



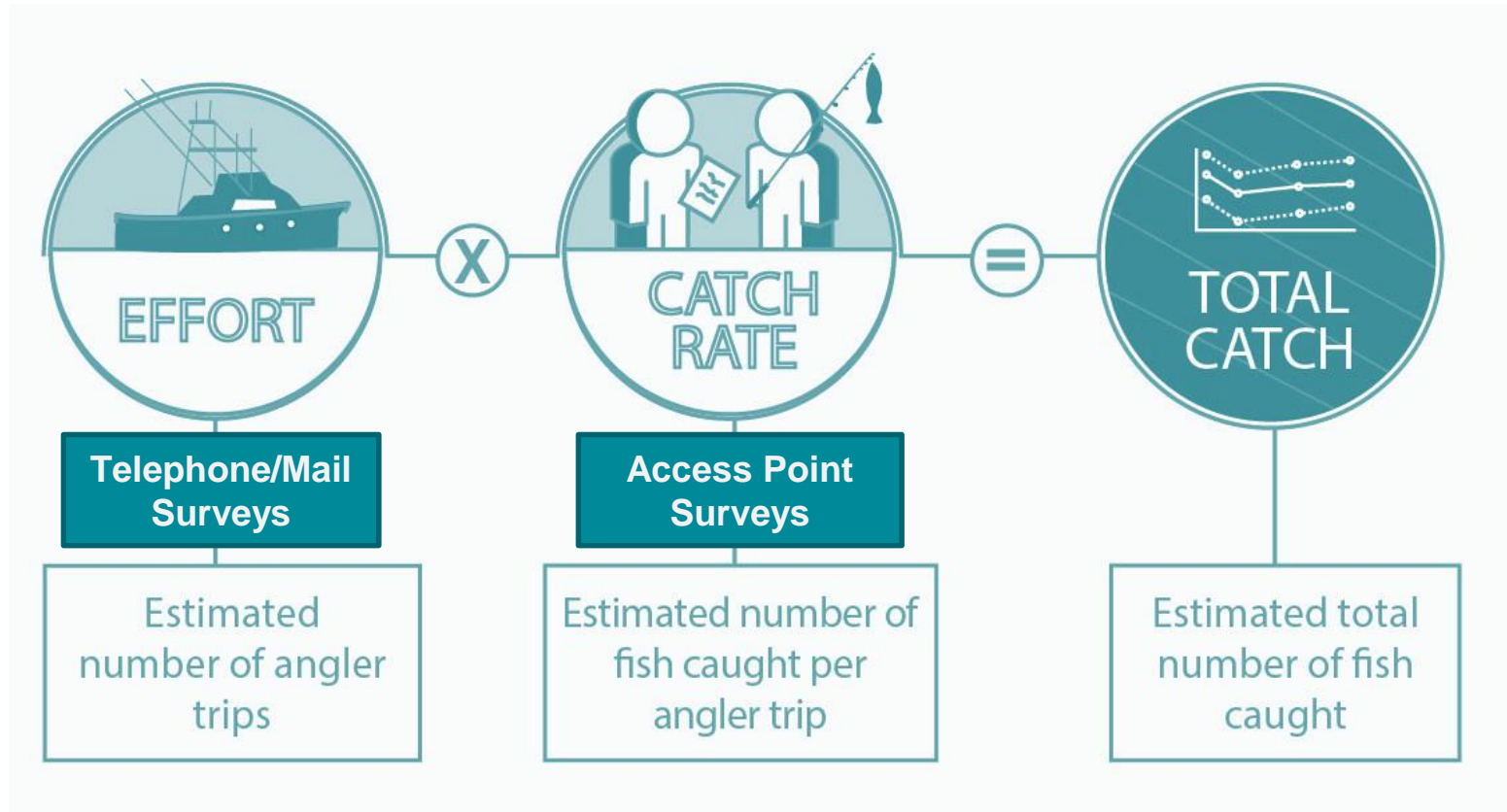
NOAA
FISHERIES

Marine Recreational Information Program

Transition to Improved Survey Designs

John Foster
Kelly Denit

Estimating Total Recreational Catch



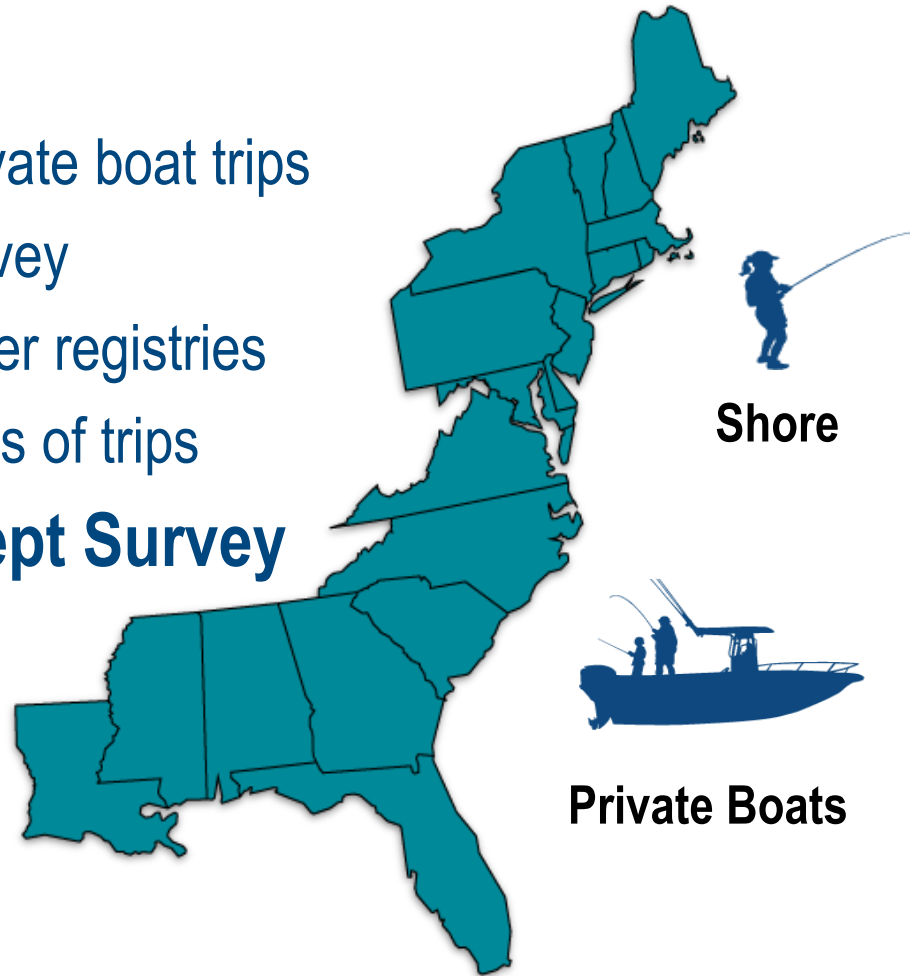
Improved Survey Designs

Fishing Effort Survey

- New mail survey of shore & private boat trips
- Replaces legacy telephone survey
- Uses USPS database and angler registries
- Higher, more accurate estimates of trips

Access Point Angler Intercept Survey

- New design for sampling catch
- Better time-of-day coverage
- More statistically sound



Fishing Effort Survey



We're reaching more anglers.



Surveys get into the right hands.

3X

Much higher response rate.



Improved questionnaire.

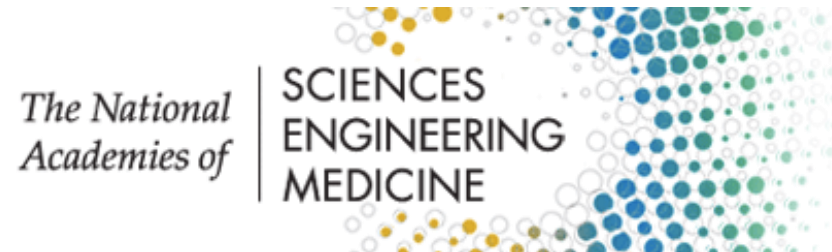


More complete answers.

Extensive Testing and Peer Review

“The [Fishing Effort Survey] methodologies, including the address-based sampling survey design, are **major improvements.**”

“The current methods used in the APAIS ... are a vast improvement over the previous sampling and estimation procedures and reflect **state of the art methods** in survey sampling.”



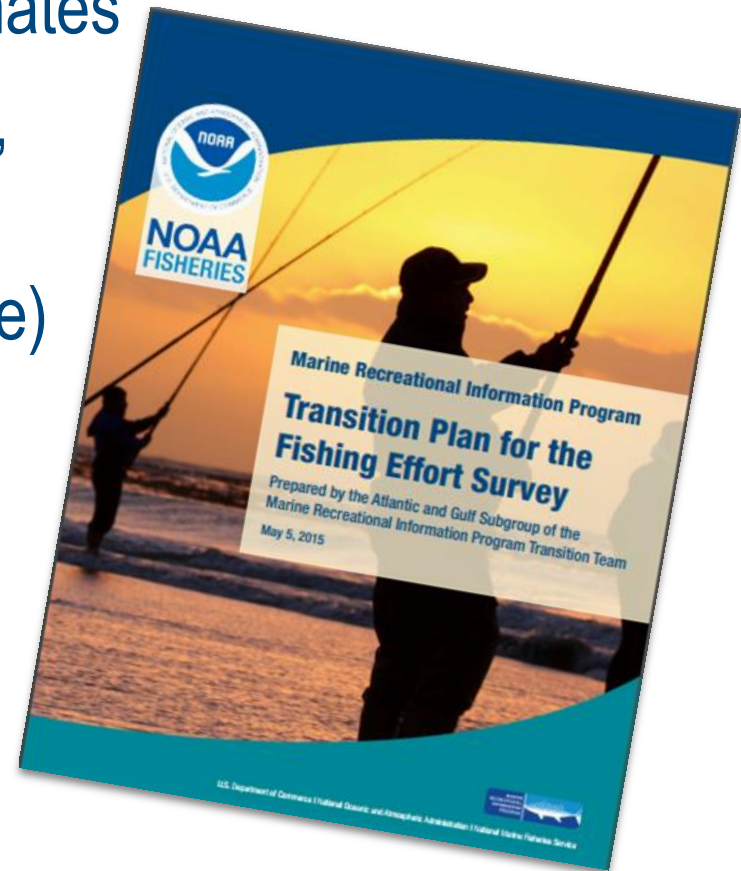
Transition Plan

Improving designs can change estimates

Transition Plan developed by NOAA, states, councils, and commissions.

- ✓ Benchmarking (mail vs. phone)
- ✓ Calibration (old vs. new)
- ✓ Convert “old” estimates into “new” currency

Stock assessments
Management decisions



MRIP Calibration Models

Fishing Effort Survey

- Fay-Herriot small area estimation model.
- Developed with independent consultants at Colorado State University.

Access Point Angler Intercept Survey

- Sample weight adjustment method.
- Developed with independent consultants at Colorado State University.

MRIP Calibration Model Peer Reviews

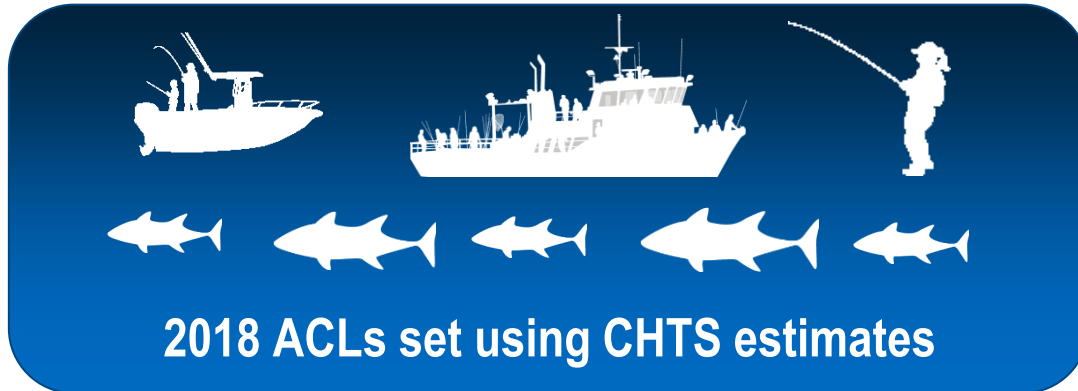
Fishing Effort Survey

- June 27-29, 2017 workshop in Silver Spring, MD.
- Reviewers unanimously endorsed the proposed FES/CHTS calibration model.

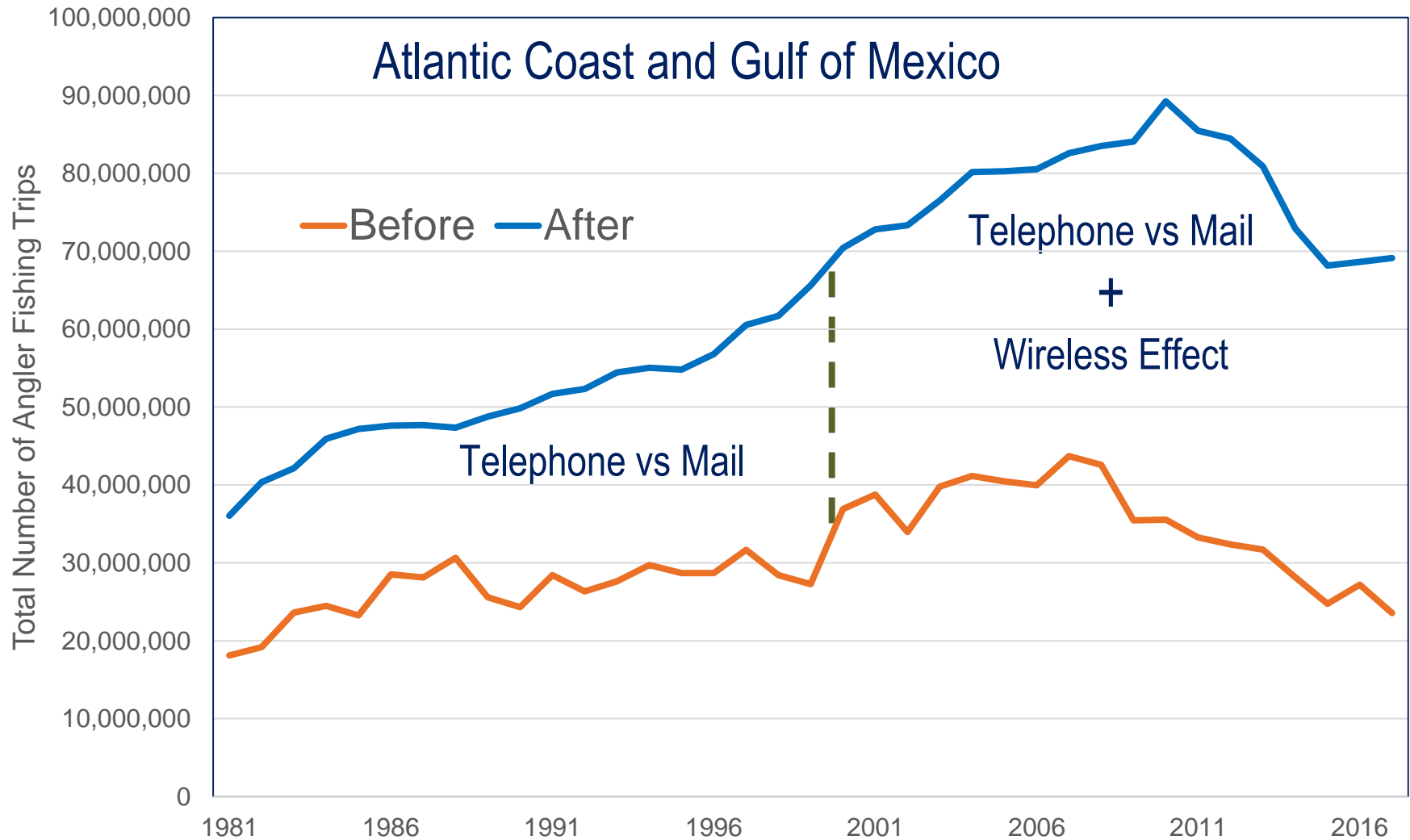
Access Point Angler Intercept Survey

- March 20-22, 2018 workshop in Silver Spring, MD.
- Reviews endorsed the proposed approach

