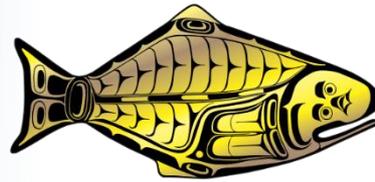


INTERNATIONAL PACIFIC



HALIBUT COMMISSION

# **Pacific halibut multiregional economic impact assessment (PHMEIA): summary of progress**

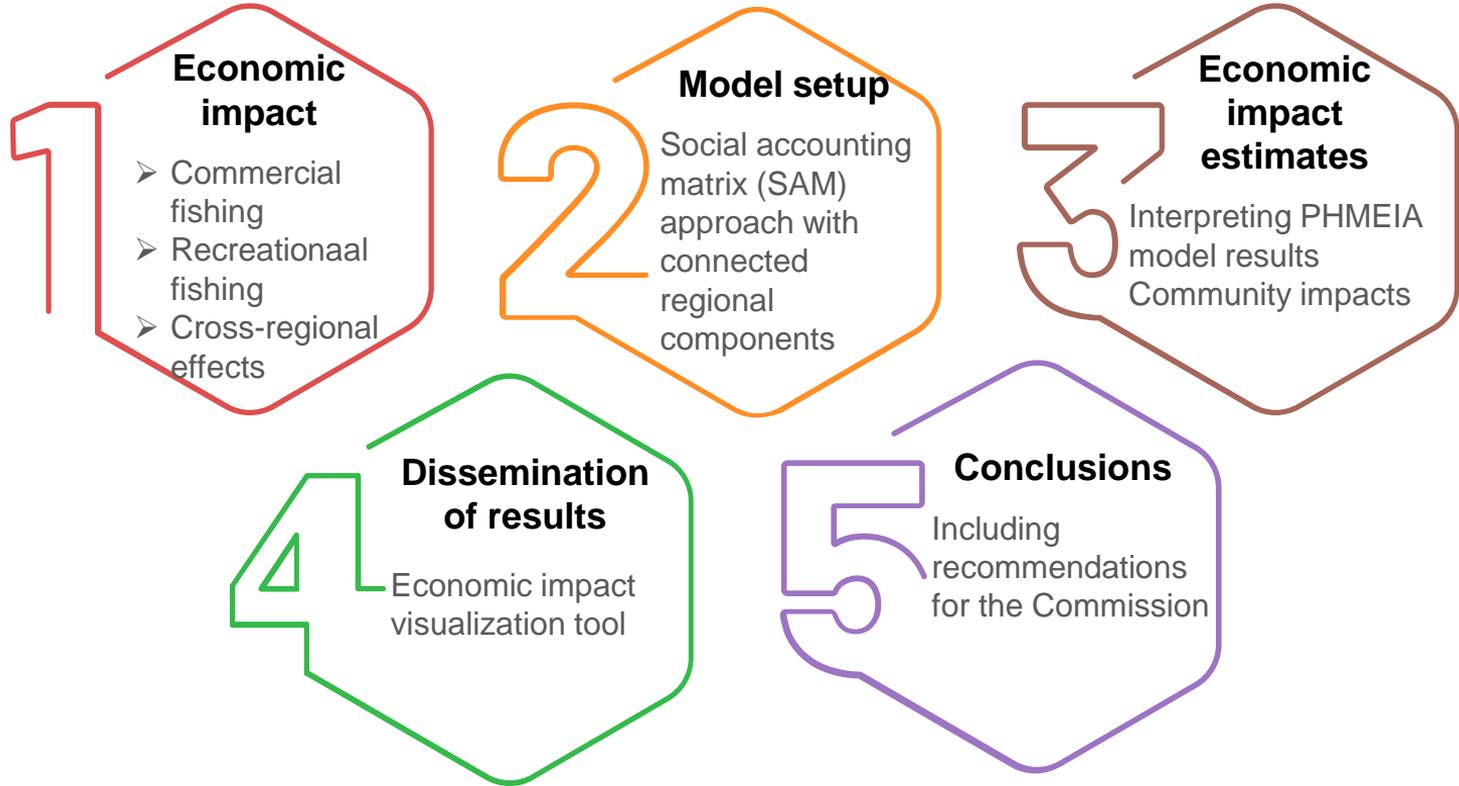
Agenda Item 9

IPHC-2021-IM097-14

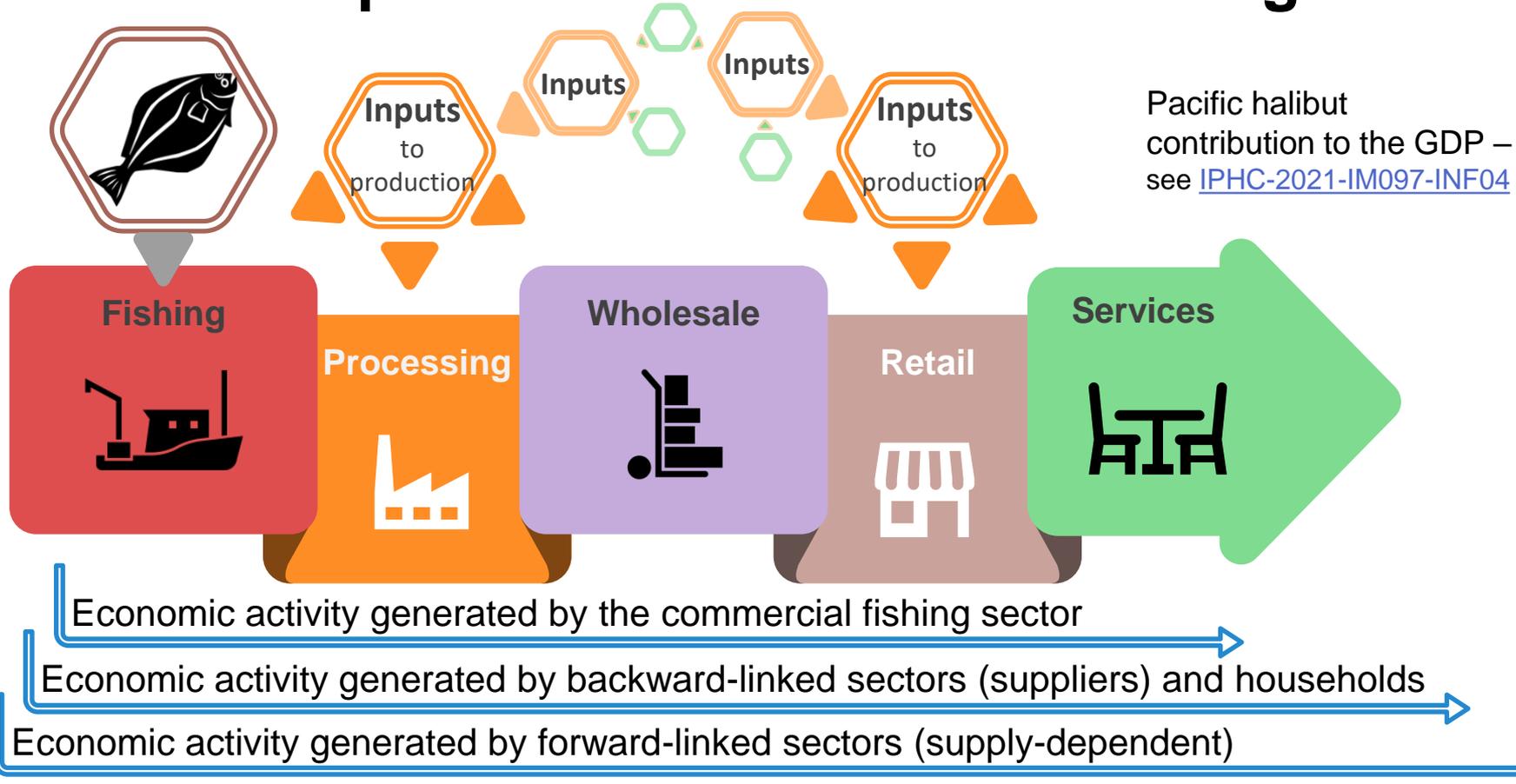
(B. Hutniczak)



