

# **California Fish and Game Commission Marine Resources Committee**

## **Staff Report on California Coastal Fishing Communities Meetings**

**July 2018**

At the direction of the California Fish and Game Commission (Commission) and the Marine Resources Committee (MRC), Commission staff hosted a series of coastal fishing communities meetings to receive public input on issues of concern affecting the vitality and resilience of California's fishing communities, and the areas in which the Commission can play a role to foster greater stability and long-term vitality. This report provides a brief background on the impetus for this project, an overview of the coastal fishing meetings and questions posed to participants, a summary of key findings, and initial ideas generated from the meetings for MRC to consider preparing fishing communities for future resilience. The information is intended to support MRC discussion and guidance on potential options and approaches to prioritize for further development and public input.

### **Background**

In 2014, the Commission received a petition from three commercial fishermen in northern California requesting new fishery access adjacent to their port. While the request was to obtain small-scale experimental access to a restricted access fishery for a species that had become more locally abundant due to climate-driven shifts in distribution, the expressed intent was to support north coast harbors and fishing communities. The Commission requested that MRC schedule a discussion about the request and the community needs behind it. Following exploratory discussions with MRC in 2015, FGC directed staff to hold a public meeting to more comprehensively explore the concerns and needs of fishing communities.

A statewide meeting was held in Petaluma in July 2016. Over 40 members of the public attended, including commercial and recreational fishermen, fish processors, city and county elected officials and staff, environmental non-governmental organizations (NGOs), social scientists, and California Sea Grant staff. Participants emphasized that there were many changes and needs in their communities that could not be met under current management and policy conditions, and urged the State to more directly recognize community goals and the impact of different options on those communities while pursuing conservation and utilization goals in its fisheries management decisions. The meeting revealed that there was value in continuing the discussion; the Commission subsequently approved an MRC recommendation to broaden the conversation coast-wide through a series of locally-focused coastal fishing community meetings across the California coast. The goal of these meetings was to identify challenges facing individual coastal fishing communities and discuss strategies for building more resilience in the face of external stressors that included changing climate, ocean and economic conditions.

Seven locally-focused coastal fishing community meetings were held along the coast from June 2017 through June 2018 in Smith River, Fort Bragg, Montara/Half Moon Bay, Monterey, Atascadero, Ventura and San Diego. Attendance at each meeting ranged from 15-35

members of the public. The meetings offered a venue to more thoroughly explore, from the perspective of specific fishing-dependent coastal communities, current conditions and changes being experienced in different ports, constraints on adaptation, and needs for creating future resilience. The meetings were not only intended to inform the Commission, but to draw directly from the experience and expertise of community members to help generate ideas and potential pathways forward to adapt fishing practices or permitting structures in the face of changing fisheries and ocean conditions.

### **Coastal Fishing Community Meeting Highlights**

The coastal fishing community meetings were structured to include an introduction from Commission staff and participating commissioners. Each of the five commissioners was able to attend at least one meeting. Staff provided an overview of the Commission's role in implementing the State's vision for managing the State's commercial and recreational fisheries, the Commission's authority to set policies and regulations for fisheries in California's state waters (0-3 miles from shore), and answers to questions from the audience. For several of the meeting, port profiles were prepared and distributed to support the discussions (see Appendix B).

### ***Group Discussion***

At each fishing community meeting, staff overviews were followed by a full group discussion organized around a progression of exploratory questions to solicit input on:

- 1) The unique challenges faced within each fishing community;
- 2) How fishermen are adapting to these challenges;
- 3) The ideal vision for the future of each port; and
- 4) How the Commission can respond to help address challenges, facilitate adaptation, and support the future vision within the Commission's mandates and authorities.

### **Unique Challenges (Question 1)**

The following is a synopsis of the perspectives shared by fishing community members about the unique challenges facing their communities. The answers to the questions were used to draw general themes as seen across the state; specific responses and regionally-specific perspectives regarding unique challenges to each port are found in Appendix A.

- **Fisheries Management Changes and Access**

A repeated theme was "lack of access", whether this referred to availability of fishing grounds, adequate harvest levels, permits, or cost of permits. While these themes are explored further below, many challenges were attributed to the State's policy on restricting access. The main challenge that was presented is limitations on access to existing fisheries due to current fishing access and permit structures and constraints under the Commission's restricted access policy. This policy created a limited entry structure of specific fisheries and fisheries management decisions that have eroded flexibility within communities. This has occurred by reducing participation, prioritizing large operations, and allowing privately owned permits for a public resource. Meeting participants understood that in 1999, when the restricted access policy was adopted,

many of California's fisheries were overcapitalized and both ecologically and economically unsustainable as vessels became larger and faster, greatly increased fishing power and hold capacity, and used a wide variety of electronic innovations to find and catch fish. Simultaneously, fishermen increased knowledge of the behavior of target species within their trade. The goal of the restricted access policy was to address a fishery management problem and implement an effective solution to restrict fishing effort so that the "race for fish" ended. However, conditions have changed substantially in the past 20 years and, as of a result of state policy, coupled with federal fisheries management responses, fishing fleets in many port areas have greatly decreased and subsequently port infrastructure has declined. A change in policy could lead to adaptation of current management strategies and thus coastal fishermen have prioritized fisheries access policy as the highest concern for sustaining fishing communities.

- Changing Climate and Ocean Conditions, and Environmental Impacts on Fisheries

Varying environmental conditions have had both individual and cumulative on fisheries and coastal communities, particularly associated with climate change and changing ocean conditions. Marine heat waves; species distribution shifts; increased interactions with protected species; increased frequency and severity of storms; kelp forest ecosystem imbalance resulting from multiple stressors; ocean acidification; sea level rise; reduced productivity of spawning and rearing waters and biogenic habitat; and biotoxins and harmful algal blooms, have been detrimental to several fisheries in different ways. Extreme ocean events have occurred at an unprecedented magnitude and frequency. Participants shared their experience about unique impacts fishing communities will endure as productivity, health, and distribution of target marine species change, affecting their economic livelihoods. These events and associated uncertainty have served to expose challenges in adapting under the current management structure.

- Loss of Historic Fisheries

Fishing communities are still experiencing the impact of the loss of historic fisheries that occurred due factors such as decreased fish stocks and constraints to fishing seasons (e.g., salmon), catch levels (nearshore), or available fishing grounds (rockfish conservation areas) to support stock rebuilding plans. Implementation of "fisheries rationalization" and capacity reduction plans such as federal groundfish trawl individual transferable quotas (ITQs), and implementing state restricted access programs in California with new qualification criteria for "initial permit issuance" met its goals but had some unintended consequences: loss of locally-held catch quota or previously-held permits, shrinking of fishing portfolios, loss of small scale open access options and other constrained opportunities for accessing existing fisheries or developing new fishery opportunities.

- Flexibility to Tailor Fishing Opportunities to Port-Specific Conditions

A clear message across the meetings was that communities are seeking opportunities to adapt fishing to current conditions in their ports. In some areas, the loss of infrastructure previously associated with large volume fisheries means that communities need to adapt to smaller volume-based fishing operations compatible

with remaining infrastructure, including storage and ice facilities. Small fishing communities reported that they have a difficult time advocating for their access needs and competing with higher-value fishing organizations that can pay for professional fishery advocates. With climate change, fishermen see opportunities for “pop-up fisheries” for potentially ephemeral but now-locally-available fish. Community members emphasized the importance of managers recognizing that fishing opportunities for a port can change markedly and advocated for collaborative development from the bottom up with fishermen, processors, agency representatives, and researchers to tailor fishing opportunities when different opportunities for new access arises.

- *Deteriorating Infrastructure*

Since variable catches are not consistent enough to retain infrastructure, port infrastructures are deteriorating. Many fishermen have expressed frustrations about the lack of resources or facilities to accomplish their work. Many ports are losing docks, ice machines, storage, and fuel facilities. There were overwhelming requests for actions that would enhance infrastructure to save fishing communities.

- *Retaining Local Markets*

Fishing communities are faced with the challenge of retaining local markets for fish products since they experience competition with non-California product importations. Sometimes after a fishery closure, markets may fill the product gap with imported product and they do not tolerate variable catch. There is an increased demand for buying local fish, yet fishermen have limited access and struggle to meet the demand.

- *Complex Regulations (both State and Federal)*

Many fishermen experience difficulty with the existing management structure complexity and in deciphering regulations. There are different regulations for nearshore versus offshore, it is challenging to interpolate legal boundaries, and party boats have to know and understand regulations for all species. Many fishermen have also expressed the lack of simple information clearing houses and the struggle of complying with demands of federal regulation.

- *Permit Availability and Costs*

Due to the restricted access policy, there are permit transferability constraints and/or high costs to purchase permits. If permits are available, most are sold on the open market and are significantly more expensive. Furthermore, permits are often designed for higher vessel capacity instead of small scale opportunities.