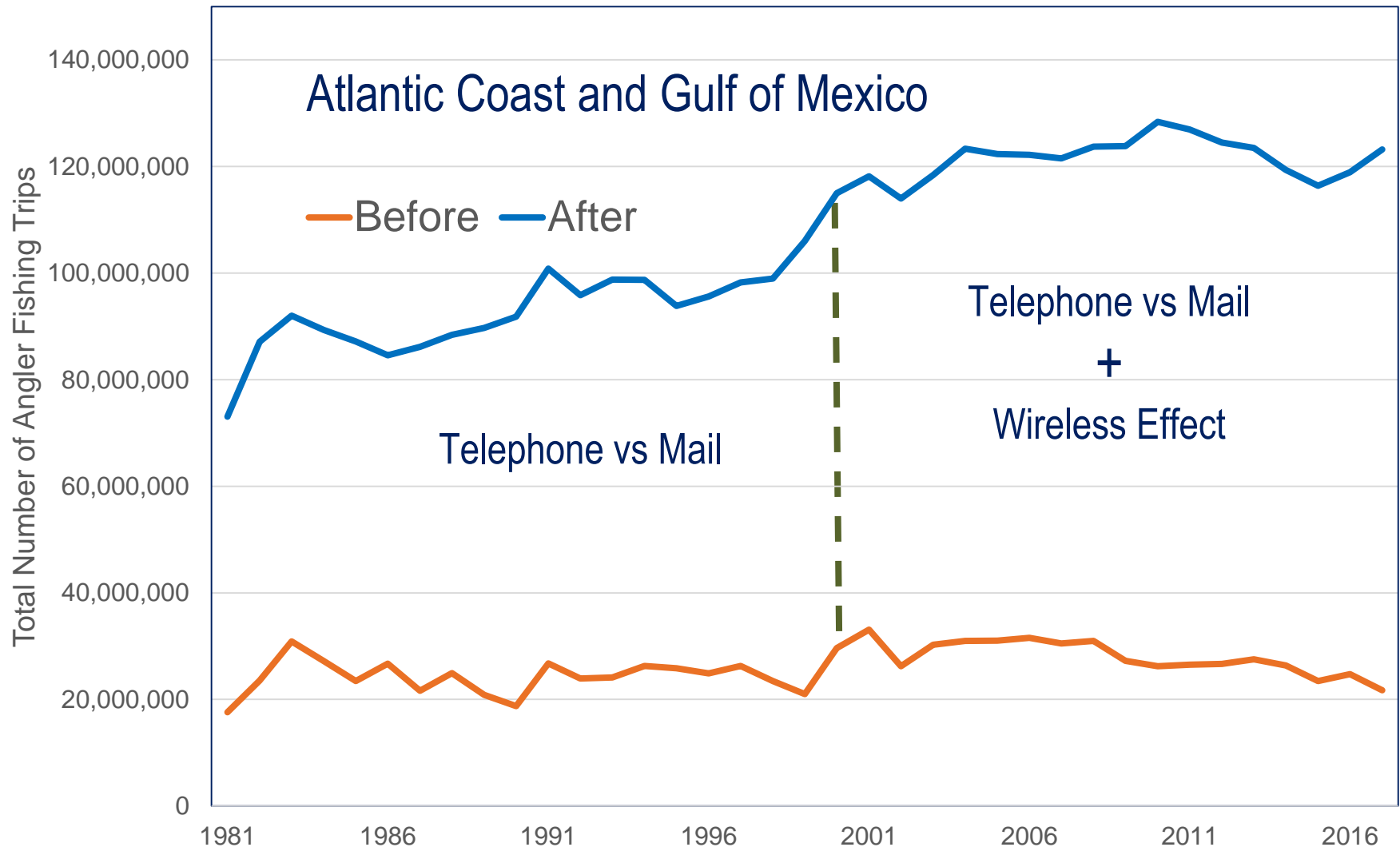
2018 Annual Catch Limits



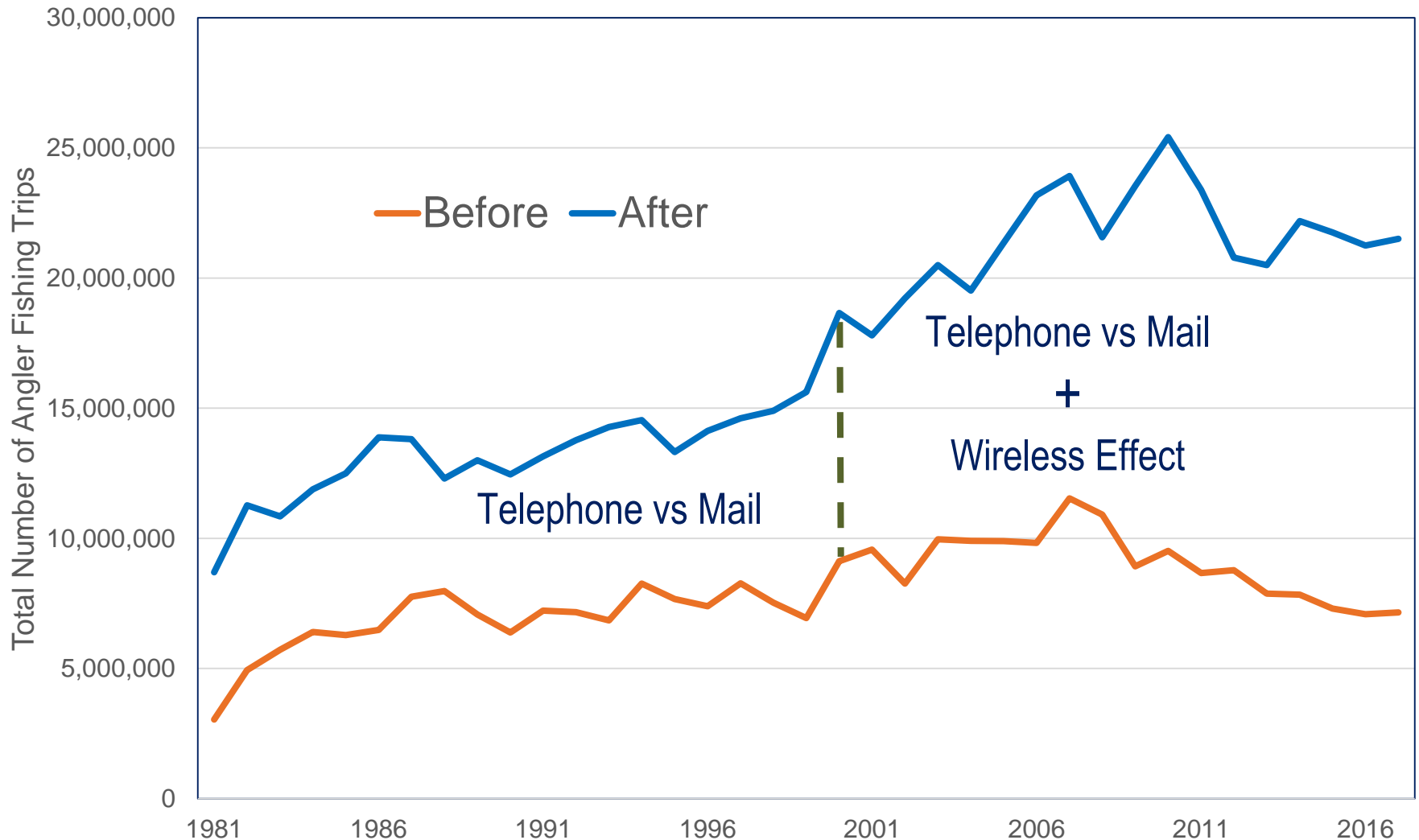
Private Boat Effort



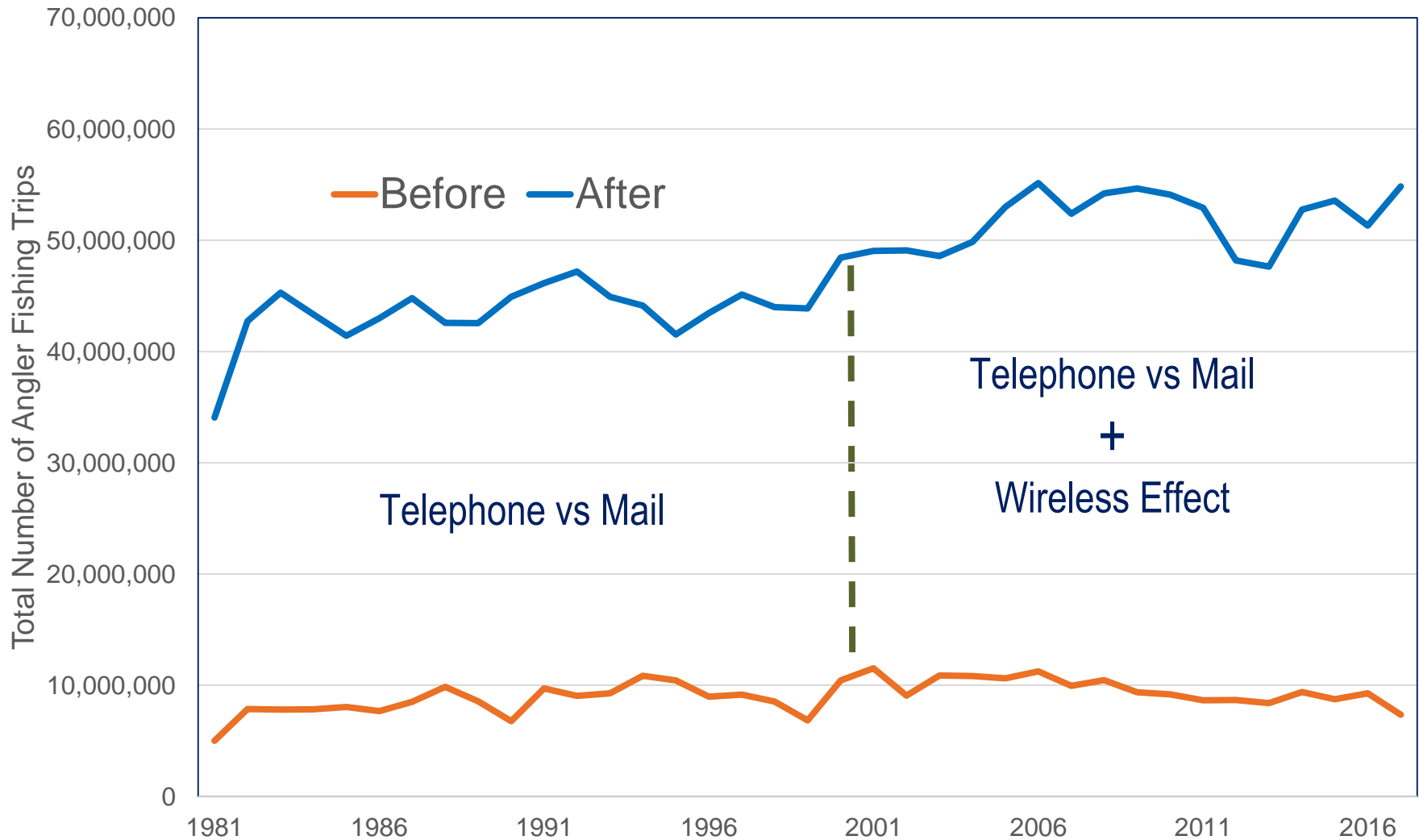
Shore Effort



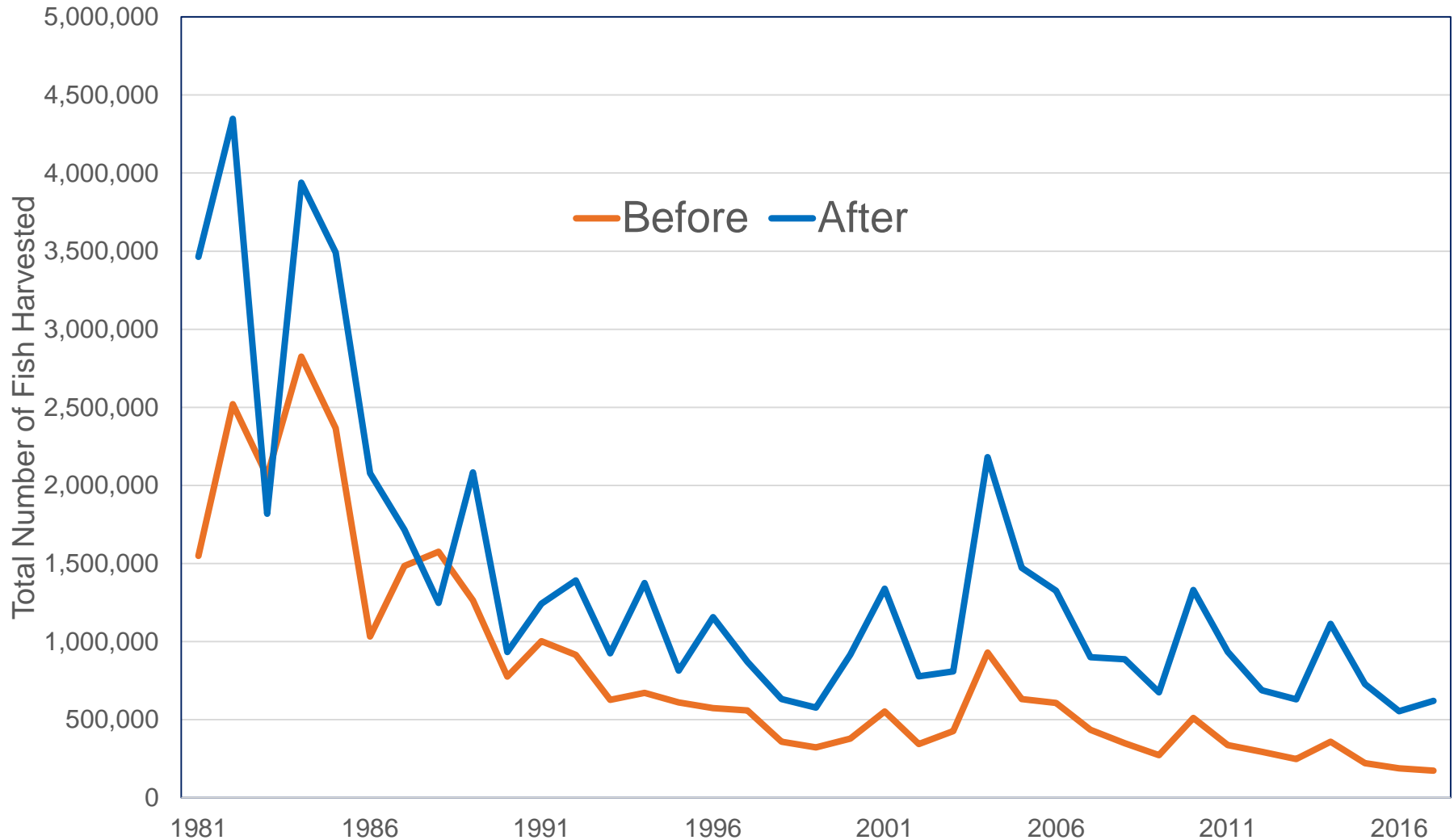
South Atlantic Private Boat Effort



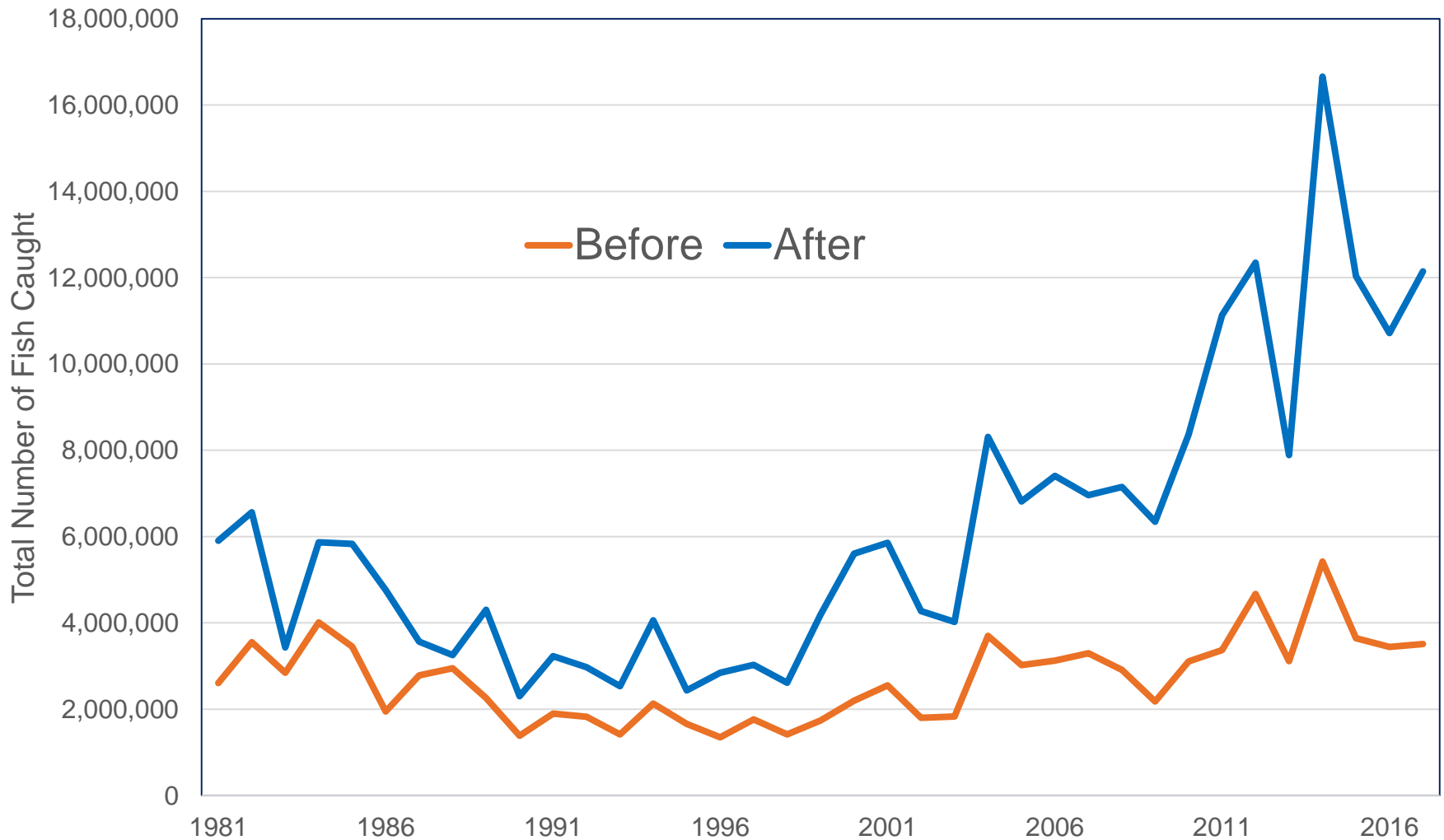
South Atlantic Shore Effort



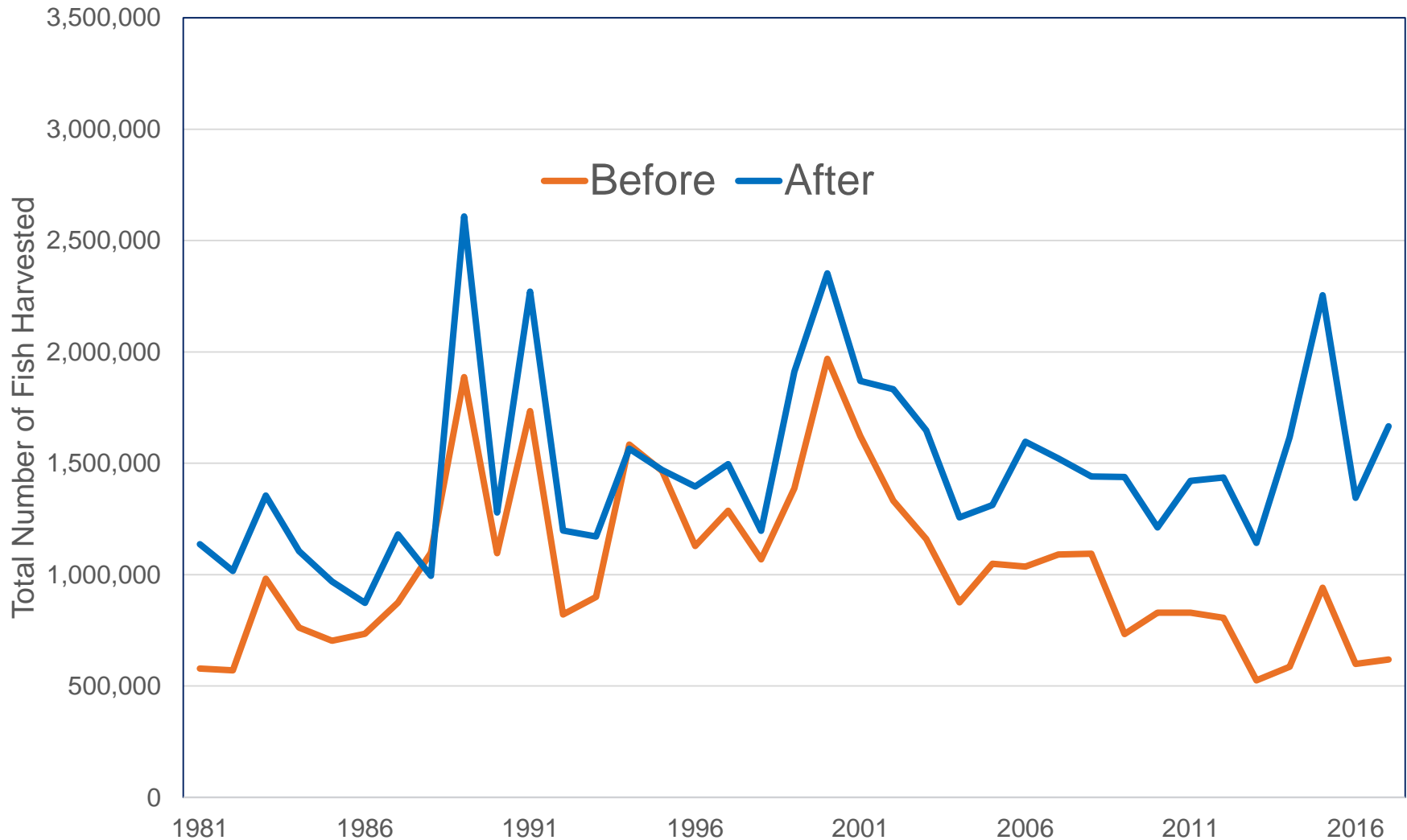
Black Sea Bass Harvest



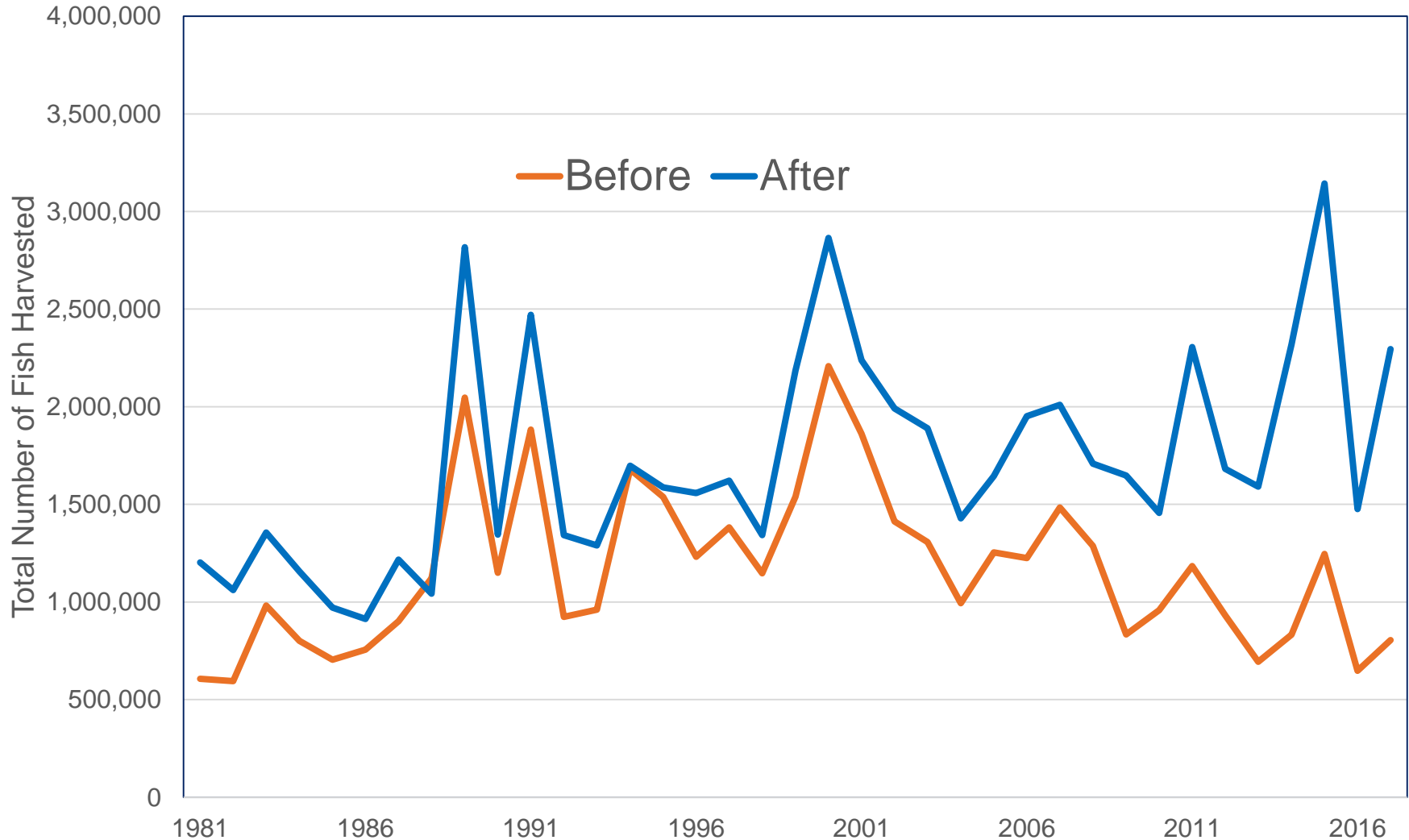