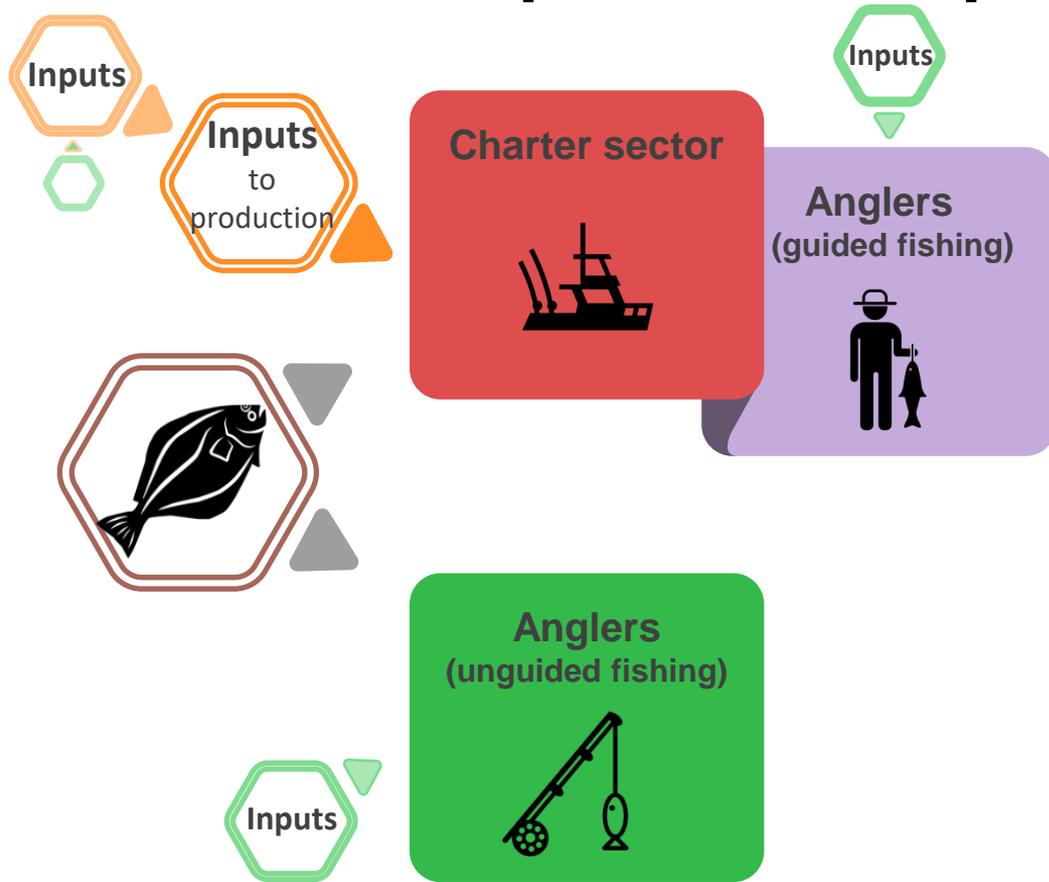
# Outline



# Economic impact of the commercial fishing sector



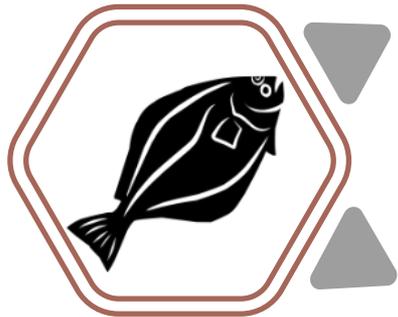
# Economic impact of the sport fishing sector



- Economic activity of businesses directly dependent on the access to the resource
- Economic activity generated by suppliers to the resource-dependent businesses
- Economic activity generated by supplying anglers (guided and unguided)
- Economic activity generated by households spending income dependent on recreational fishing (guided and unguided)