- *Recruitment of New/Young Fishermen*

Due to the high cost of entry into the fishery, there is a shrinking fleet and lack of young fishermen entrants. With a limited career trajectory for young fishermen, there may not be enough fishermen in the future to keep commercial fisheries running and jeopardize food security. Furthermore, cultural knowledge within fisheries will be lost with the retirement of older fishermen.



- *Data Gaps in Fishery Management*

There are currently data gaps in fishery management that prohibit new management decisions to be made. Fishermen are frustrated with the current stock assessment process. As a result of this issue, fishermen want to use their wealth of knowledge and engage in filling the research gap by collecting the necessary data to contribute to more effective management decisions.

- *Competing Uses*

Fishing communities are threatened by a variety of alternative competing uses. These include spatial uses in ocean waters overlapping with fishing grounds including potential aquaculture farms, alternative energy facilities such as offshore wind farms, and desalination plants. There is also competition for onshore space utilization associated with gentrification including repurposing commercial fishing docks for yachts and pleasure boats, conversion of storage warehouses into breweries or restaurants, etc. Competing uses often generate higher income than commercial fish landings; ports that have maintained commercial fishing facilities and docks have often done so through intentionally planning and prioritization of the non-monetary value of fishing to their community and maintaining its cultural heritage, while in other ports the fishing industry is seeking ways to champion that purpose.

### *Current Adaptation Strategies (Question 2)*

A number of the key concerns highlighted during the group discussions associated with changing conditions and constraints on creative adaptation. Participants were specifically asked how they adapt when the key fisheries in which they engage are no viable or are closed. Responses included:

- Shifting geographic location from local communities based on seasons or resource availability (home port vs. away ports)
- Redirecting focus from primary fisheries to secondary or different fisheries (e.g., fishermen turned to squid and sablefish in Half Moon Bay during salmon crash)
- Seek jobs outside of fishing
- Charter sport fishing boats: Switch to ecotourism and whale watching expeditions

### *Future Vision (Question 3)*

Participants were asked to describe not only what changes they have seen in and around their ports over the past 20 years, but also what they envision for their ports to be like 20 years from now. Responses included:

- Prioritization and support for fisheries from harbors and ports in the form of: offloading resources; local markets; reserved storage space for fishing boats and equipment; rebuilt waterfront infrastructure to support fishing activities
- Streamlined permitting process, with more regionally-focused permit structures
- Permit fishing for multiple species at different scales of operation

- Community co-ops, where fishermen agree to sell all landed catch to one place and profits are split amongst fishers who participate in the co-op
- Recreational and commercial fisherman participation in tagging/collecting data (sampling)
- Fishermen included in marine protected area collaboratives
- Increased education of commercial fishing
- Flexibility in fisheries management
- Lower license costs
- Electronic representations of the current fishing regulations at each port
- Modernization of facilities

#### Potential Commission Actions (Question 4)

Finally, participants were asked what policies or regulation changes they would like to see the Commission develop to help adapt to uncertain conditions and meet future goals for their ports. Responses included:

- Re-evaluate how FGC approaches restricting access to fisheries - open small-scale and community based fishing access
- Adopt a fisheries policy that states that the Commission supports a future with California commercial fisheries and will consider needs fishing communities in its decision-making
- Grant new fishing permits in existing fisheries (e.g., squid, pink shrimp) or open new fisheries opportunities (e.g., box crab, octopus) to expand long-term fishing opportunities
- Encourage young fishermen/new entrants to join fishing communities. Ideas shared included:
  - Adopt an apprenticeship program
  - Create incentives for participation
  - Establish a lower cost “apprentice” or “entry level” commercial fishing permit with a lower fee and opportunities to learn and leverage resources from experienced fishermen
  - Promote pier fishing to bring young fishermen into the industry
- Permit transferability. Ideas shared included:
  - Redistribute retired permits to other fishers, family members, and/or apprentices (young fishermen/new entrants)
  - Make permits more easily transferrable within an apprenticeship program (e.g., no fee, lower fees)
  - Create community permit banks to purchase permits
- Allow twelve-month sport fishing licences from the date of purchase
- Develop a fishing community sustainability plan at state level

- Recommend that the California Department of Fish and Wildlife (CDFW) conduct stock assessments for all fished species
- Re-examine historical policies and their impacts on coastal fishing communities
- Implement adaptive management in the Marine Life Protection Act (MLPA)
- Implement artificial reefs to provide more fish habitat and fishing opportunities
- Increase stability and local control by tying permits to ports or restricting permit transfers to in-state or regional area (re: groundfish trawl ITQ)
- Engage more directly in PFMC meetings either via coordination/input to CDFW representatives, or directly
- Employ fishermen to collect data to fill information gaps and enhance management and opportunity
- Adopt a principle on not importing seafood

### ***Staff Recommendations: Initial Concepts for Potential Development***

Input from fishing communities of potential supportive actions generally fell into fisheries management/regulatory actions (“Management”), changes to existing policies (“Policy”), or actions outside of Commission policy and regulation (i.e., “Other”). Staff recommends that MRC consider recommending to the Commission a broad range of options, both within the Commission’s policy and regulatory authority, as well as considering how to extend beyond these core functions into other areas of influence. The initial list of potential actions highlights possible areas of focus, which can be used to evaluate and prioritize what the Commission will choose to address following public input and feedback.

1. *Develop and adopt a policy on coastal fishing communities:* Consider developing a new policy related to coastal fishing communities for Commission adoption.
2. *Review the Commission’s policy on restricted access commercial fisheries:* Review how the policy has been applied since it was adopted in 1999 – where it was applied (or not) to specific fisheries, how the policy performed at meeting the fishery objectives, unintended consequences in fishing communities, and whether any objectives have changed that warrant possible changes to the policy. This complex policy includes 21 individual sub-policies across 9 unique topic areas.
3. *Identify specific projects to test new approaches:* Work with stakeholders and partners to develop small-scale projects to test new approaches or departures from the restricted access policy. Consider small-scale fishing opportunities in particular, designed to fill information gaps.
4. *Engage legislative staff to pursue adjustments to laws as ideas are refined, through vehicles such as the current fisheries omnibus bill.*
5. *Direct staff to increase engagement and coordination with sister agencies on management decisions affecting California:* Include PFMC, CDFW staff representing California interests at PFMC, California Coastal Commission, etc.
6. *Explore/research possible community-based adaptable fishery structures (e.g., community permit banks or risk pools):* Explore options for community-organized

structures that provide for adaptable responses within the community and could include co-management responsibilities. Consult with partner organizations and possibly convene an experts' workshop; this may require legislative or regulatory frameworks to accommodate such avenues.

7. *Explore filling data needs through collaborative research and data collection:* Work with CDFW on identifying data gaps and possible scientific information that could be gathered through collaborative research or experimental fishing between partner entities and fishermen.
8. *Survey communities, commercial and recreational fishers, and processors about their priorities for Commission focus.*

For all of these potential actions, and any others identified by MRC or the Commission, staff will need to develop a work plan to clarify goals/objectives and identify specific next steps. Staff recommends that a more detailed discussion about the initial concepts for potential development, and potential recommendations to the Commission, be held at MRC's November 14, 2018 meeting in Sacramento.

## **APPENDIX A: Common General and Port-Specific Challenges**

### **Common General Challenges**

- Loss of access to historical fishing grounds, beach, and piers
- Restricted access
  - Limited access to local resources
  - Existing permit structure within state managed fisheries (permits are often for large-scale operations)
  - Results in transient existence of fleets and fishermen
  - Fishery and area closures
  - No access to areas where species have recovered
  - Cannot compete with imported fish sold at lower prices
  - Limited market and economic value
  - Demand for buying local is high
  - Decreased profitability with increased fish taxes
  - Decreased food system viability
  - Seasonal closures limiting access to markets
  - Increased fishing fees reduces fishing opportunities
- Limited career trajectory for young fishermen
  - Shrinking fleet and lack of young fishermen entrants
  - High cost of entry
  - Cultural knowledge lost with the retirement of older fishermen
  - Not enough fishermen to feed people (food security)
- Deteriorating infrastructures
  - Loss of docks, ice machines, storage, and fuel facilities
  - Variable catches aren't consistent enough to retain infrastructure
- Environmental impacts
  - Climate change (e.g., species distribution shifts, marine heat waves, loss of biogenic habitat)
  - Coastal erosion
  - Diseases and human health risks (e.g., harmful algal blooms)
  - Drought
- Permit transferability constraints and/or costs to purchase
- Difficulty in deciphering regulations
  - Different regulations for nearshore versus offshore
  - Lack of simple information clearing houses
  - Difficult to interpolate legal boundaries
  - Conflicting regulations between federal and state laws (e.g., for shark fin ban)

- Data gaps in fisheries management
  - Stock assessment process needs revision for all fished species
  - Lack of data
- Competing uses
  - Marine spatial planning initiatives (e.g., aquaculture impacts on port dynamics, offshore wind energy)
  - Competition with onshore businesses (e.g., restaurants)

## **Port-Specific Challenges**

### *North Coast*

- General:
  - Problems related to reallocation of federal groundfish individual transferable quota (ITQs) to outside of California
  - Competition with Oregon for processing capabilities and market
  - Small communities have a difficult time advocating for their access needs
    - e.g., FGC denying requests that fishermen believe are available, such as issuance of experimental squid permits or new pink shrimp permits)
  - Restrictions on nearshore fishing due to Pacific Fishery Management Council (PFMC) limits
- Smith River:
  - No credit for closures of yelloweye rockfish (constrains all other groundfish catch)

### *Central Coast*

- Half Moon Bay:
  - Fishing is concentrated in nearshore areas and no access to deep reef
  - Need regulation for tier allocation (e.g., crab and salmon)
  - Layout of rockfish conservation areas are arbitrary and difficult to decipher
  - Limited access to chilipepper rockfish since a special permit is required
- Monterey:
  - Over-regulation of groundfish and fishing grounds constrained by rockfish conservation areas
  - Loss of California halibut trawl grounds in Monterey Bay waters
- San Luis Obispo:
  - Trident Winds' proposal for offshore wind energy development project
    - Potential impact on fishable area
    - Fishing between windmills is a safety issue
    - Impact of wind energy cables on fishing

### *South Coast*

- General:
  - Increase in marine mammal populations (e.g., sea lions, otters)
- Santa Barbara:
  - Moratorium on abalone fishing. Still being impacted by closure of commercial

abalone fishery.