Black Sea Bass Total Catch



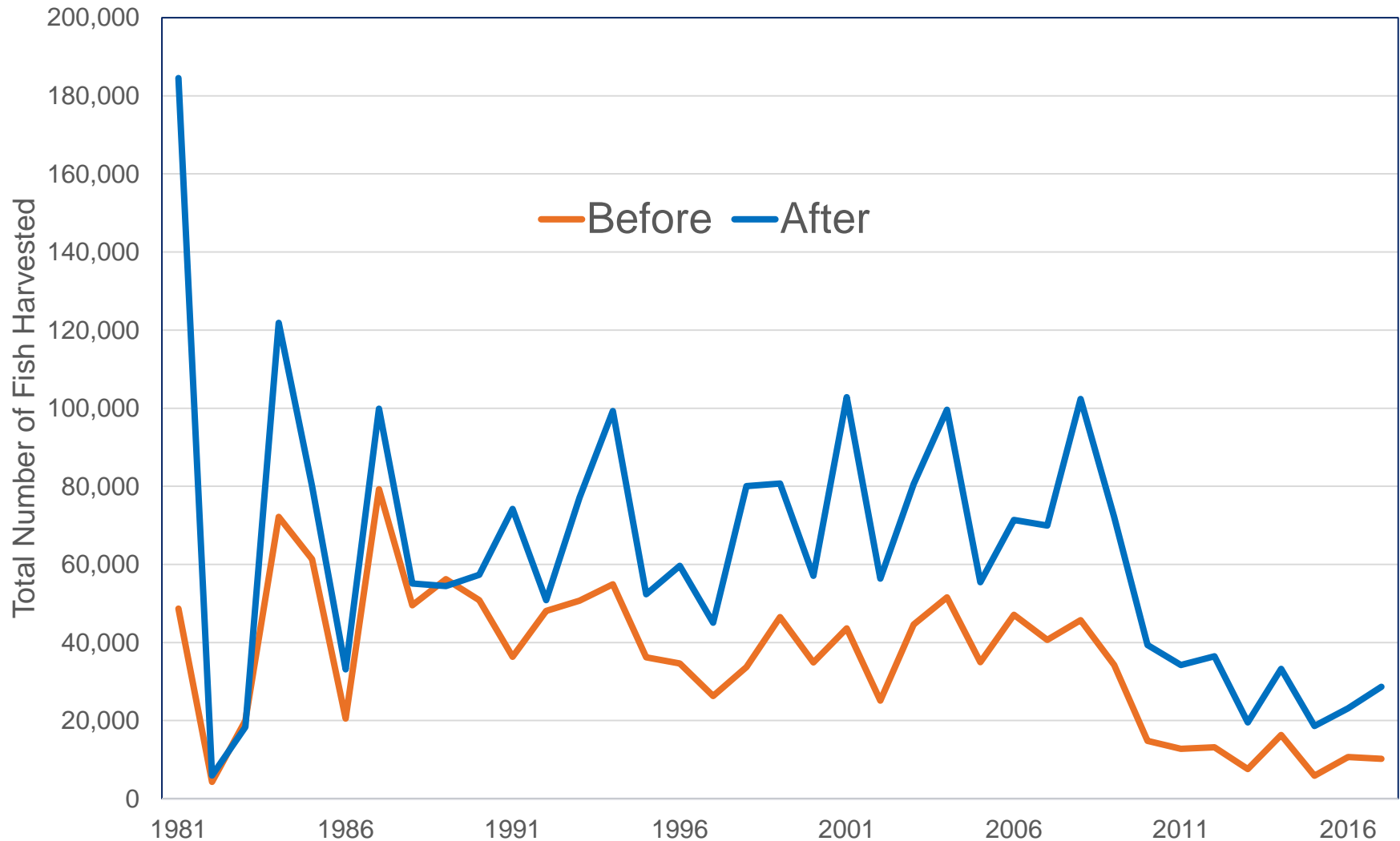
Dolphin Harvest



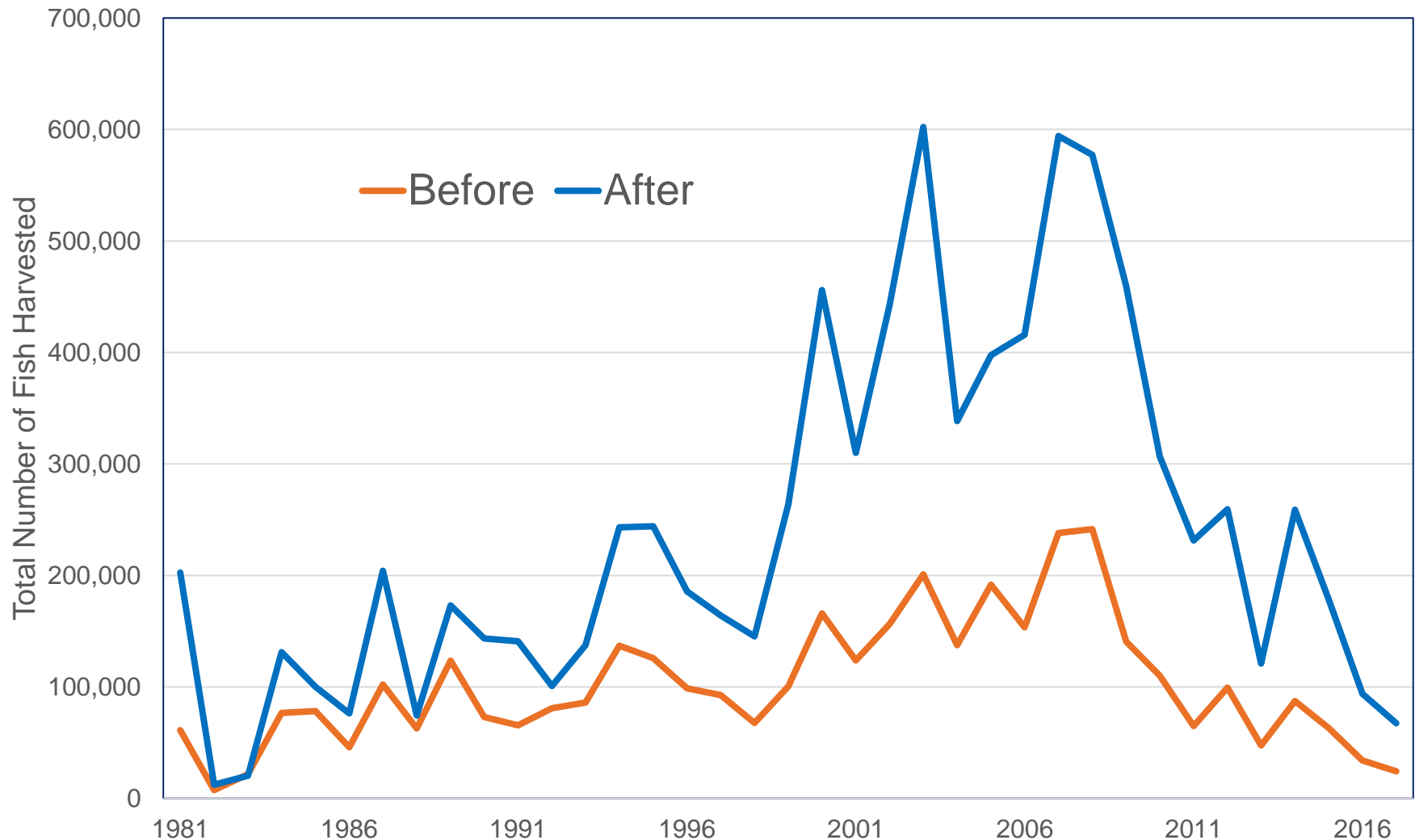
Dolphin Total Catch



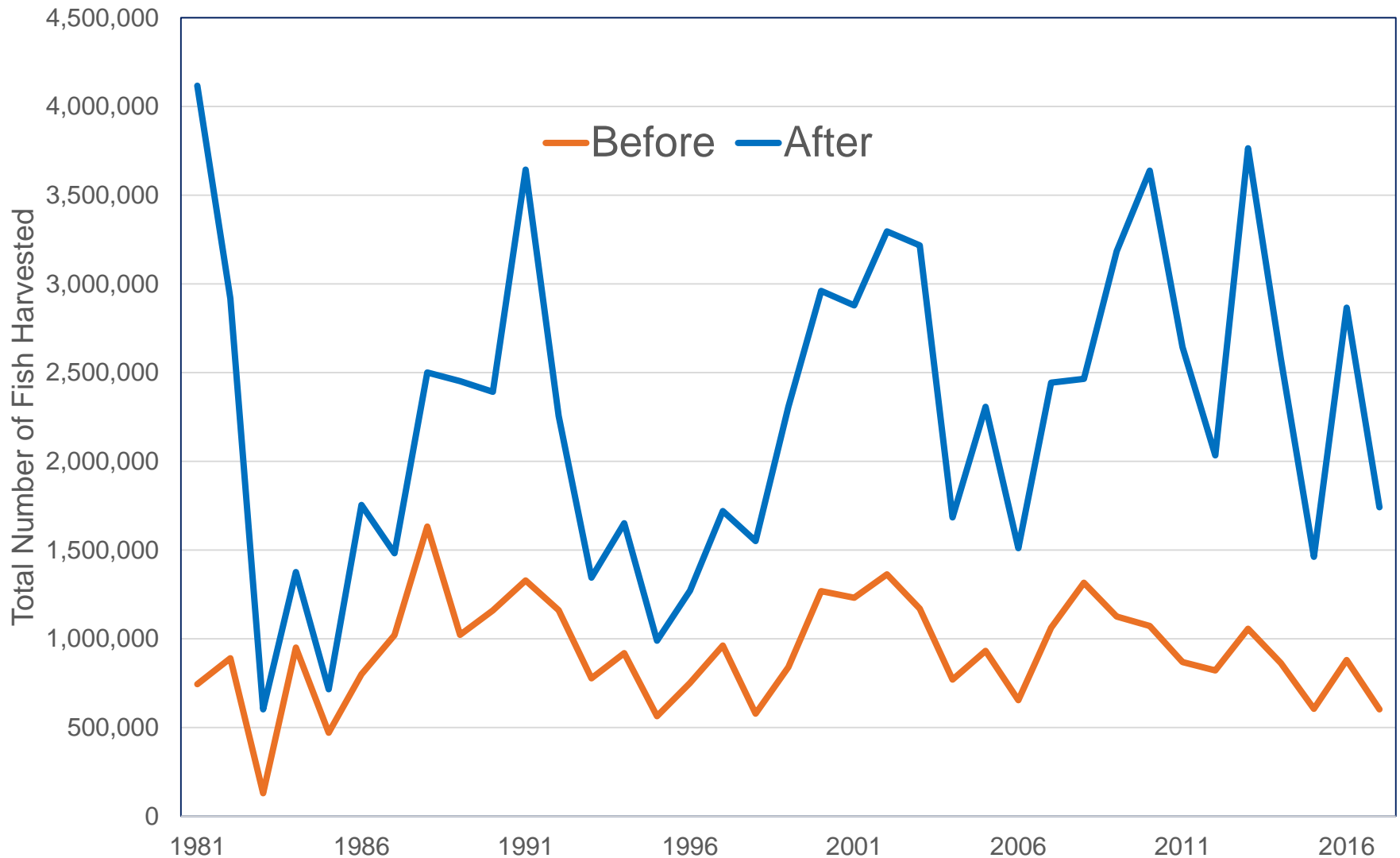
Gag Harvest



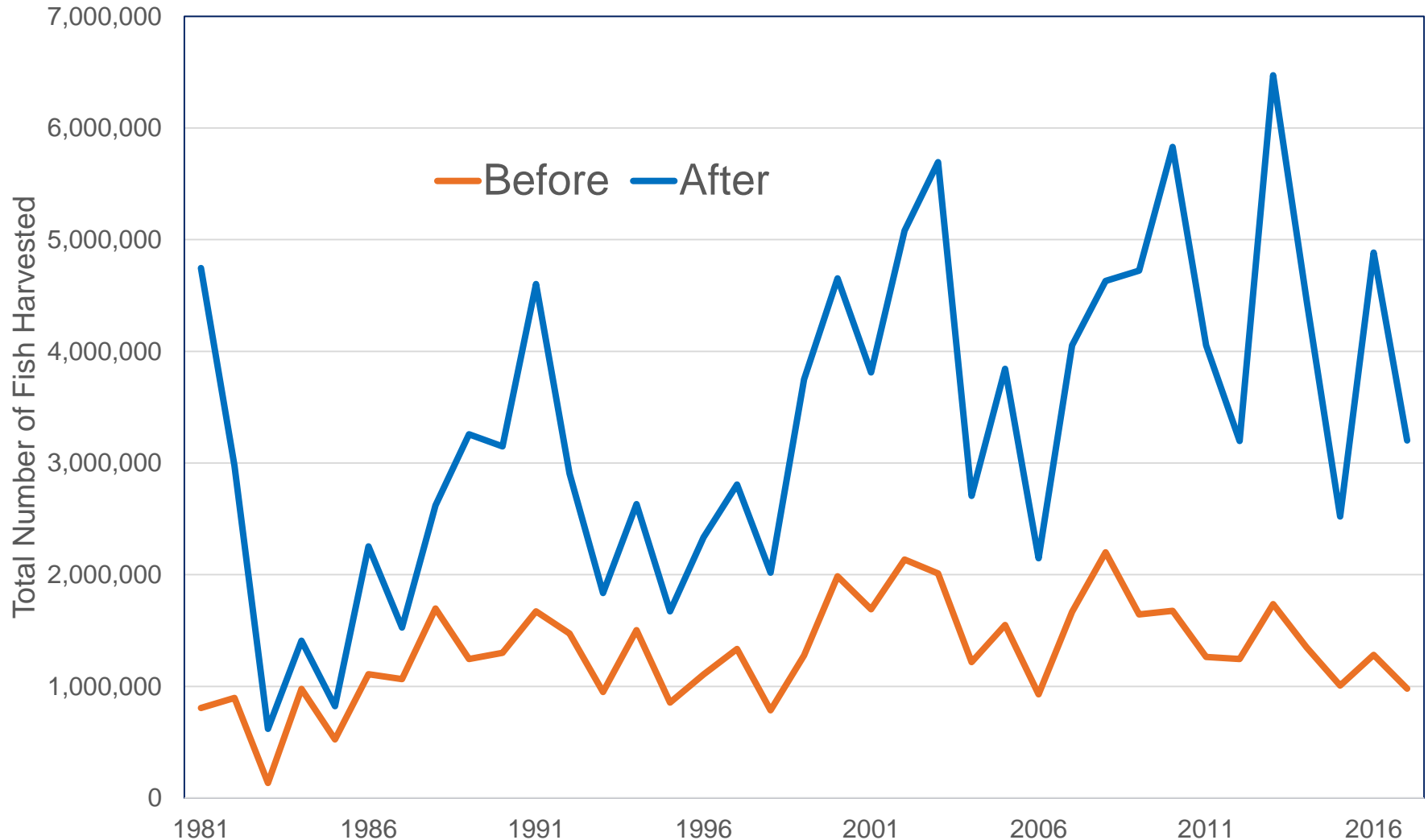
Gag Total Catch



Spanish Mackerel Harvest



Spanish Mackerel Total Catch



Impacts on Recreational Fishing



Key Takeaways

- We see a substantial increase in effort, especially in the shore mode.
- Those stocks that have high proportion of catch from shore are more heavily impacted.
- The changes in effort are generally larger in more recent years, mostly driven by the “wireless” effect.
- 2018 catch will be back-calibrated to ensure ACLs and catch are in the same “currency.”
- Stock assessments incorporating this new data will be used to determine stock status and ACLs.