# Multiregional effects



**Economic impact in  
the area of resource  
extraction**



**Cross-regional  
impacts**



➤ Monetary flows related to inputs to production / import of inputs

➤ Monetary flows related to final consumption / export of services

➤ Wages earned by residents vs. non-residents

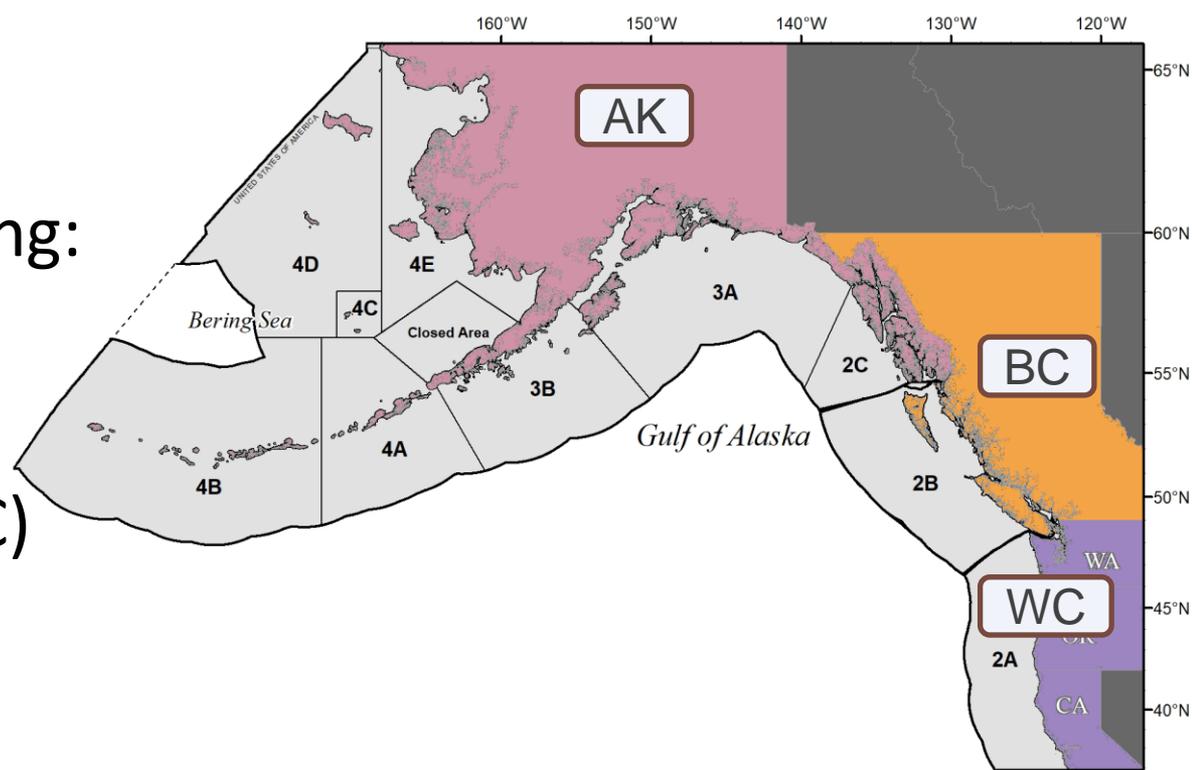
➤ Profit from ownership - residents vs. non-residents



# Regions

Pacific halibut producing:

- Alaska (AK)
- West Coast (WC)
- British Columbia (BC)
- Rest of the US (RUS)
- Rest of Canada (ROC)
- Rest of the world (ROW)\*