- Ventura:
  - Redevelopment process that reduces commercial and recreational fishery access to the harbor
  - Difficulty in determining legal sheephead size when lengths shrink after being filleted
  - Sea cucumber trawl fishing needs a time limit
  - Increased harbor business costs
  - Lack of money to dredge harbor mouth
  - Lack of lingcod data for management decisions
- San Diego:
  - Lost fishing access due to Shelter Island ramp construction
  - Tijuana River sewage spills polluting fishery
  - Transboundary issue
  - Difficulty in importation process from Mexico due to recreational fishing possession regulation in California
  - Need to expand hatchery program to include halibut and yellowtail

## **Appendix B: Fishing Community Profiles for Select Ports**

The following pages include profiles of commercial and some recreational fisheries for recent years in the following port areas:

- Fort Bragg
- Bodega Bay
- San Francisco
- Half Moon Bay
- Morro Bay Area
- Santa Barbara Channel Area



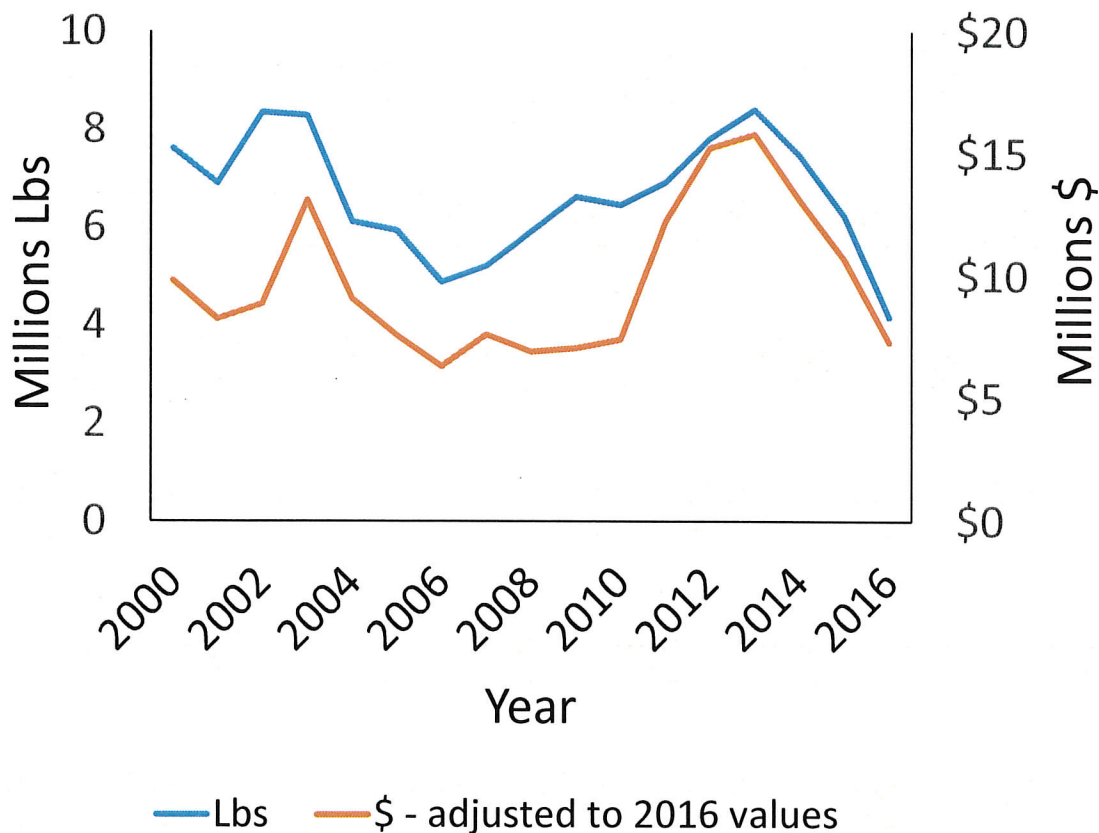
# Fort Bragg FISHING COMMUNITY PROFILE

~7 million lbs  
average  
annual  
landings

246  
Commercial  
Fishing  
Vessels

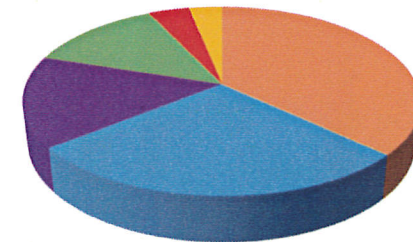
8 Commercial  
Passenger  
Fishing Vessels  
(8 year average)

## TOTAL COMMERCIAL LANDINGS AND VALUE: 2000-2016



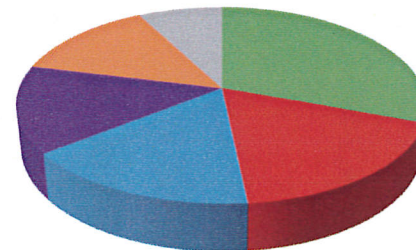
## TOP 6 SPECIES BY VALUE (\$)