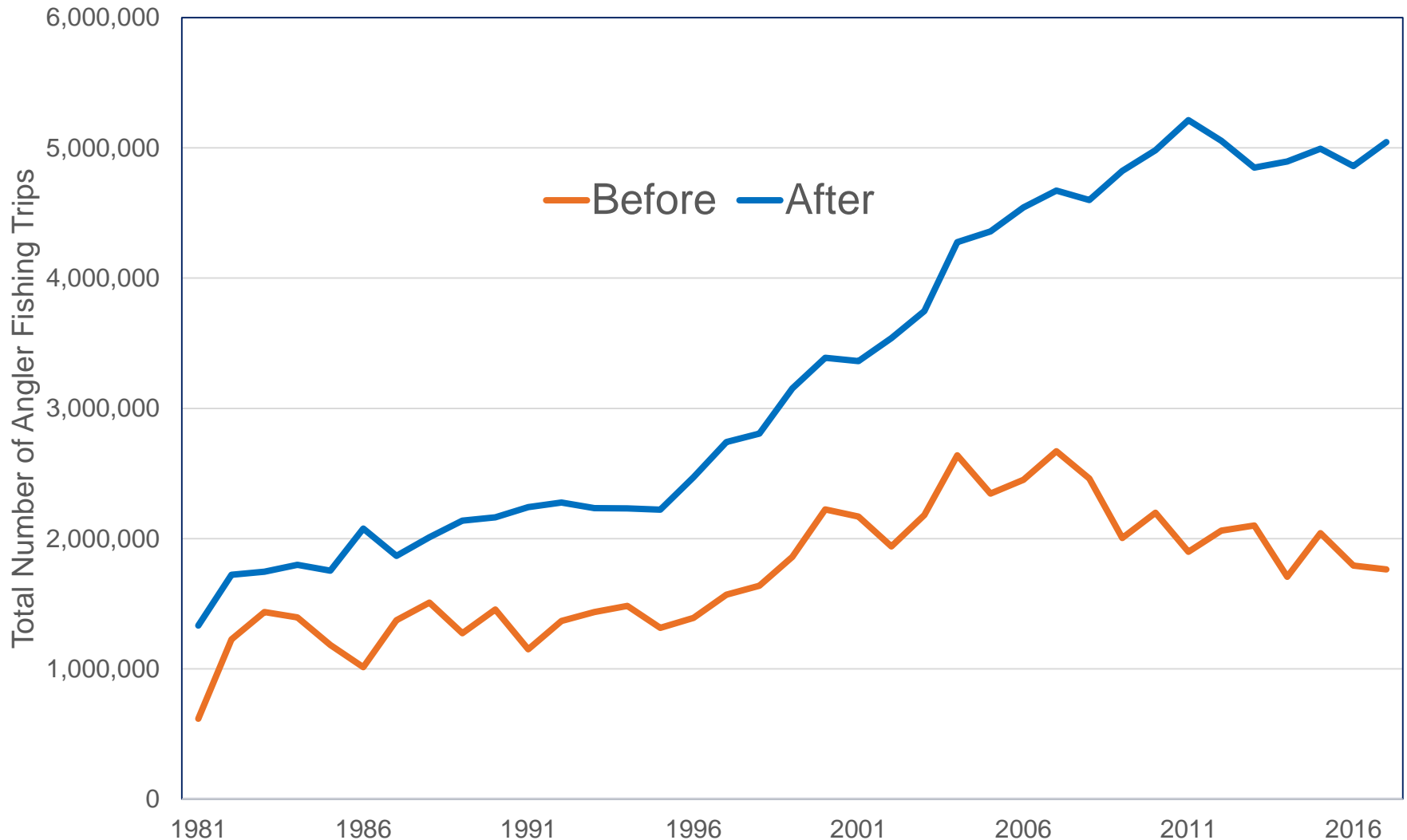
**NOAA
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Questions?