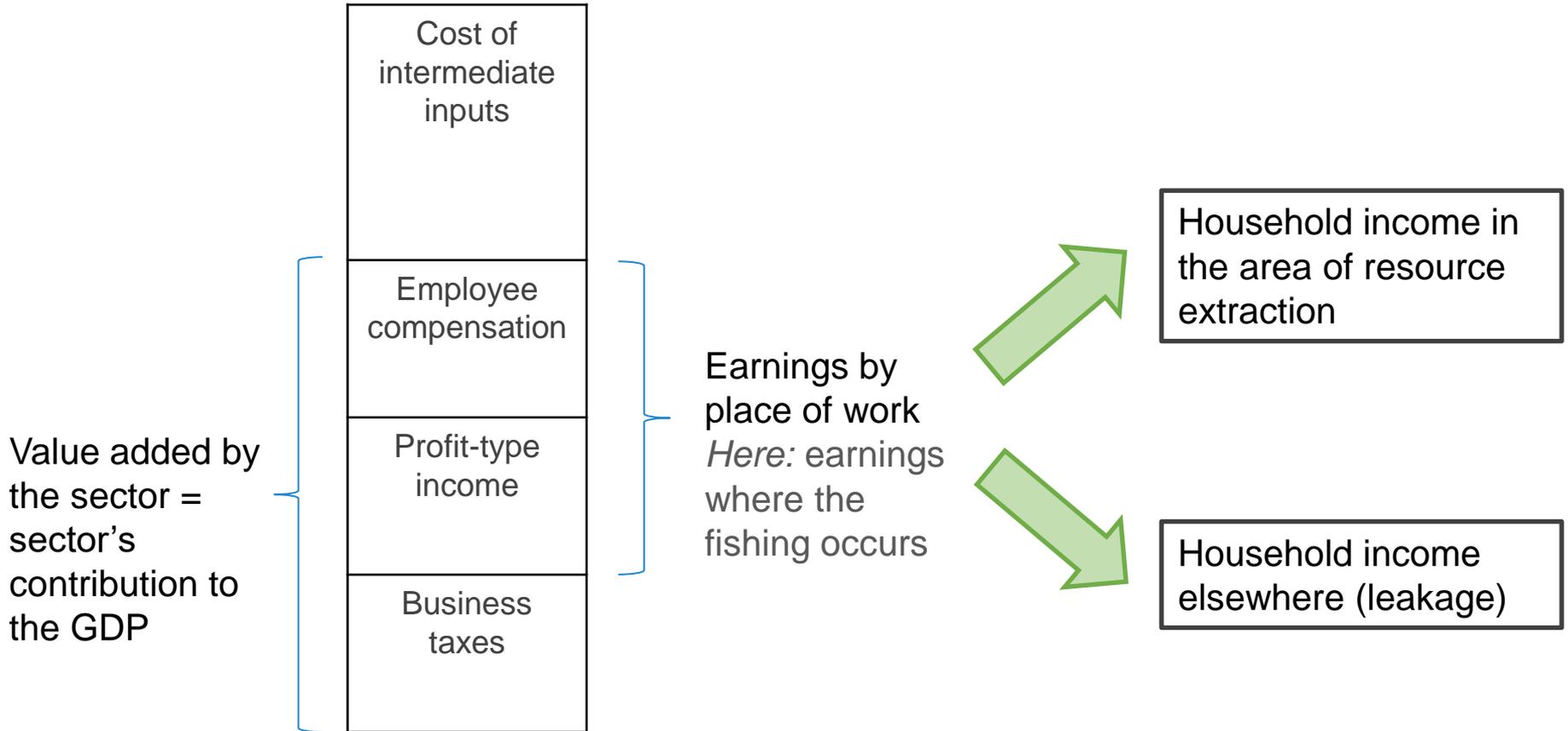


Multiregional social accounting matrix/SAM-based approach

\*treated as exogenous

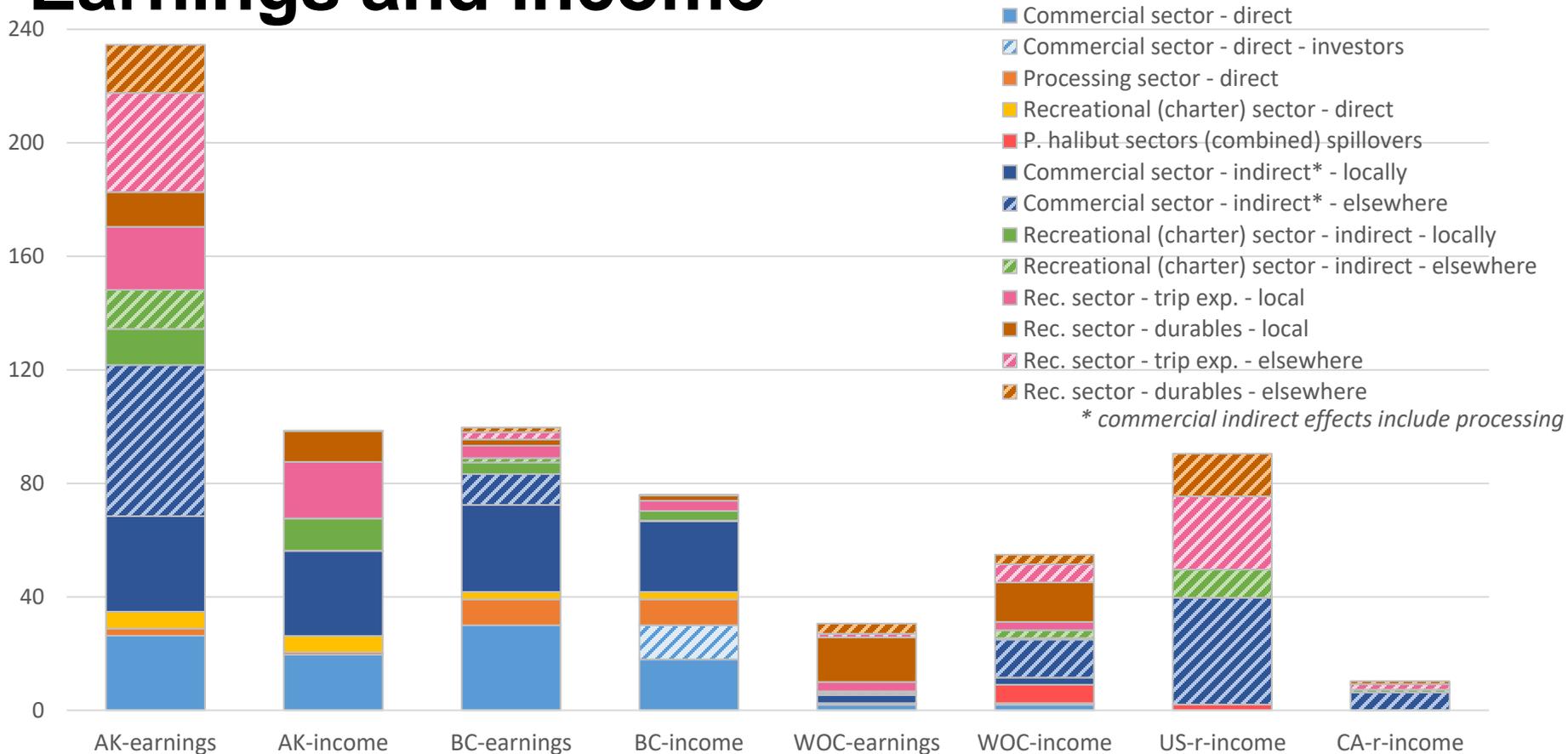