5 Year Average: 2012-2016



## TOP 6 SPECIES BY WEIGHT (LBS)

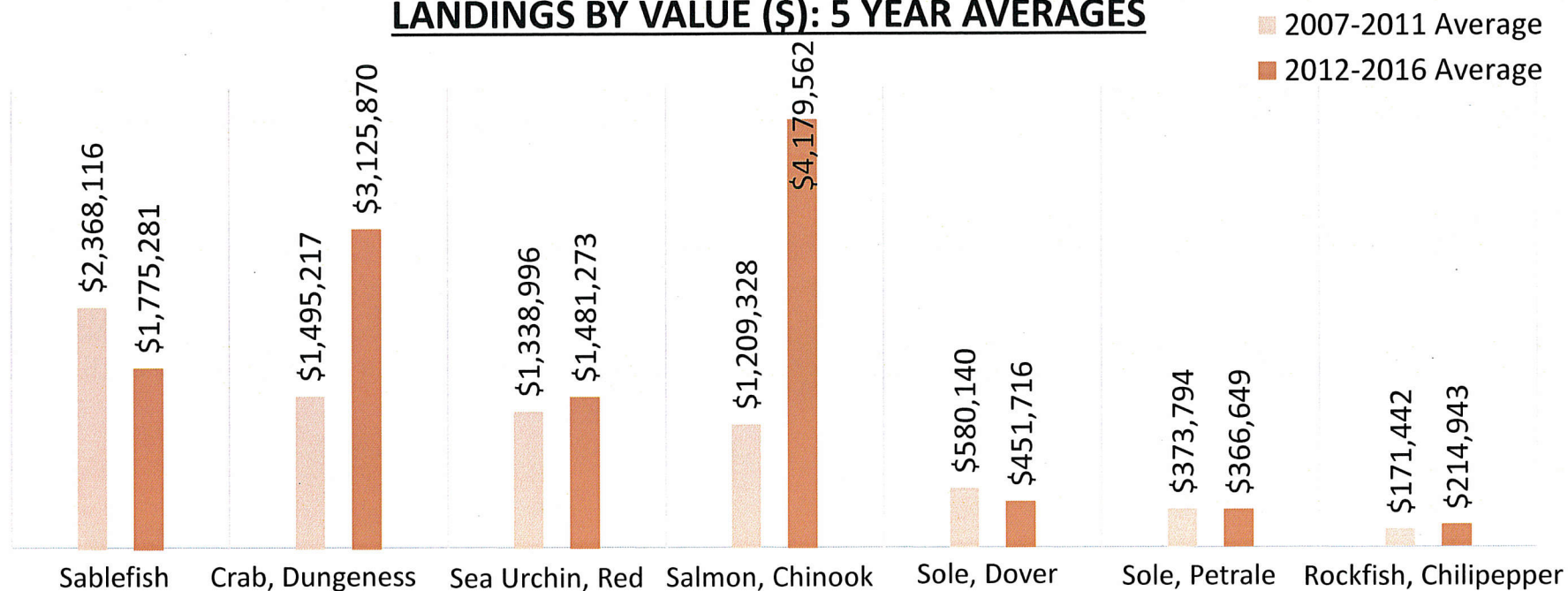
5 Year Average: 2012-2016



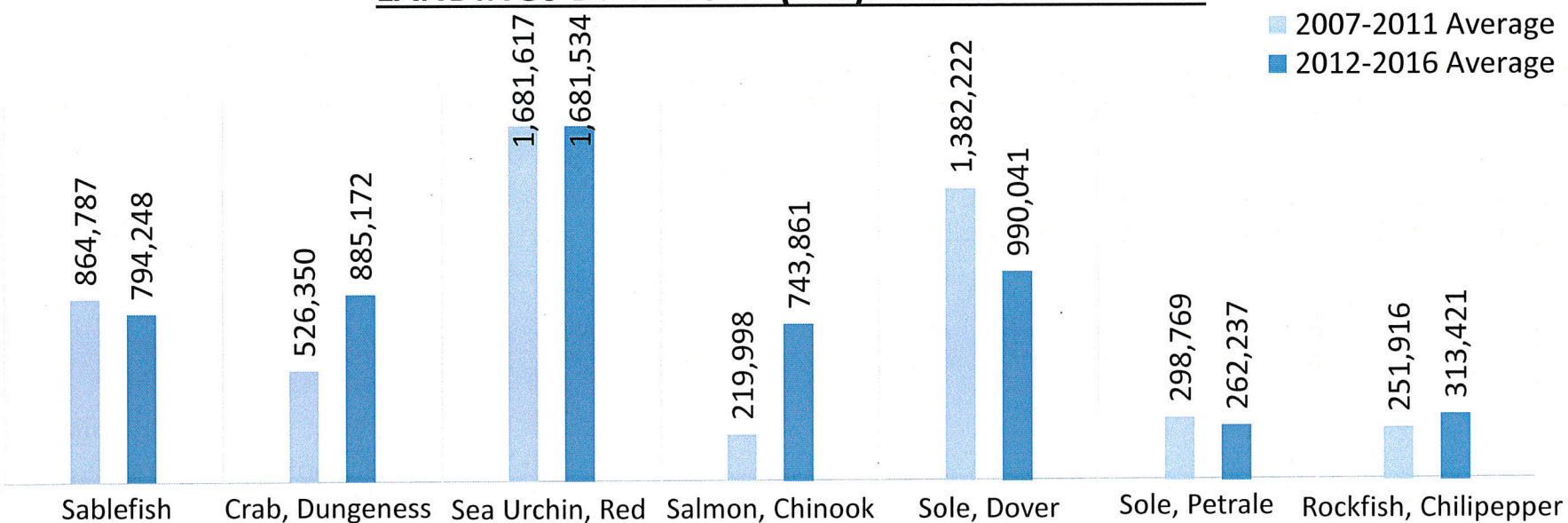


# COMMERCIAL LANDINGS OF SELECT SPECIES IN 2007-2011 VS 2012-2016

## LANDINGS BY VALUE (\$): 5 YEAR AVERAGES



## LANDINGS BY WEIGHT (LBS): 5 YEAR AVERAGES





# Bodega Bay

## FISHING COMMUNITY PROFILE

~3 million lbs  
average  
annual  
landings

257  
Commercial  
Fishing  
Vessels

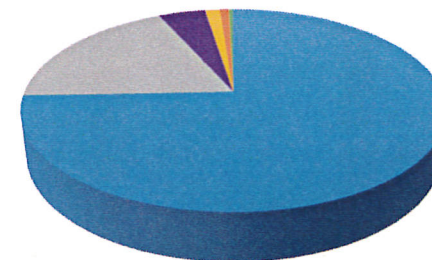
12 Commercial  
Passenger  
Fishing Vessels  
(8 year average)

**TOTAL COMMERCIAL LANDINGS AND VALUE:  
2000-2016**



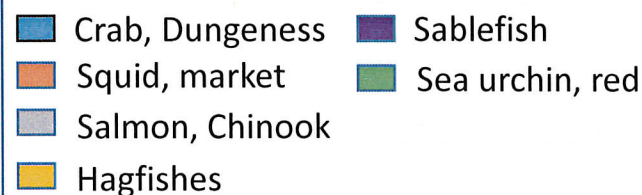
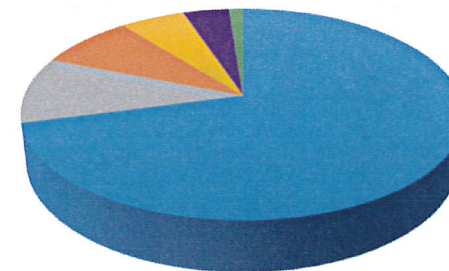
**TOP 6 SPECIES BY VALUE (\$)**