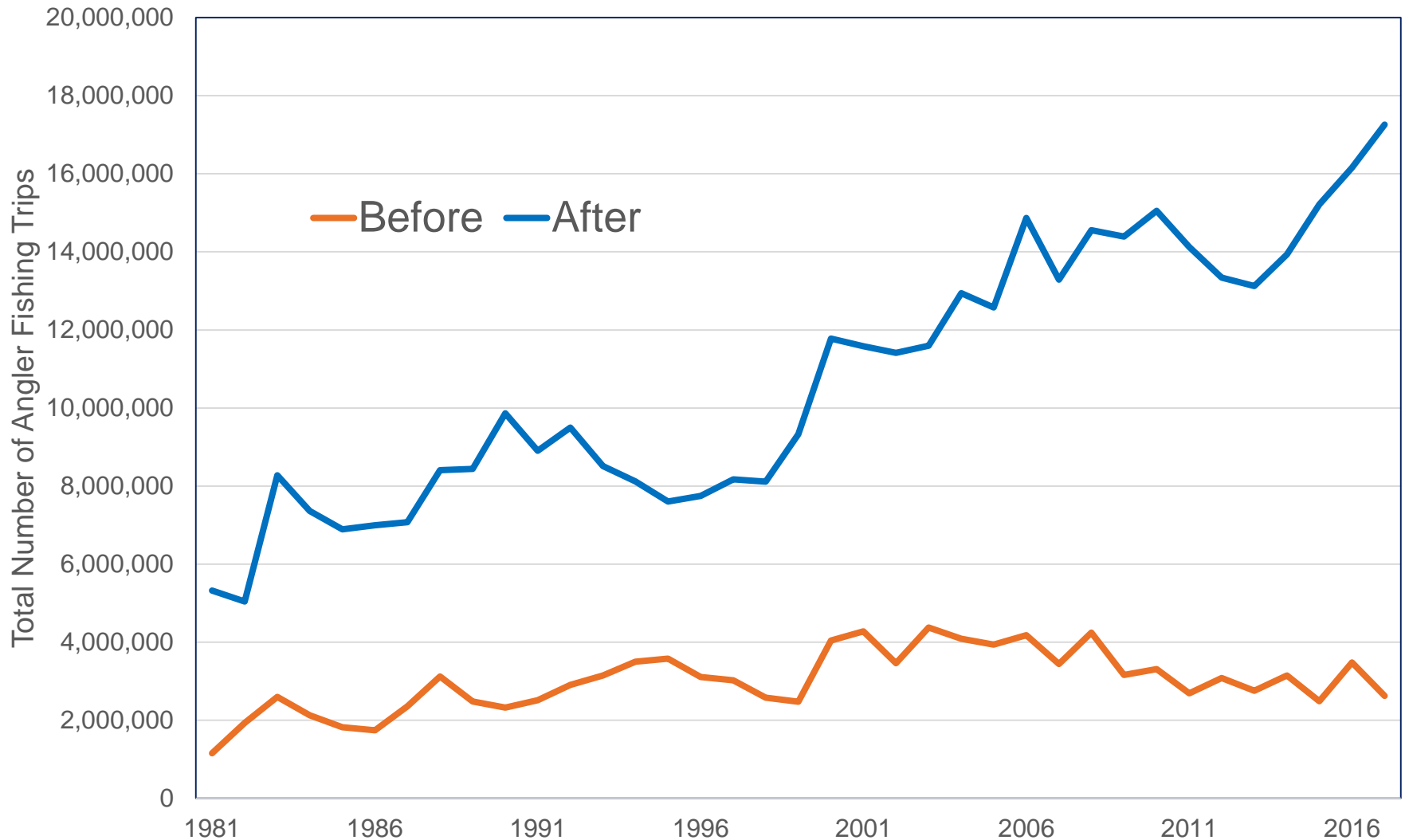


NOAA FISHERIES

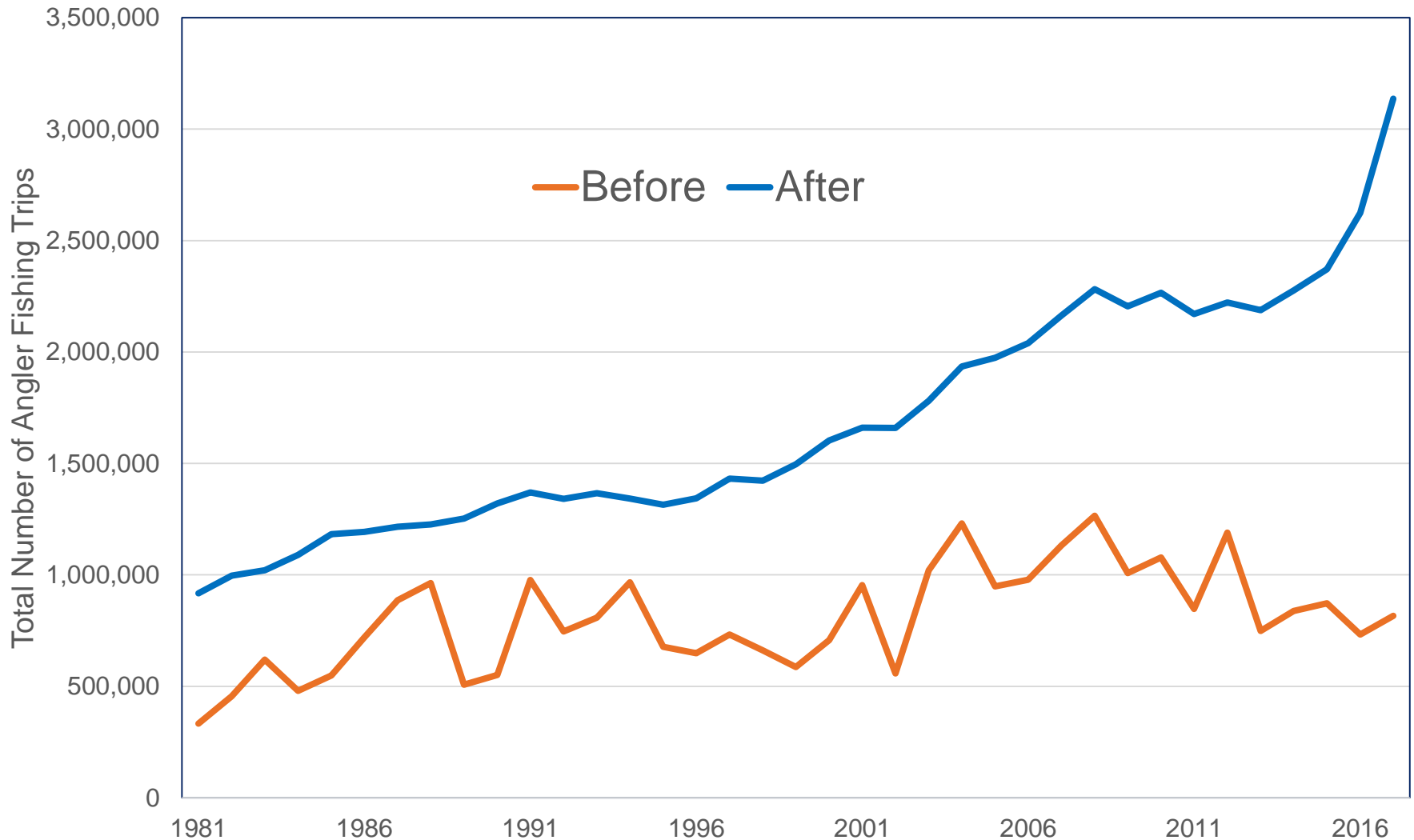
North Carolina Private Boat Effort



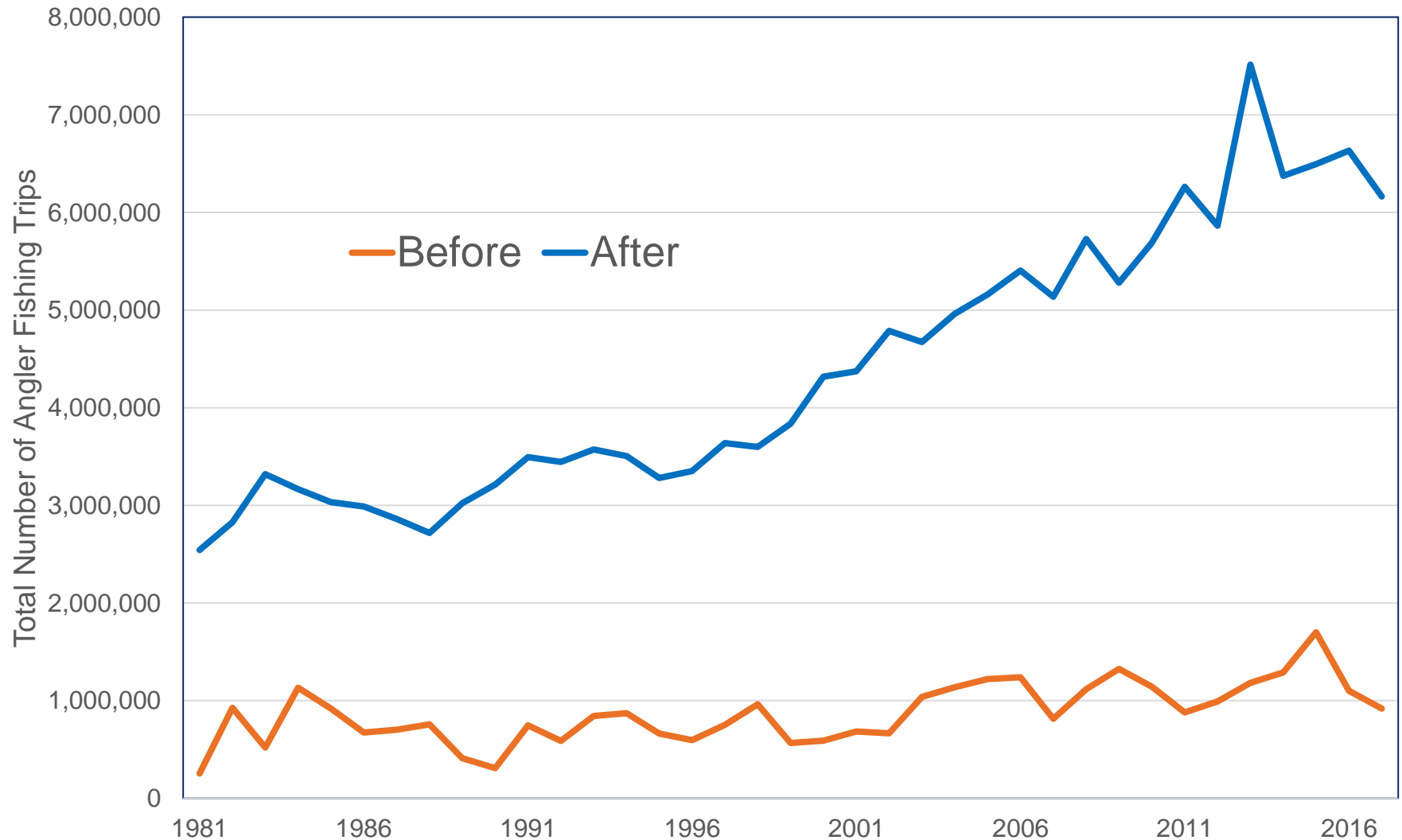
North Carolina Shore Effort



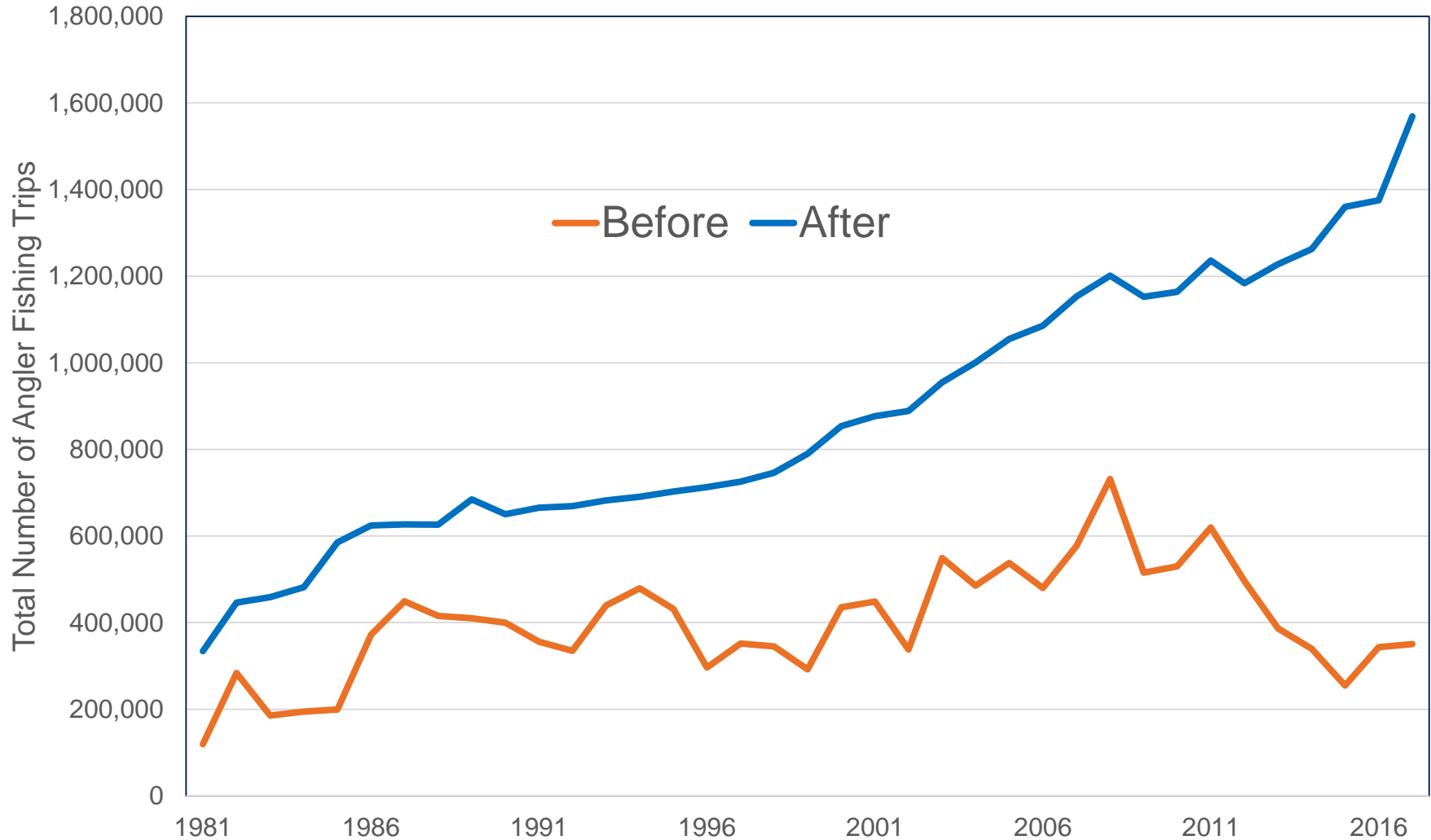
South Carolina Private Boat Effort



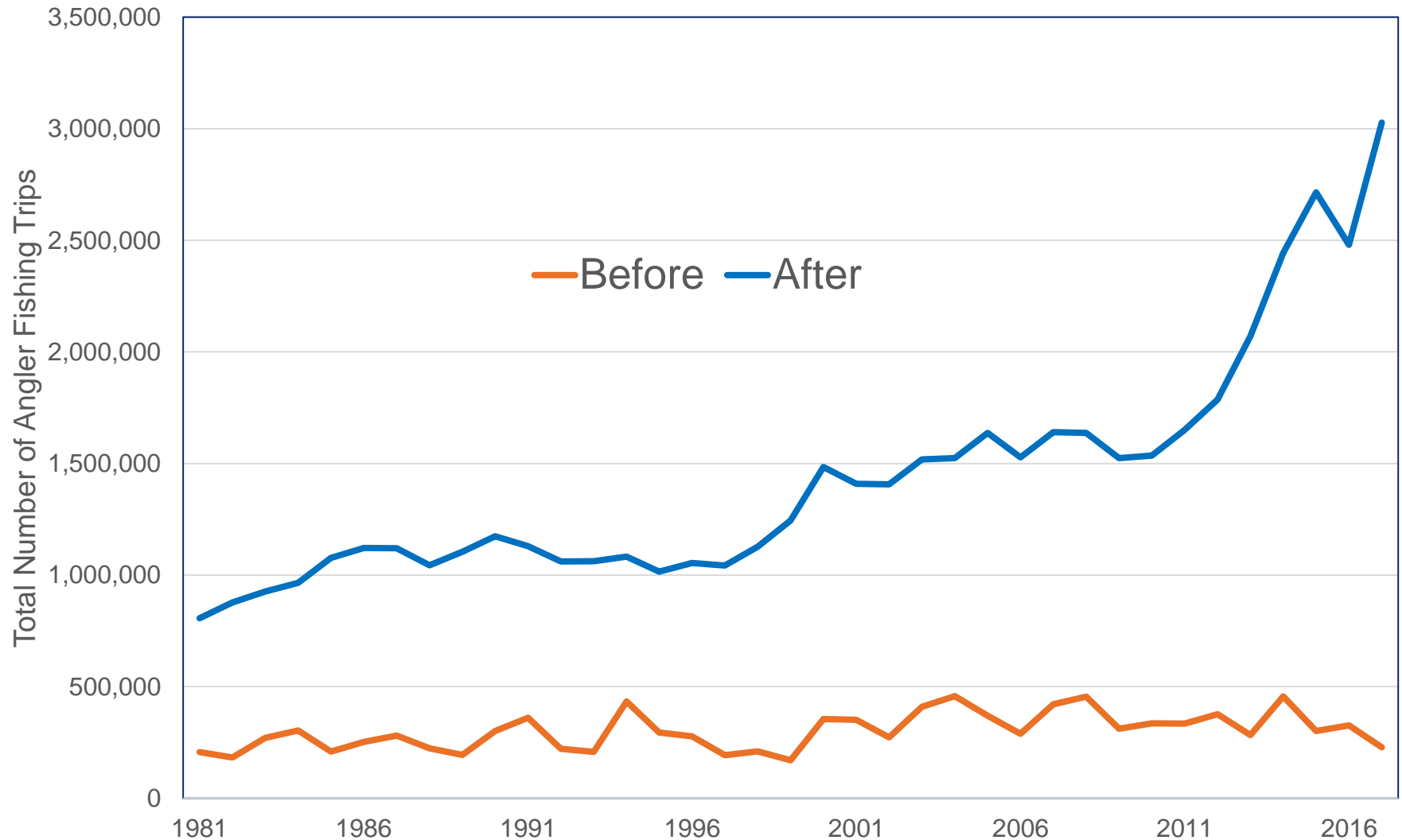
South Carolina Shore Effort



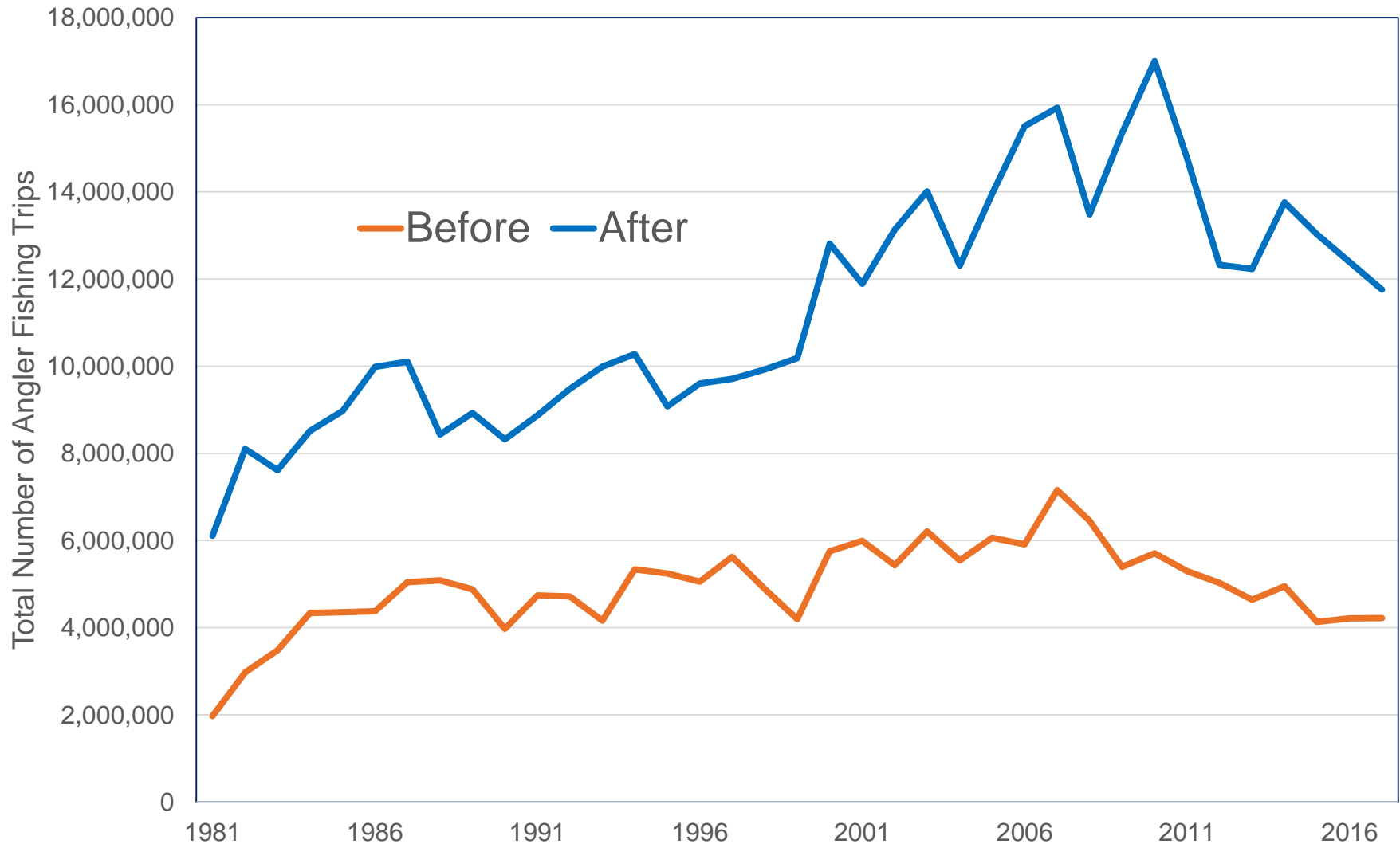
Georgia Private Boat Effort



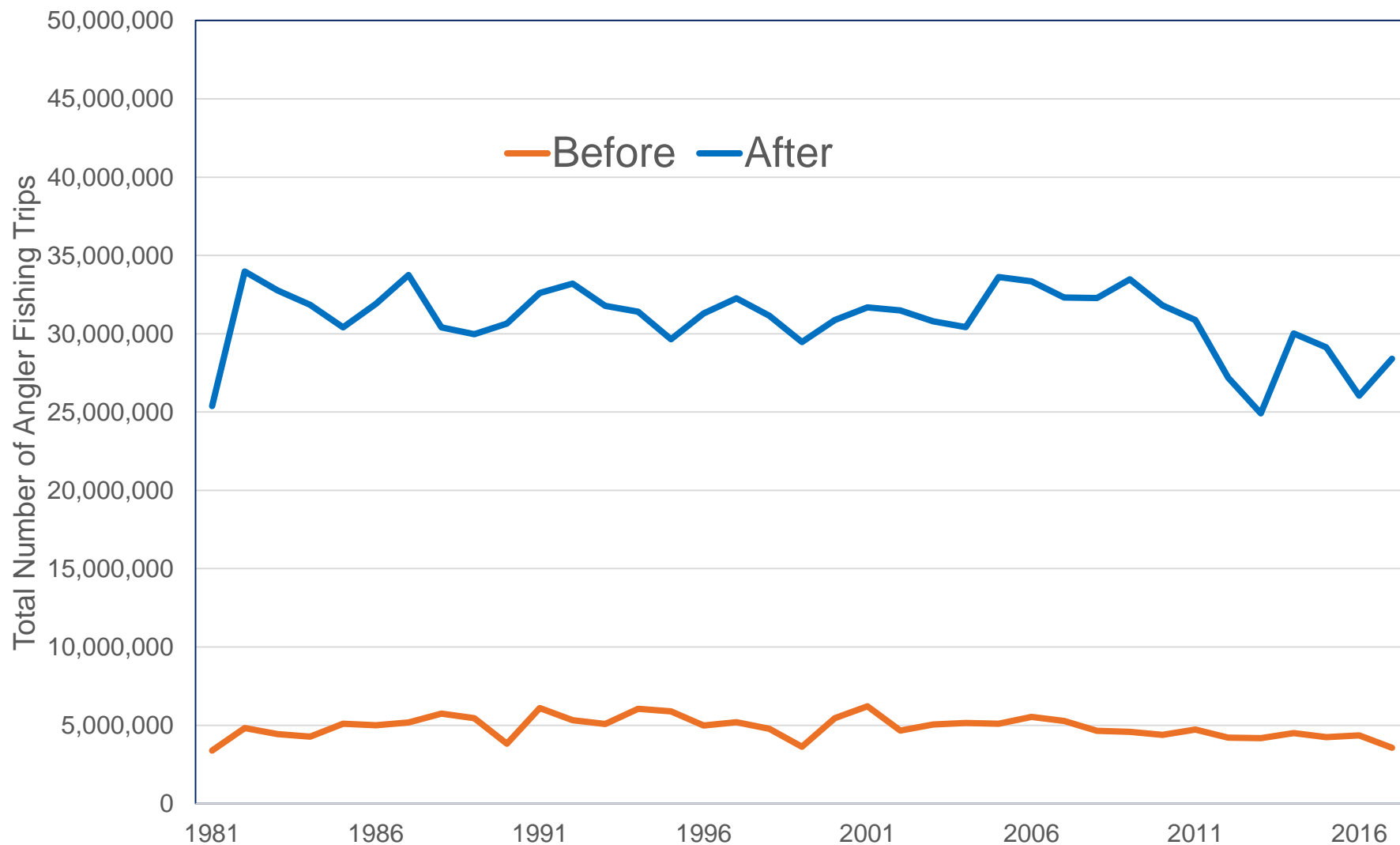
Georgia Shore Effort



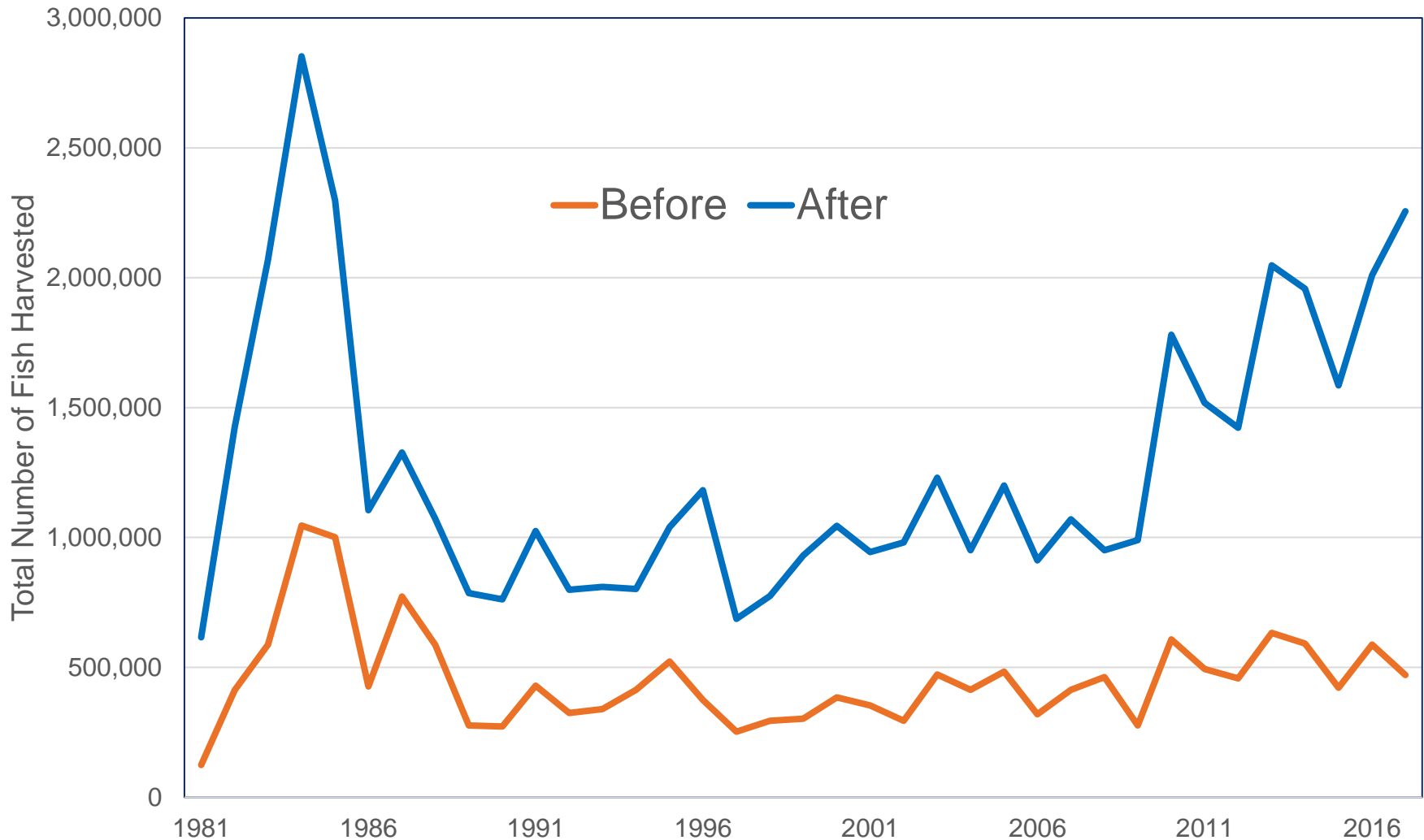
East Florida Private Boat Effort



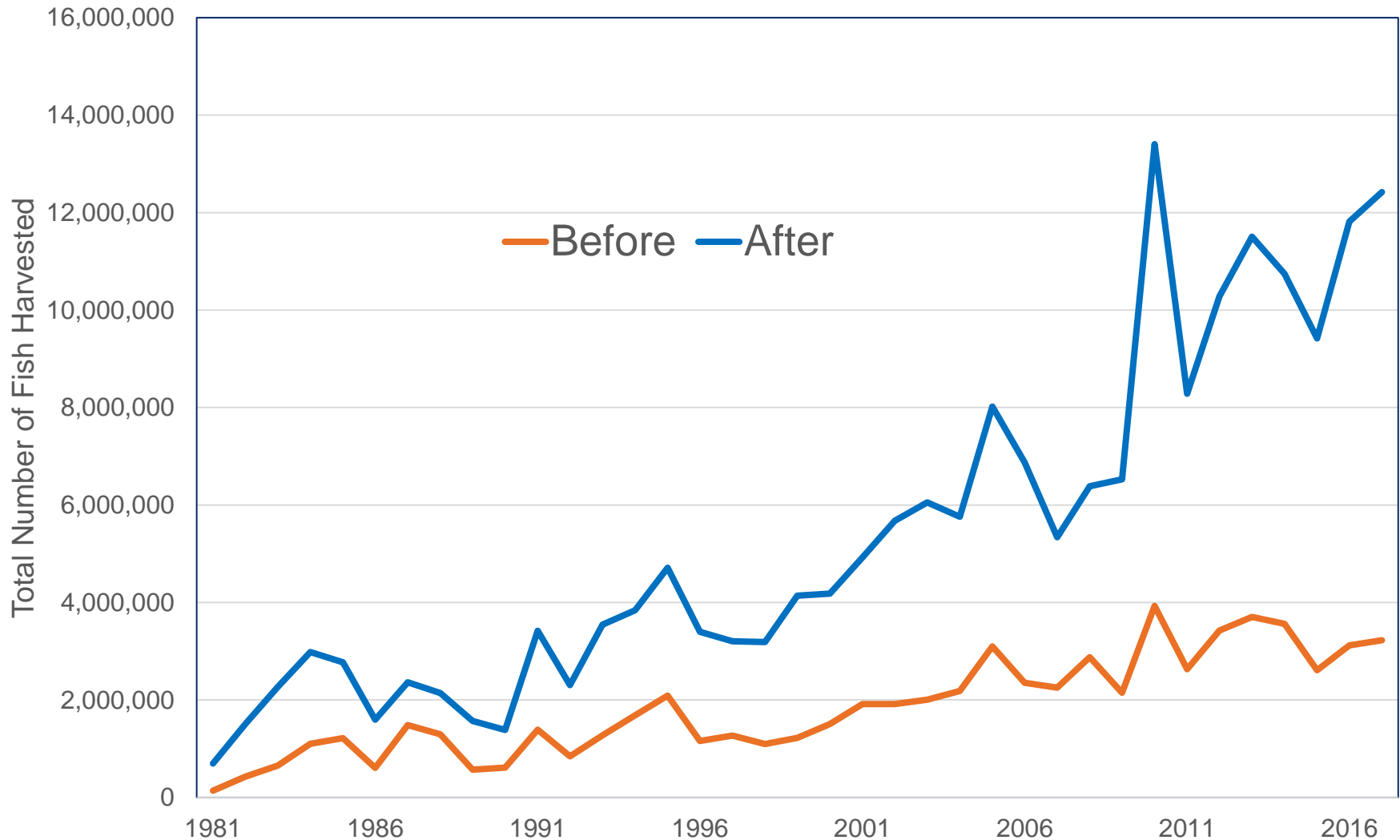
East Florida Shore Effort



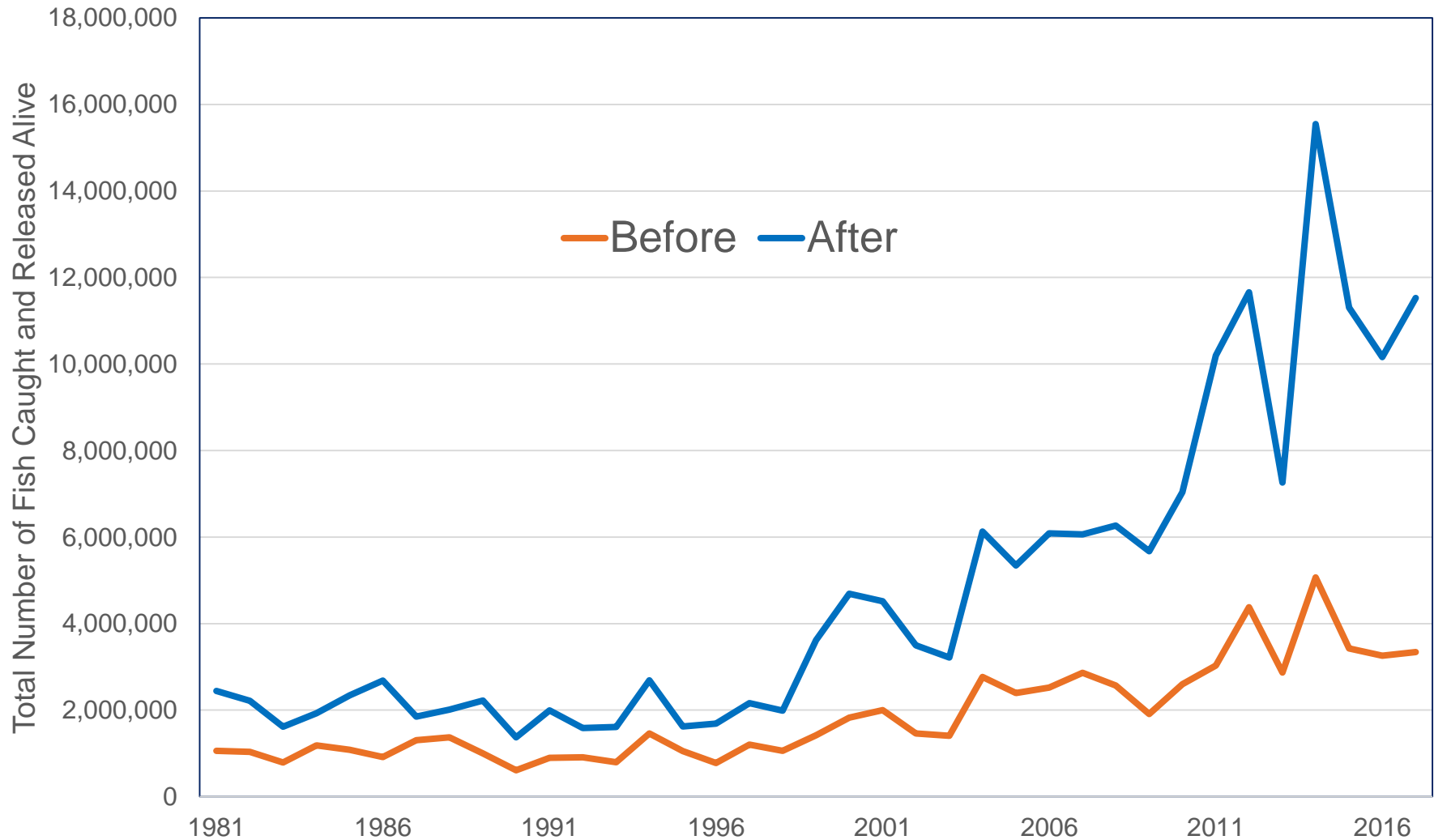
Red Drum Harvest



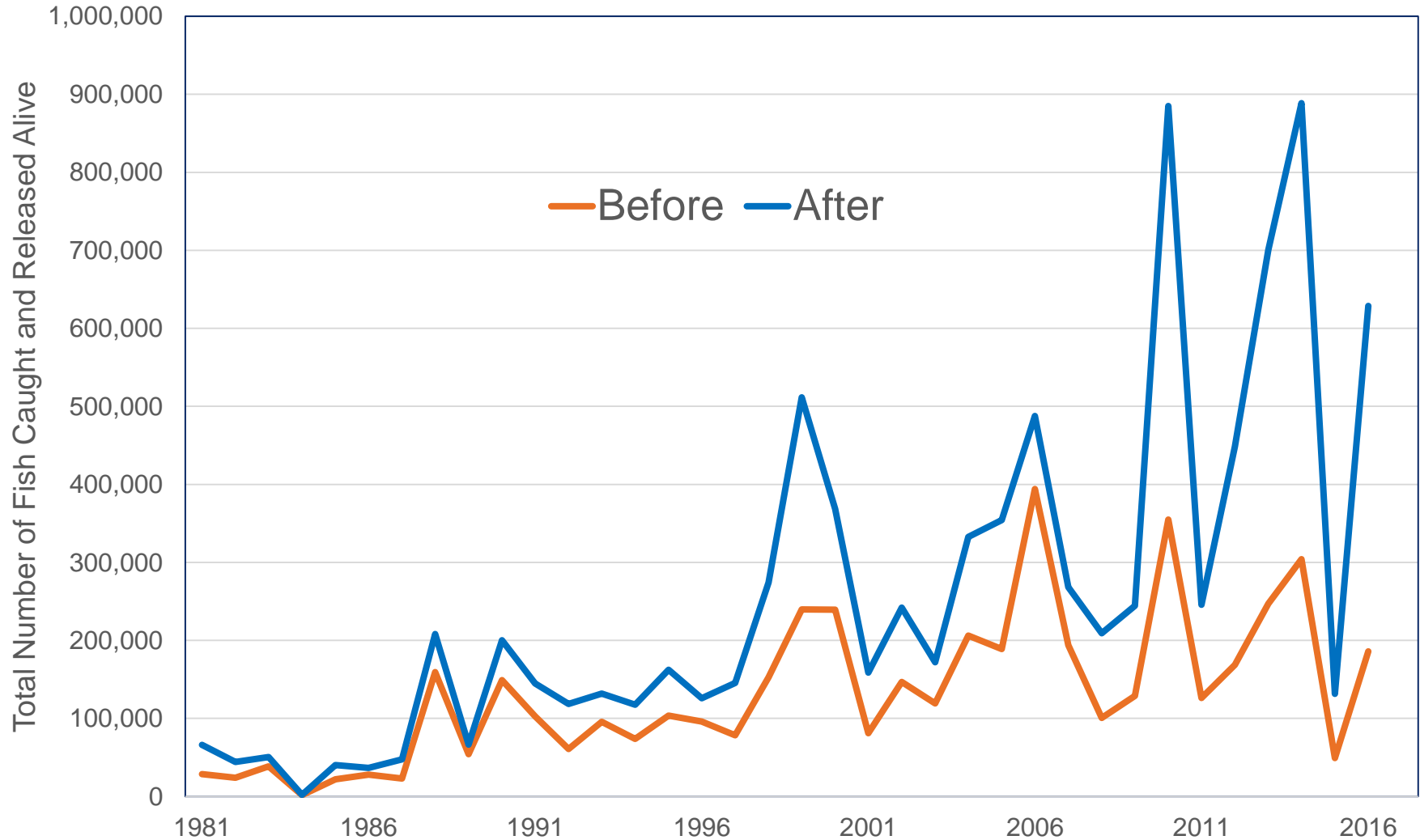
Red Drum Total Catch



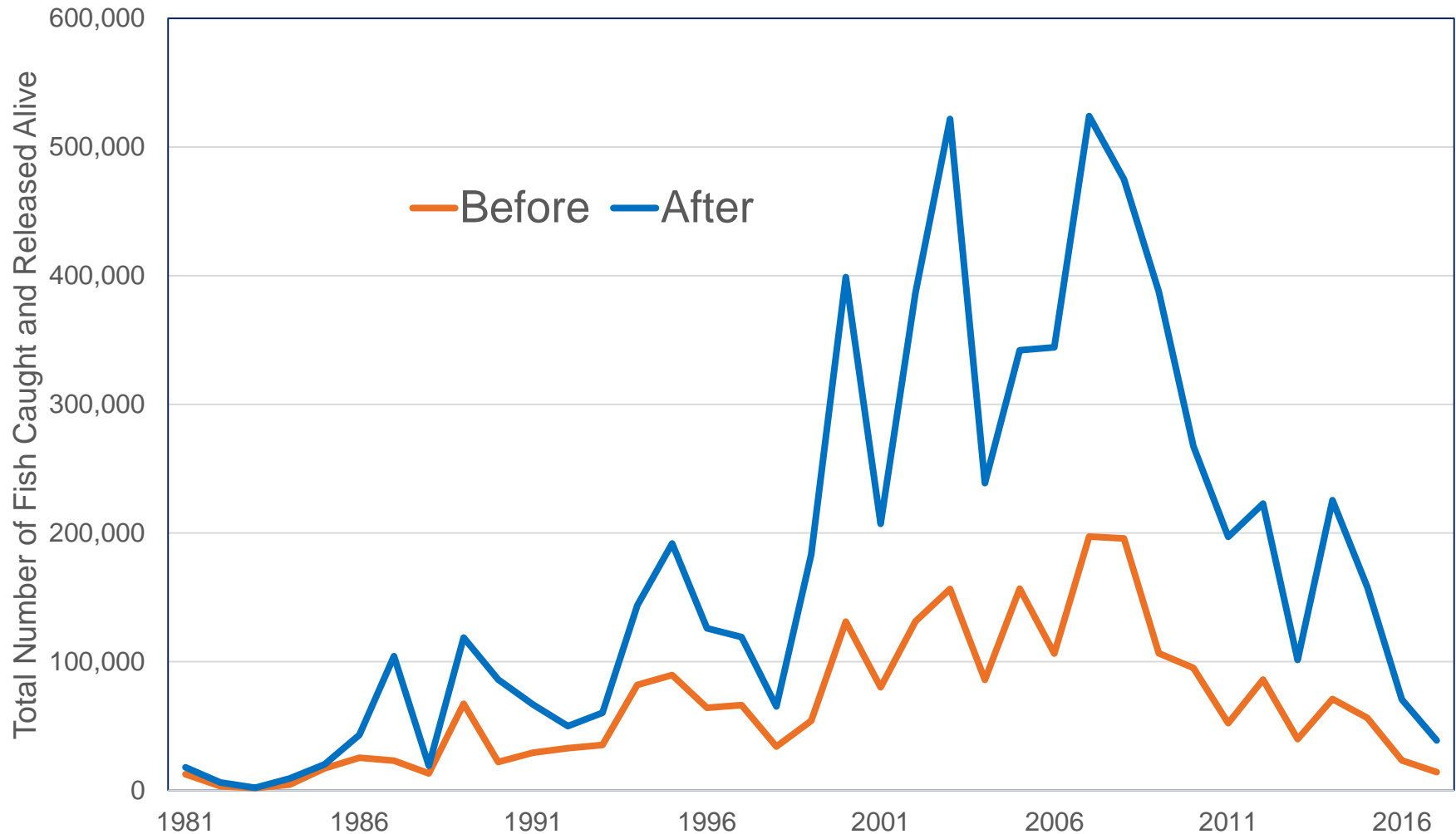
Black Sea Bass Released Catch



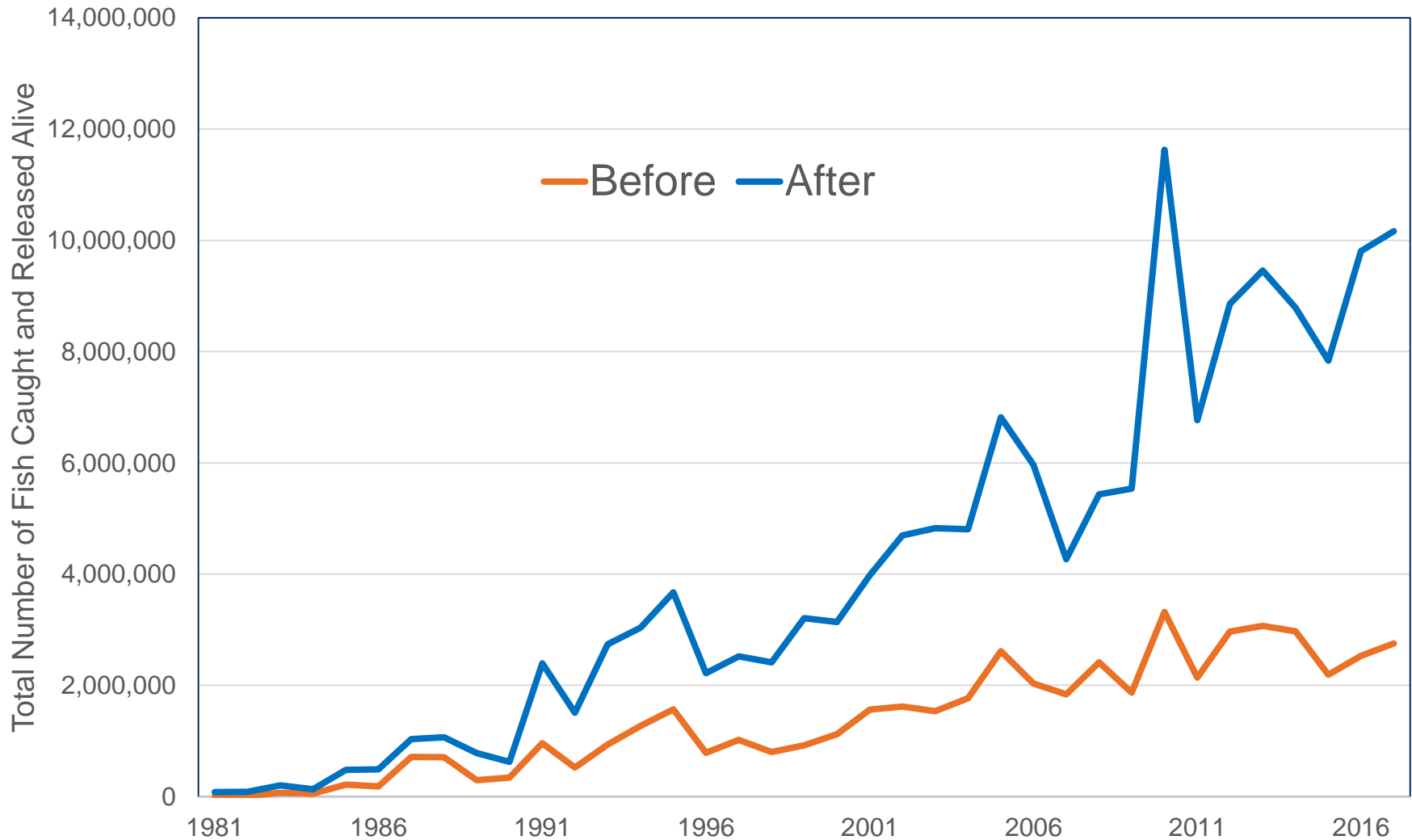
Dolphin Released Catch



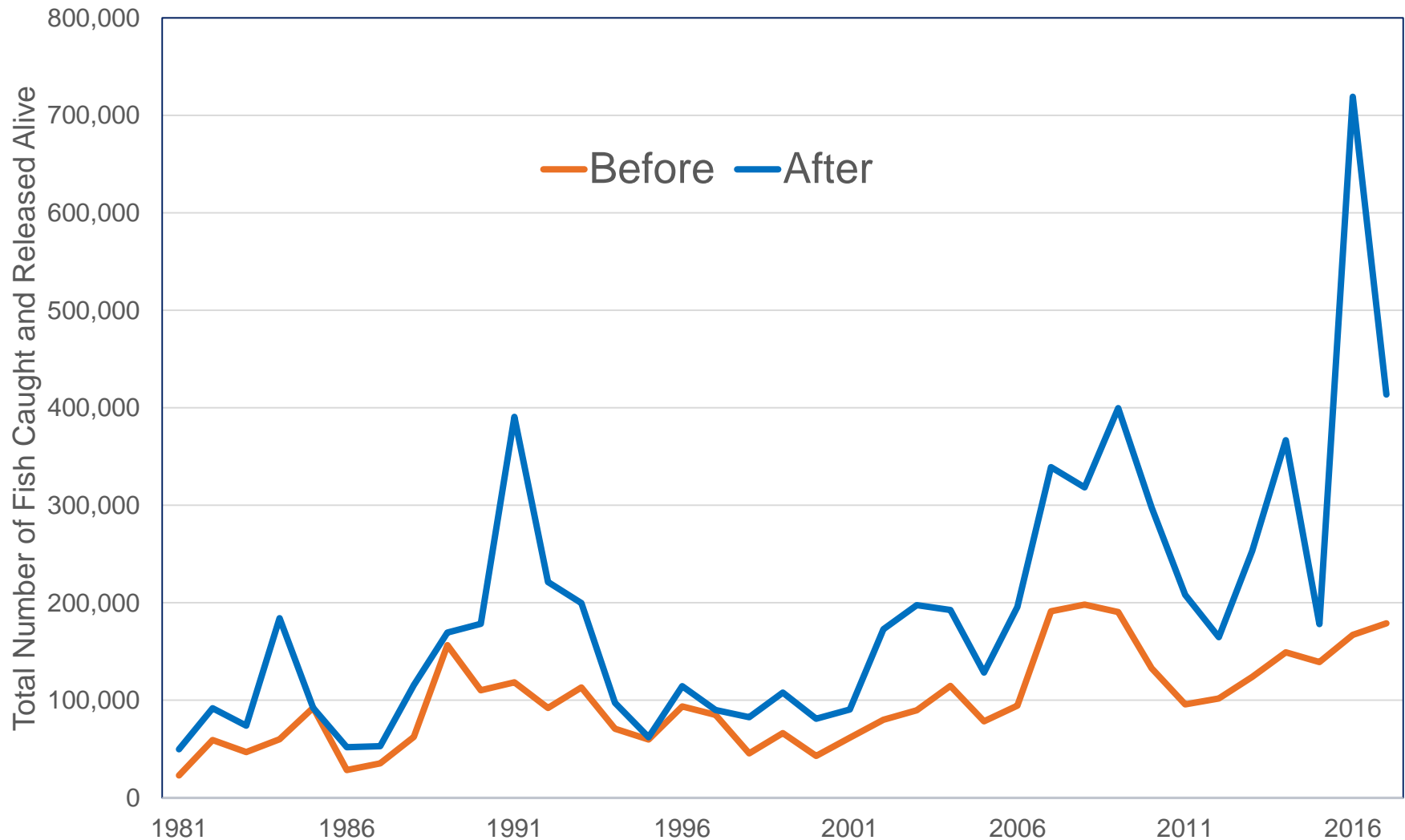
Gag Released Catch