# Direct earnings & income



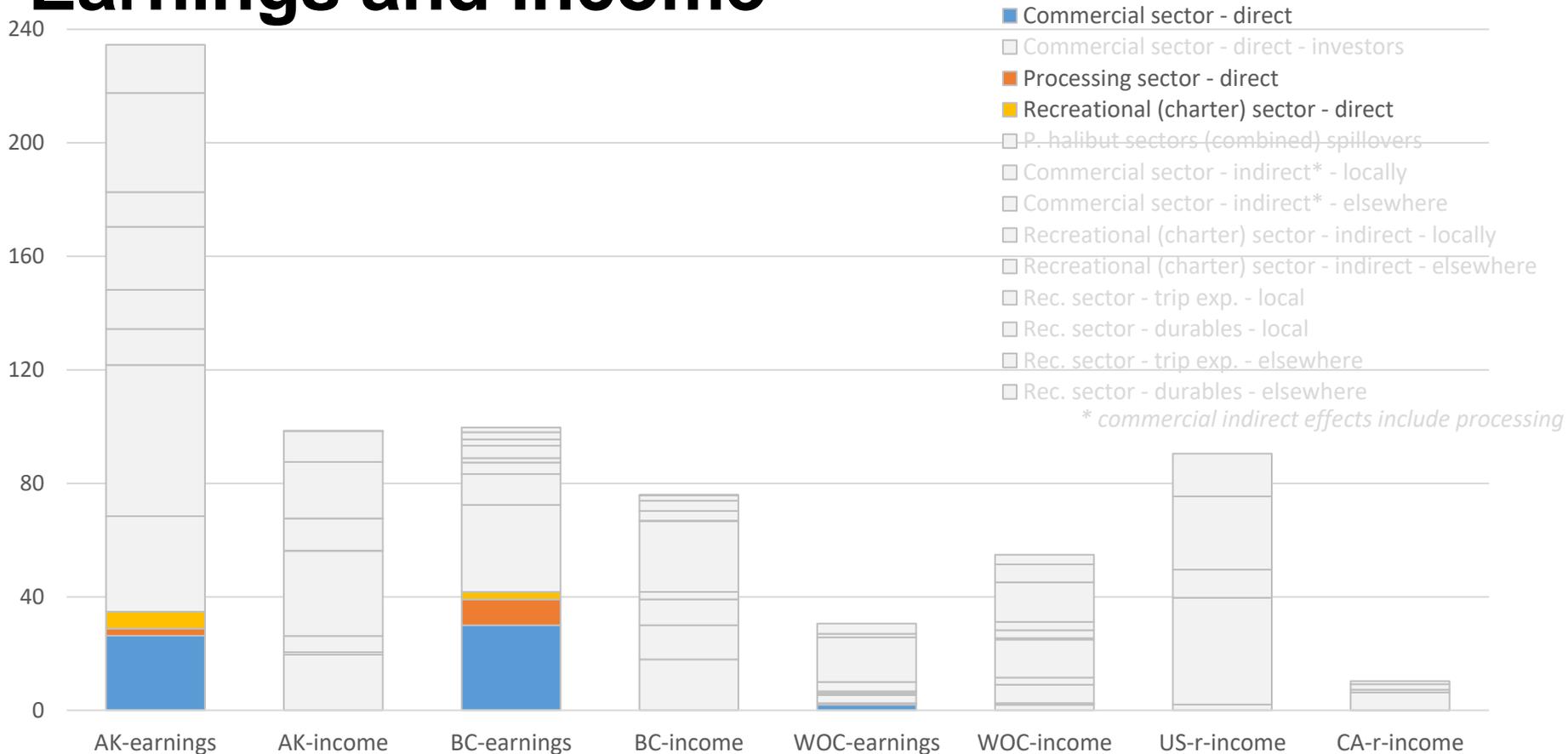
# Earnings and income

Earnings / income [2019/mil. USD]