5 Year Average: 2012-2016



**TOP 6 SPECIES BY WEIGHT (LBS)**

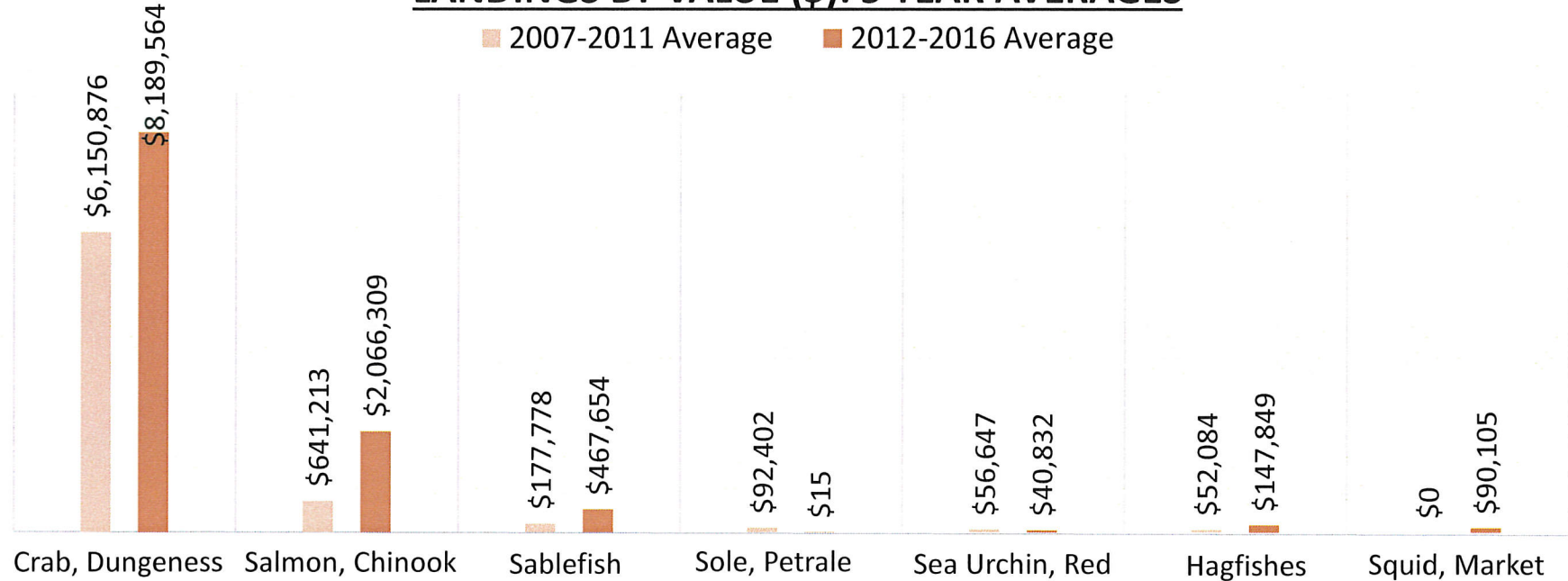
5 Year Average: 2012-2016



# COMMERCIAL LANDINGS OF SELECT SPECIES IN 2007-2011 VS 2012-2016

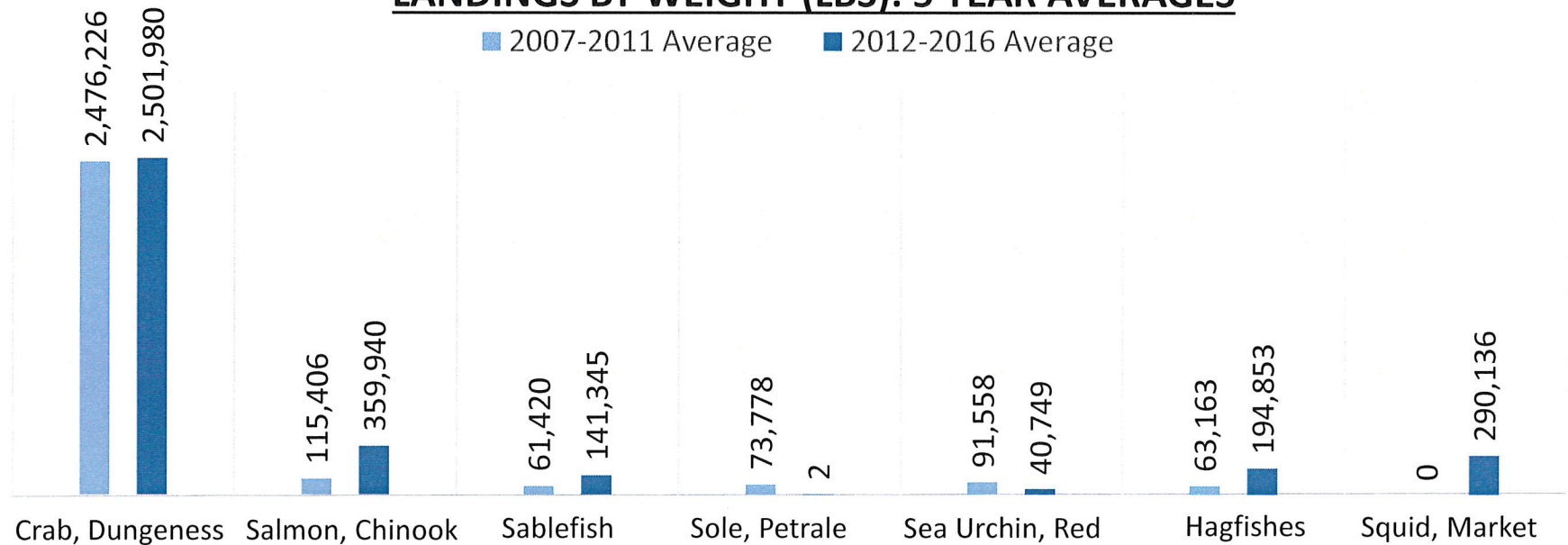
## LANDINGS BY VALUE (\$): 5 YEAR AVERAGES

2007-2011 Average 2012-2016 Average



## LANDINGS BY WEIGHT (LBS): 5 YEAR AVERAGES

2007-2011 Average 2012-2016 Average





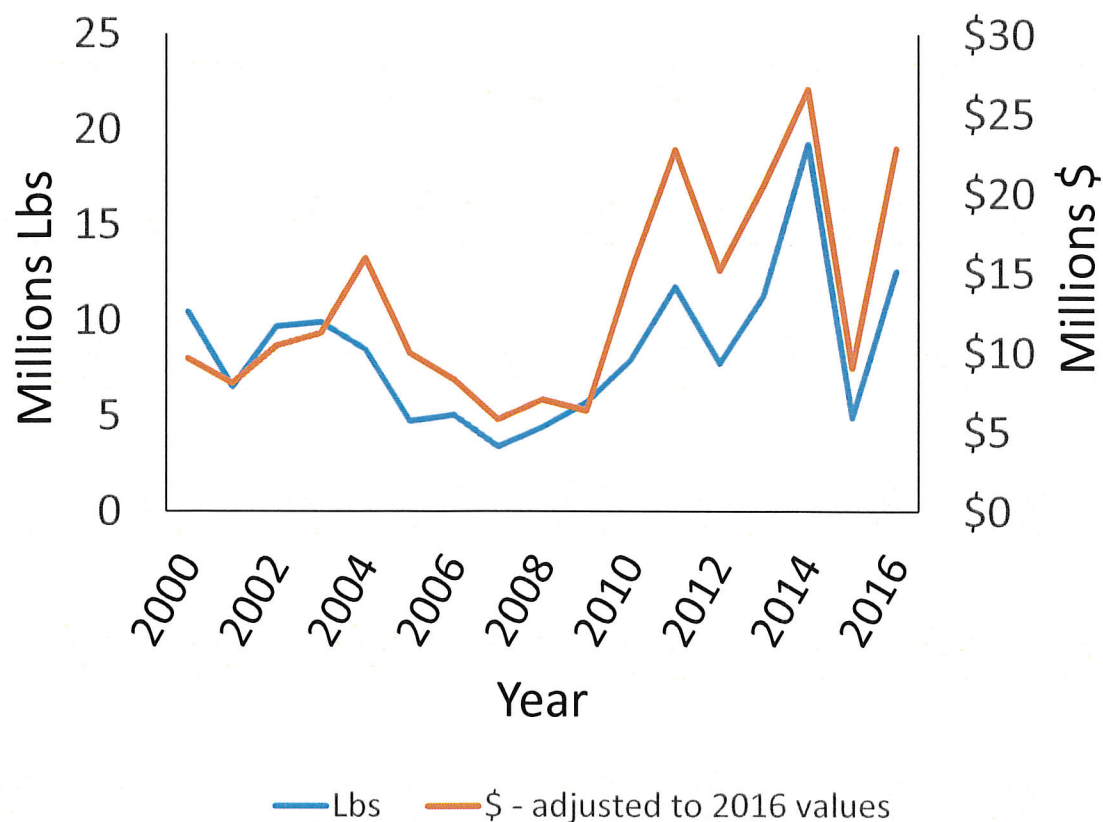
# San Francisco FISHING COMMUNITY PROFILE

421  
Commercial  
Fishing  
Vessels

15 Seafood  
Processors

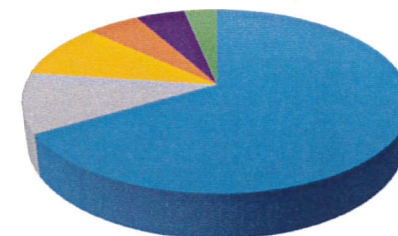
32 Commercial  
Passenger  
Fishing Vessels  
(8 year average)

## TOTAL COMMERCIAL LANDINGS AND VALUE: 2000-2016



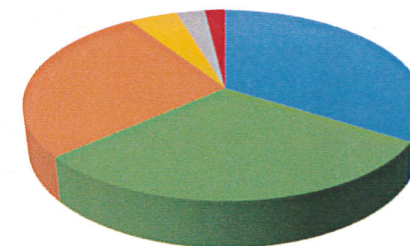
## TOP 6 SPECIES BY VALUE (\$)

5 Year Average: 2012-2016



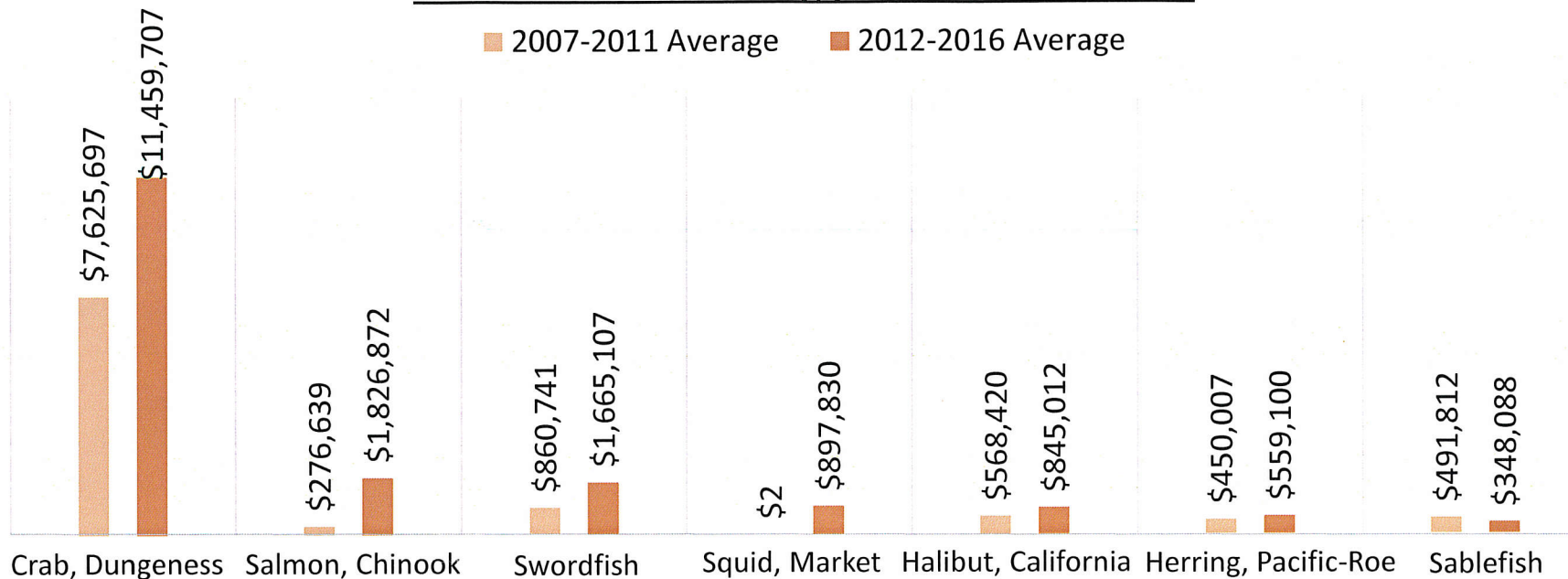
## TOP 6 SPECIES BY WEIGHT (LBS)