Red Drum Released Catch



Spanish Mackerel Released Catch



Stock Assessment Schedule

Species	Region	Type	Timing
Striped Bass	Atlantic Coast	Benchmark	Fall 2018
Summer Flounder	Mid-Atlantic Coast	Benchmark	Fall 2018
Red Snapper	Gulf of Mexico	Data Update	Fall 2018
Atlantic Cod	Gulf of Maine	Operational	Early 2019
Black Sea Bass	Mid-Atlantic Coast	Operational	Early 2019
Bluefish	Atlantic Coast	Operational	Early 2019
Scup	Atlantic Coast	Operational	Early 2019
Spot	Atlantic Coast	Operational	Early 2019
Red Porgy	Southern Atlantic Coast	Full Update	May 2019
Greater Amberjack	Southern Atlantic Coast	Full Update	May 2019
Red Grouper	Gulf of Mexico	Full Update	July 2019
Gray Triggerfish	Gulf of Mexico	Full Update	Aug. 2019
Yellowtail Snapper	Southern Atlantic Coast/Gulf of Mexico	Benchmark	Nov. 2019
Red Snapper	South Atlantic	Full Update	2020

What's Next

2018

- Revised total catch estimates now available for use in planned stock assessments.
- 2018 ACLs and catch estimates will be in the **same “currency.”**

2019

- Preliminary management changes may be made for re-assessed stocks.
- Calibrated statistics incorporated into additional stock assessments.

2020

- Based on new stock assessments, management changes could occur for a number of species.

Recent Presentations



August 2

- Atlantic States Marine Fisheries Commission Assessment Science Committee and Management and Science Committee



August 14

- Mid-Atlantic Fishery Management Council



September 6

- Atlantic Highly Migratory Species Advisory Panel

Recent Presentations



September 24

- New York DEC DMR Marine Resources Advisory Council



New England
Fishery Management
Council

September 25-27

- New England Fishery Management Council



October 2-4

- Gulf of Mexico Fishery Management Council SSC

Upcoming Presentations

October 16-17

- Gulf States Marine Fisheries Commission



October 22-25

- Gulf of Mexico Fishery Management Council