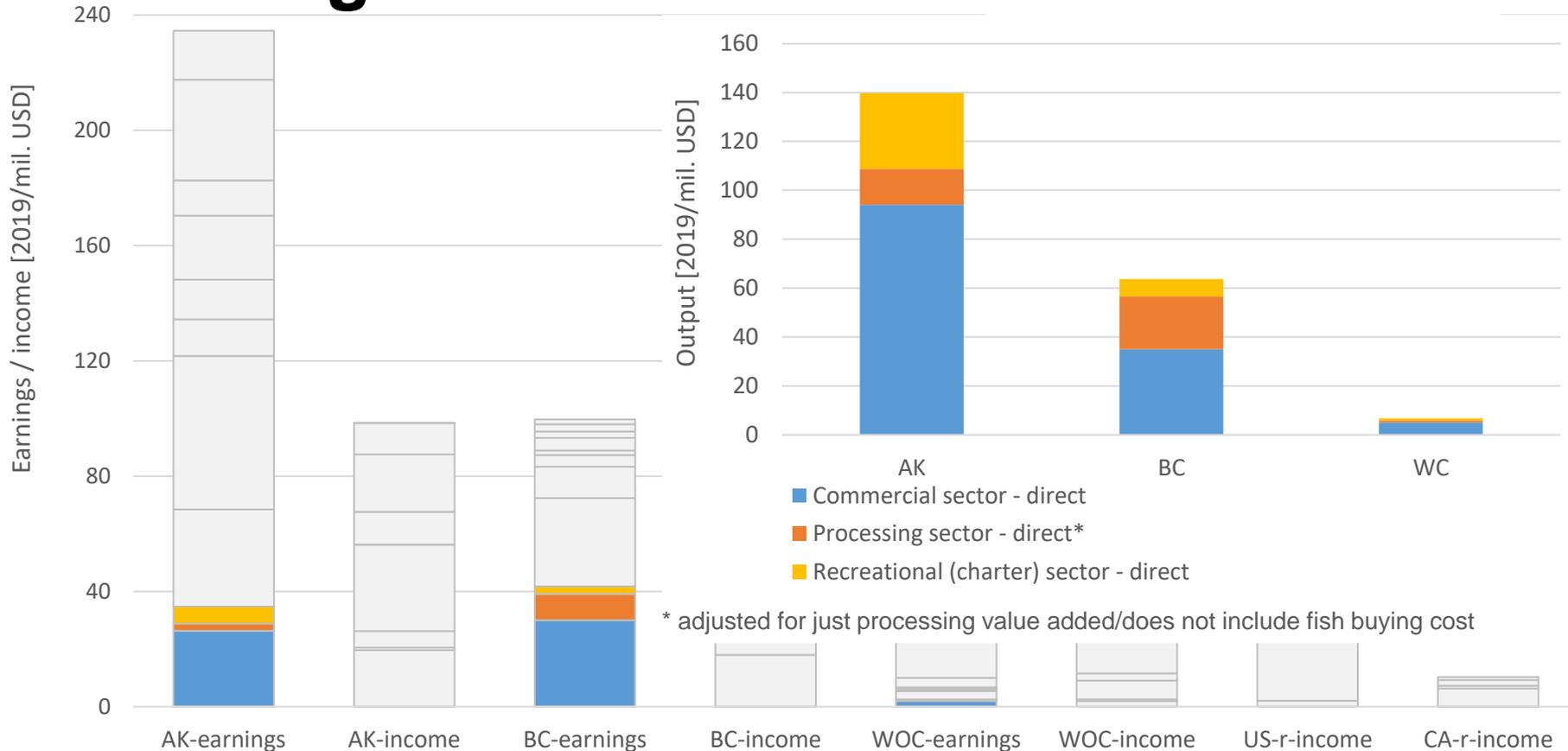


# Earnings and income