5 Year Average: 2012-2016

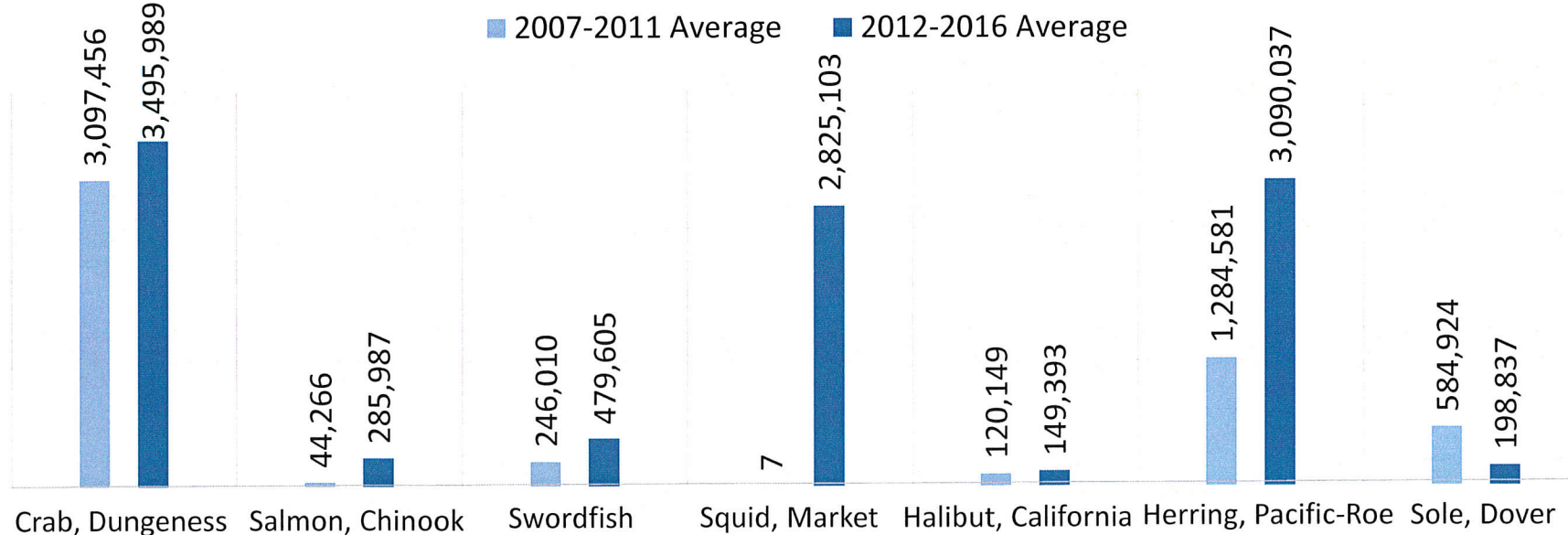


# COMMERCIAL LANDINGS OF SELECT SPECIES IN 2007-2011 VS 2012-2016

## LANDINGS BY VALUE (\$): 5 YEAR AVERAGES



## LANDINGS BY WEIGHT (LBS): 5 YEAR AVERAGES





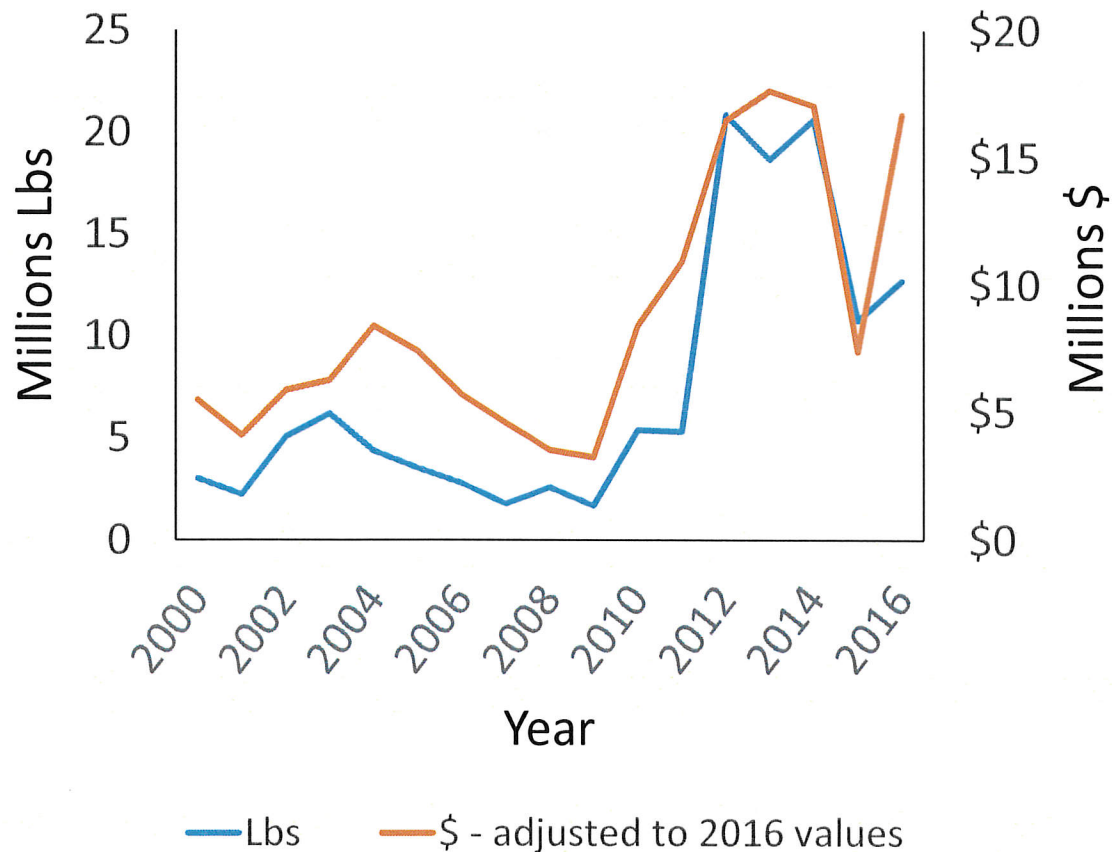
# Half Moon Bay FISHING COMMUNITY PROFILE

~8 million lbs  
average  
annual  
landings

162  
Commercial  
Fishing  
Vessels

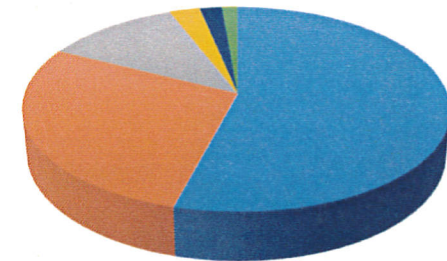
8 Commercial  
Passenger  
Fishing Vessels  
(7 year average)

## TOTAL COMMERCIAL LANDINGS AND VALUE: 2000-2016



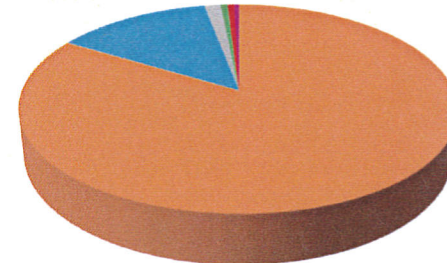
## TOP 6 SPECIES BY VALUE (\$)

