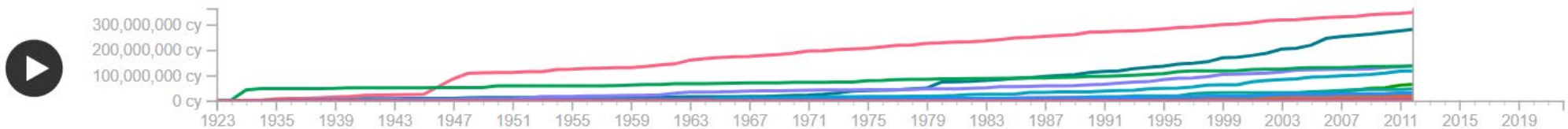
Beach Nourishment Volume by State



ABOLFAZL YOUSEFI | PHD STUDENT
OCEAN ENGINEERING | TEXAS A&M
UNIVERSITY | COLLEGE STATION, TX

2011

Total: 1,292,553,893 cy



DISCUSSION: STATE BEACH MANAGEMENT PROGRAMS

Successful state program characteristics

- Long-term management plans,
- Dedicated funding sources

CALIFORNIA
1940-1950



FLORIDA
2000



LOUISIANA
2010



OCTOBER 1, 2021



TRAINING THE NEXT GENERATION OF COASTAL EXPERTS

The U.S. Coastal Research Program (USCRP) is a multi-agency led effort to coordinate federal activities, strengthen academic programs, and address coastal community needs



Meeting Research and Education Needs in Coastal Engineering

“USACE and other federal agencies should establish a substantial program to fund applied research in academic coastal engineering and science programs and promote partnerships between academia, federal agencies, and private interests.”

The state of U.S. coastal engineering & science

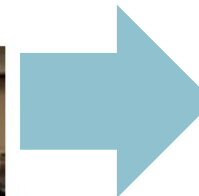
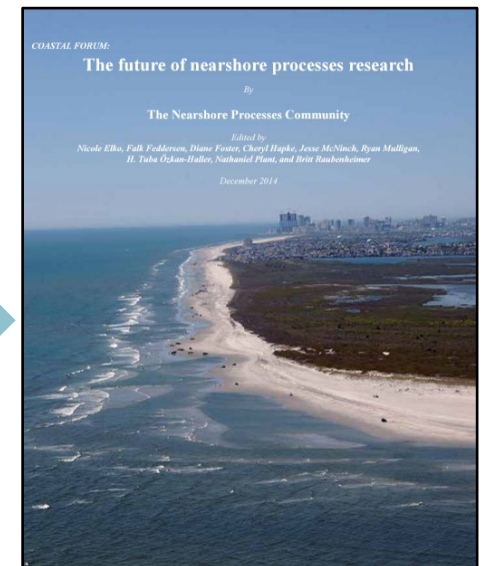
Science and Technology Committee
American Shore & Beach Preservation Association
February 2012



The Past & Future of Nearshore Processes Research, Kitty Hawk, NC, May 2014



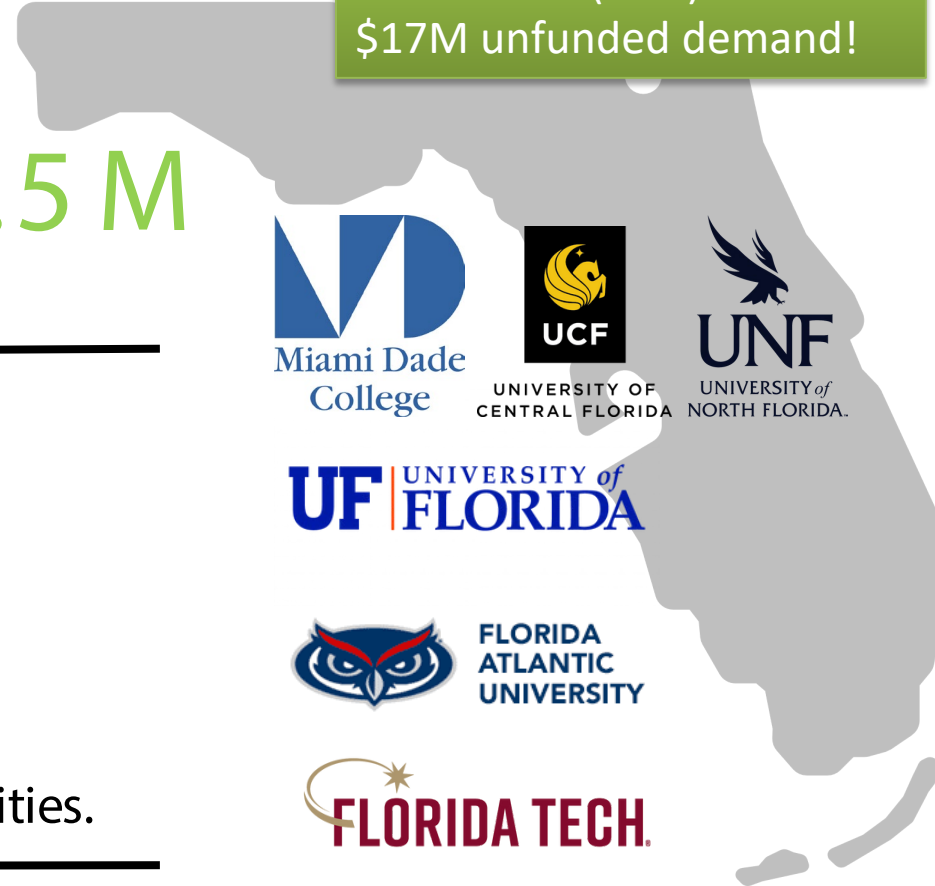
2014: Future of Nearshore Processes Report





FUNDING 2016-2023 FLORIDA

Add'l 62 proposals from FL universities (13%)
\$17M unfunded demand!



77 USCRP research proposals funded across **27** states: **\$22.5 M**

14% of all awarded funding spent in FL: **\$ 3.2 M**

8 awards to FL academic institutions & PIs: **\$2.2 M**

5 awards to non-FL PIs performing research in FL: **\$1 M**

19 academic team members

29 FL-based students supported across **6** FL universities.

8 FL-based stakeholders involved in these projects

OUR PARTNERS



CONNECT WITH USCRP





PLANS FOR 2024



2024 USCRP Decadal Visioning Workshop

The Future of Coastal Processes Research

June 11-13, 2024
St. Petersburg, Florida



#coastswweek2024

Coastal Summit

March 26-28, 2024

Washington, DC



asbpa

American Shore & Beach Preservation Association

Advocating for healthy coastlines

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