5 Year Average: 2012-2016



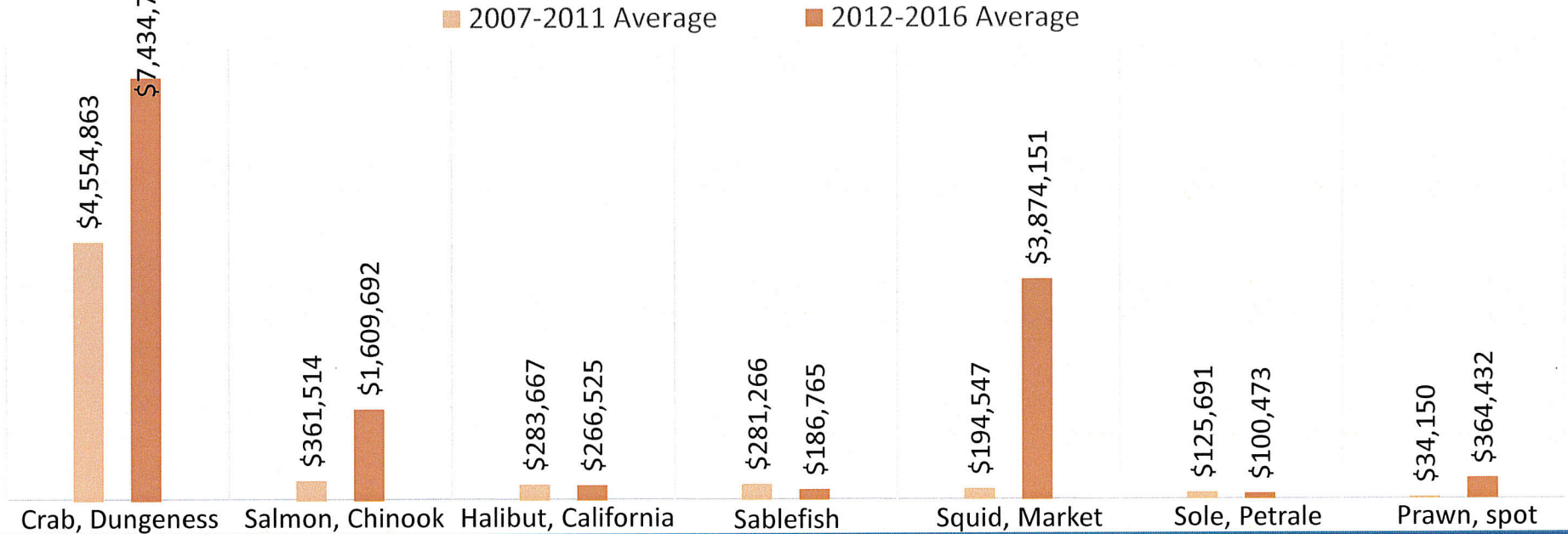
## TOP 6 SPECIES BY WEIGHT (LBS)

5 Year Average: 2012-2016

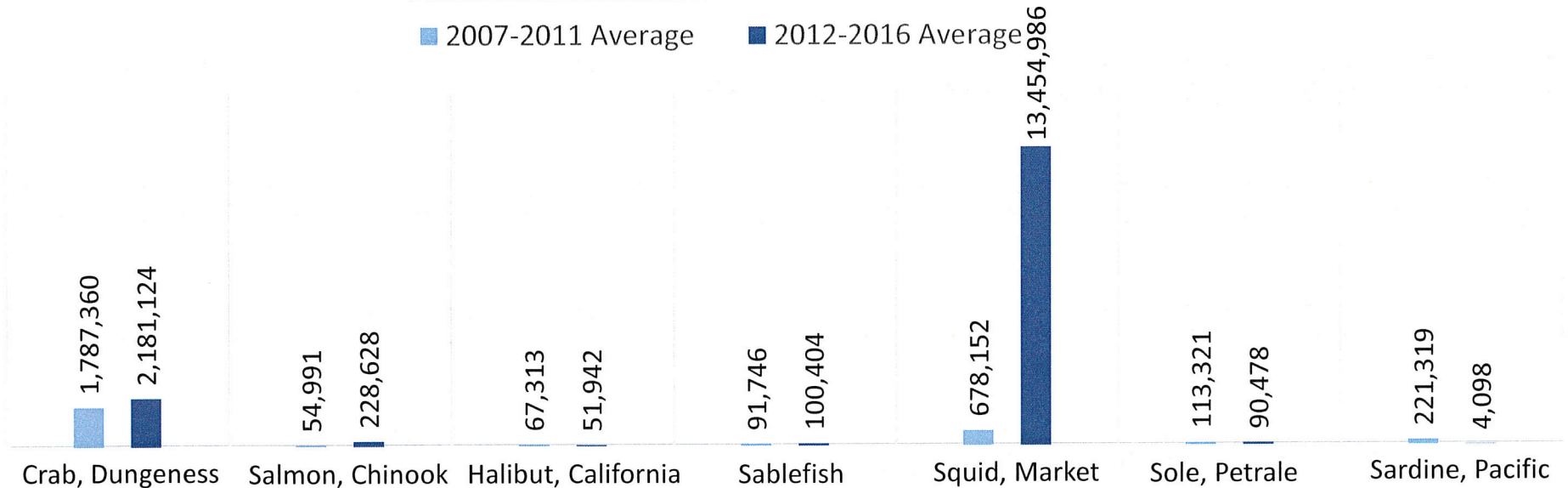


# COMMERCIAL LANDINGS OF SELECT SPECIES IN 2007-2011 VS 2012-2016

## LANDINGS BY VALUE (\$): 5 YEAR AVERAGES



## LANDINGS BY WEIGHT (LBS): 5 YEAR AVERAGES





# MORRO BAY AREA FISHING COMMUNITY PROFILE

Includes Morro Bay, Avila/Port San Luis,  
and San Simeon

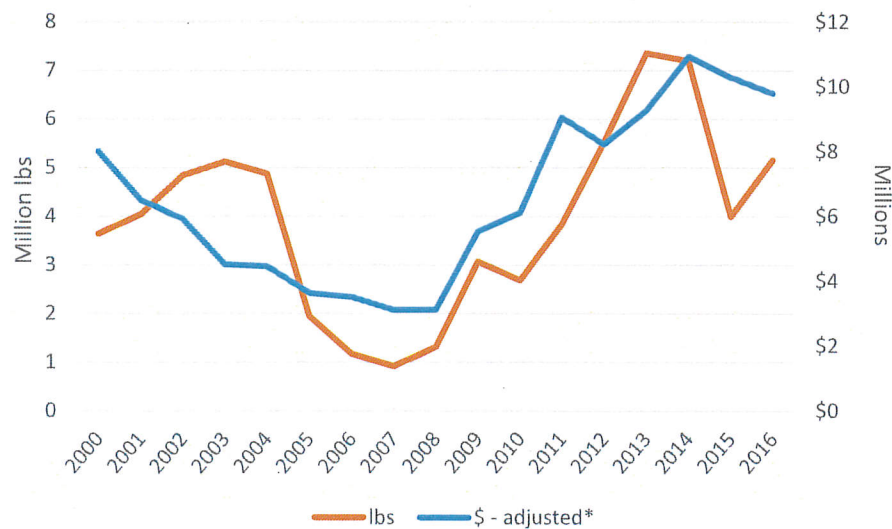
50-60  
Commercial  
Fishing  
Vessels

8 Charter  
Fishing  
Vessels

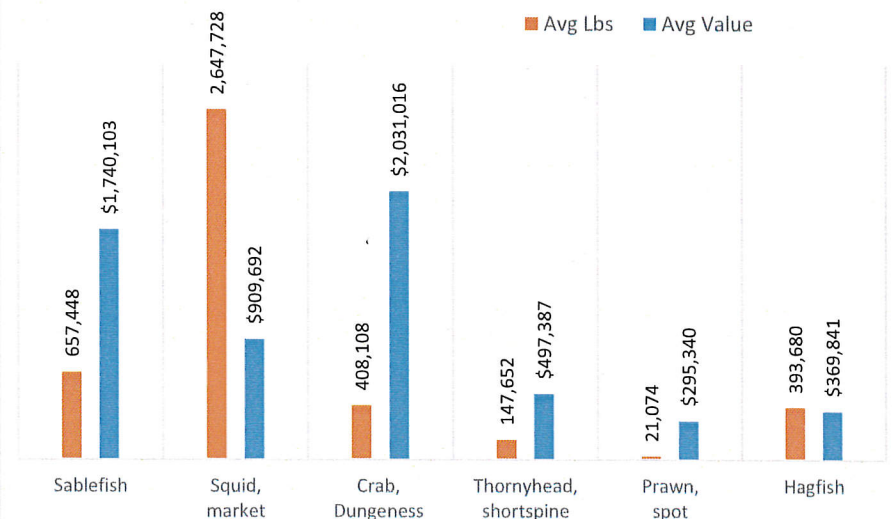
2 Seafood  
Processors

~4.3 million  
lbs landed  
annually  
(avg)

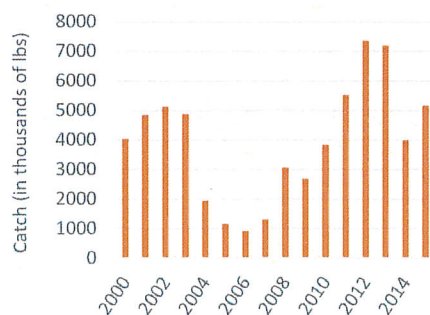
Morro Bay Area Total Catch and Value since 2000



Catch & Value of Top 6 Species (5 yr avg)



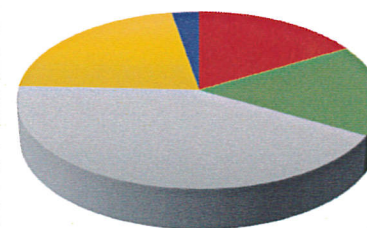
Catch Since 2000 (lbs)



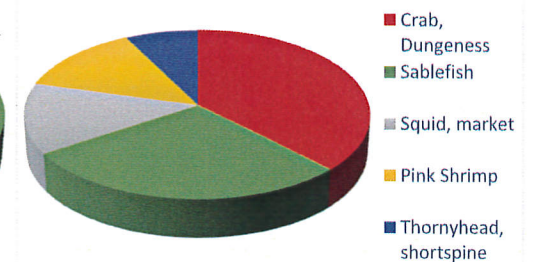
Value of Catch Since 2000 (\$)



2016 Top 5 Species - Lbs



2016 Top 5 Species - \$



\*All dollar amounts adjusted to 2016 values



# Santa Barbara Channel Area Fishing Community Profile

Includes Santa Barbara, Ventura, Channel Islands (Oxnard), Port Hueneme, Gaviota Beach, Guadalupe Beach ports

150-200  
Commercial  
Fishing  
Vessels

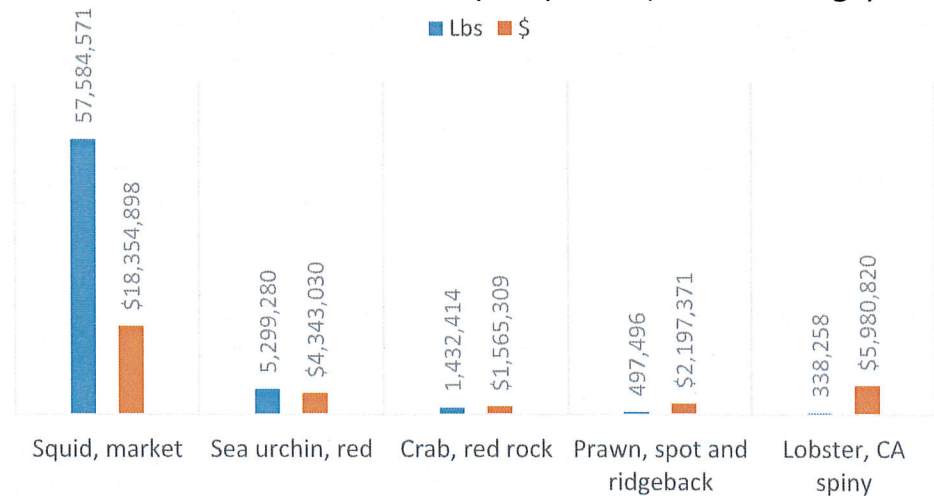
\$33 million  
average  
annual  
earnings

~90 million  
lbs average  
annual  
landings

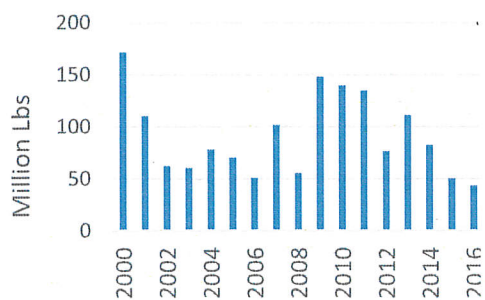
Santa Barbara Channel Area Total Catch and Value  
2000-2016



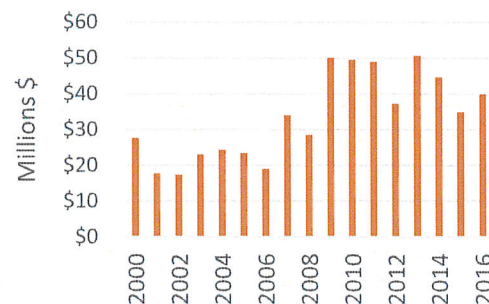
Catch and Value Of Top 6 Species (5 Year Average)



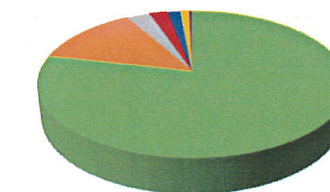
Catch Since 2000 (lbs)



Value of Catch Since 2000 (\$)

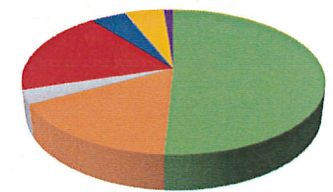


2016 Top 7 by Weight



Squid, market  
Crab, red rock  
Prawn, ridgeback  
Halibut

2016 Top 7 by Value



Sea urchin, red  
Mackerel, Pacific  
Lobster, California spiny

## Management Context for Select Fisheries in the Santa Barbara Channel Port Area<sup>1</sup>

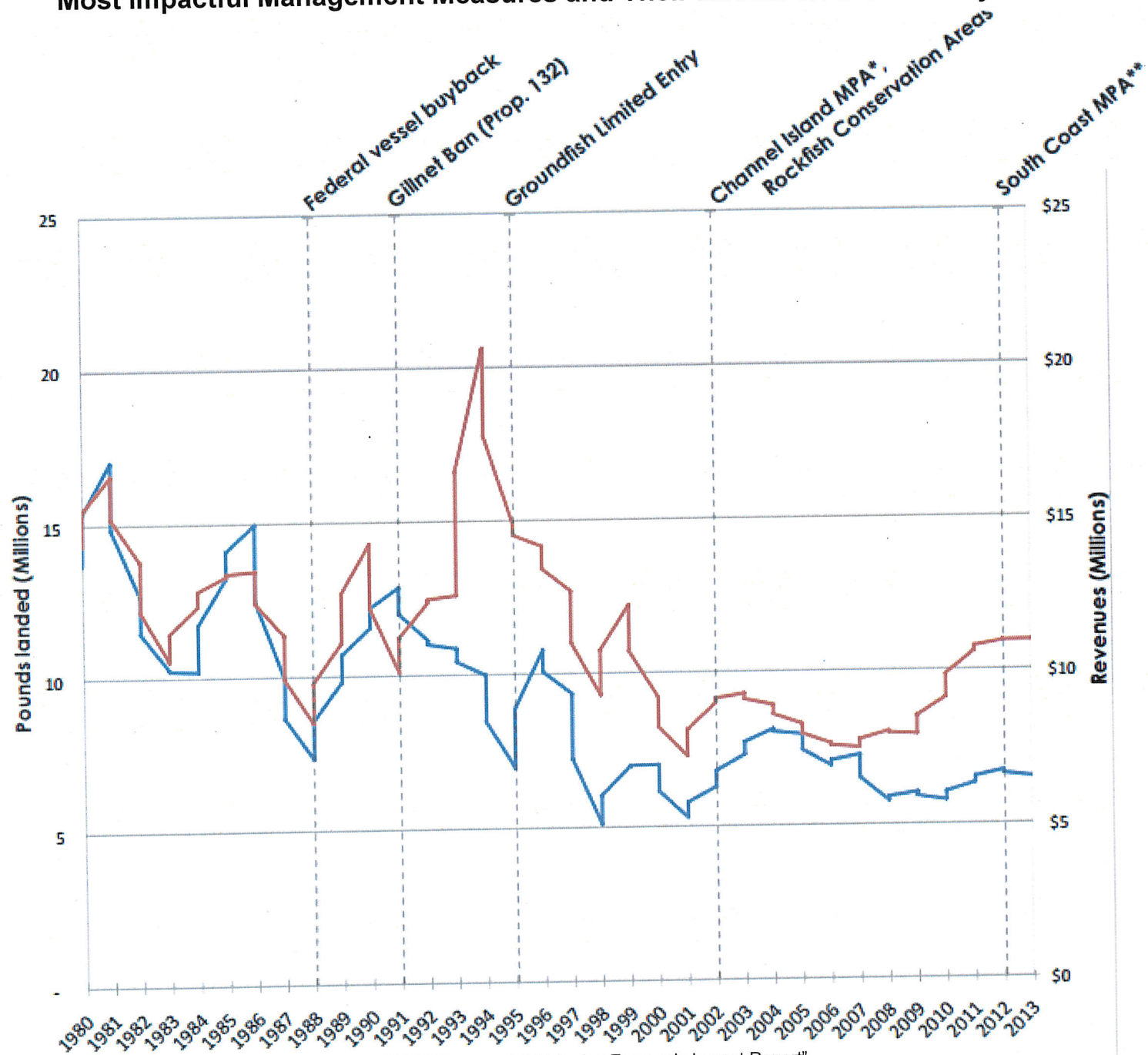
Fishery	Management Authority		Management Measures				
	State	Federal	Limited entry	Quotas	Time/area closures	Species size/sex rules	Gear restrictions
Blackcod (sablefish) hook-and-line, trap	✓	✓	✓	✓	✓	✓	✓
Coastal pelagic finfish seine	✓	✓	✓	✓	✓		✓
Market squid seine	✓		✓	✓	✓		✓
Red sea urchin dive	✓		✓		✓	✓	✓
Rock crab trap	✓		✓			✓	✓
Sea cucumber dive, trawl	✓		✓		✓		✓
Spiny lobster trap	✓		✓		✓	✓	✓
Spot prawn trap	✓		✓		✓		✓

Note: Management authority and /or measures may vary for a given fishery depending on species and/or gear type.

<sup>1</sup> Credit: California Sea Grant (<https://caseagrants.ucsd.edu/project/discover-california-commercial-fisheries/regions/santa-barbara-channel>)



## Most Impactful Management Measures and Their Effects on the Industry



Credit: Lisa Wise Consulting, CFSB "2014 Commercial Fisheries Economic Impact Report"