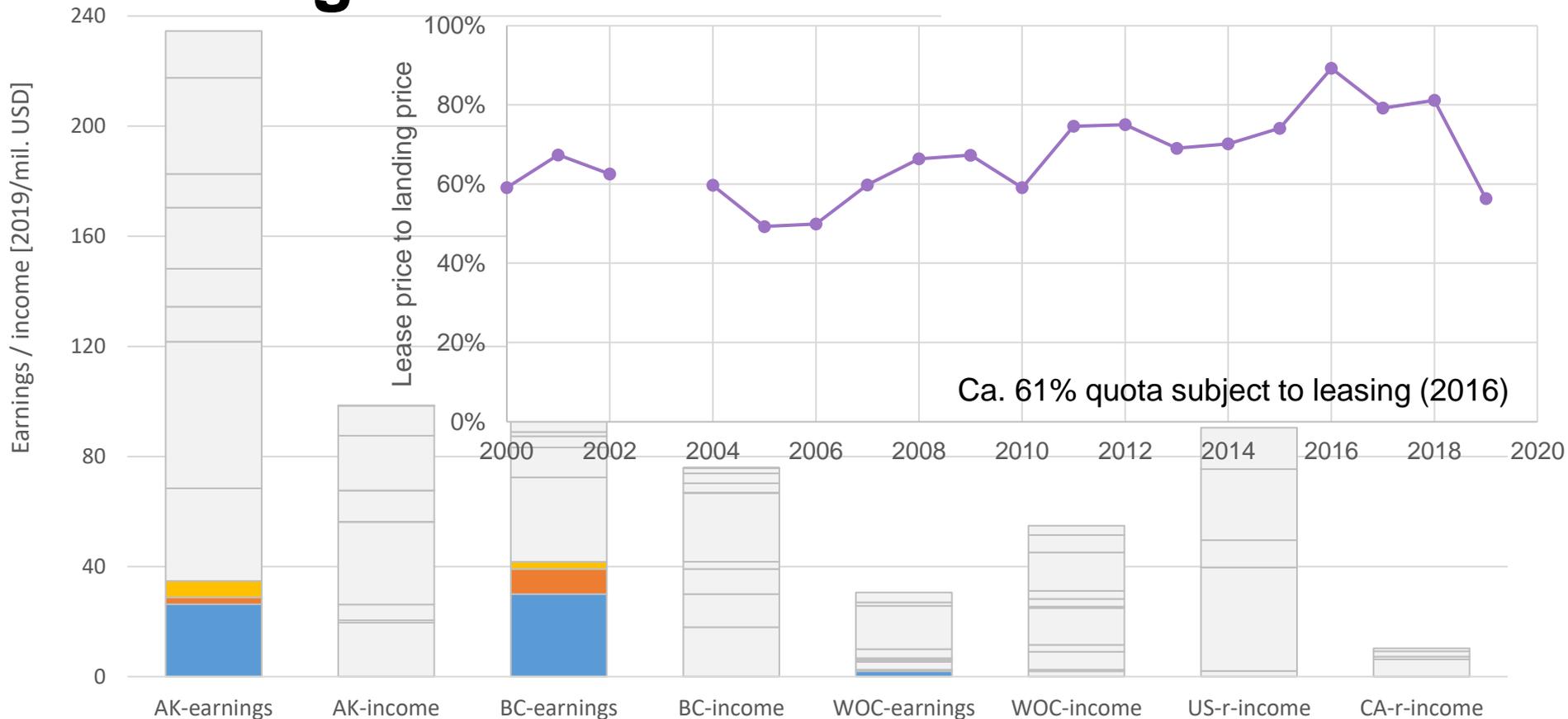
Earnings / income [2019/mil. USD]



# Earnings and income

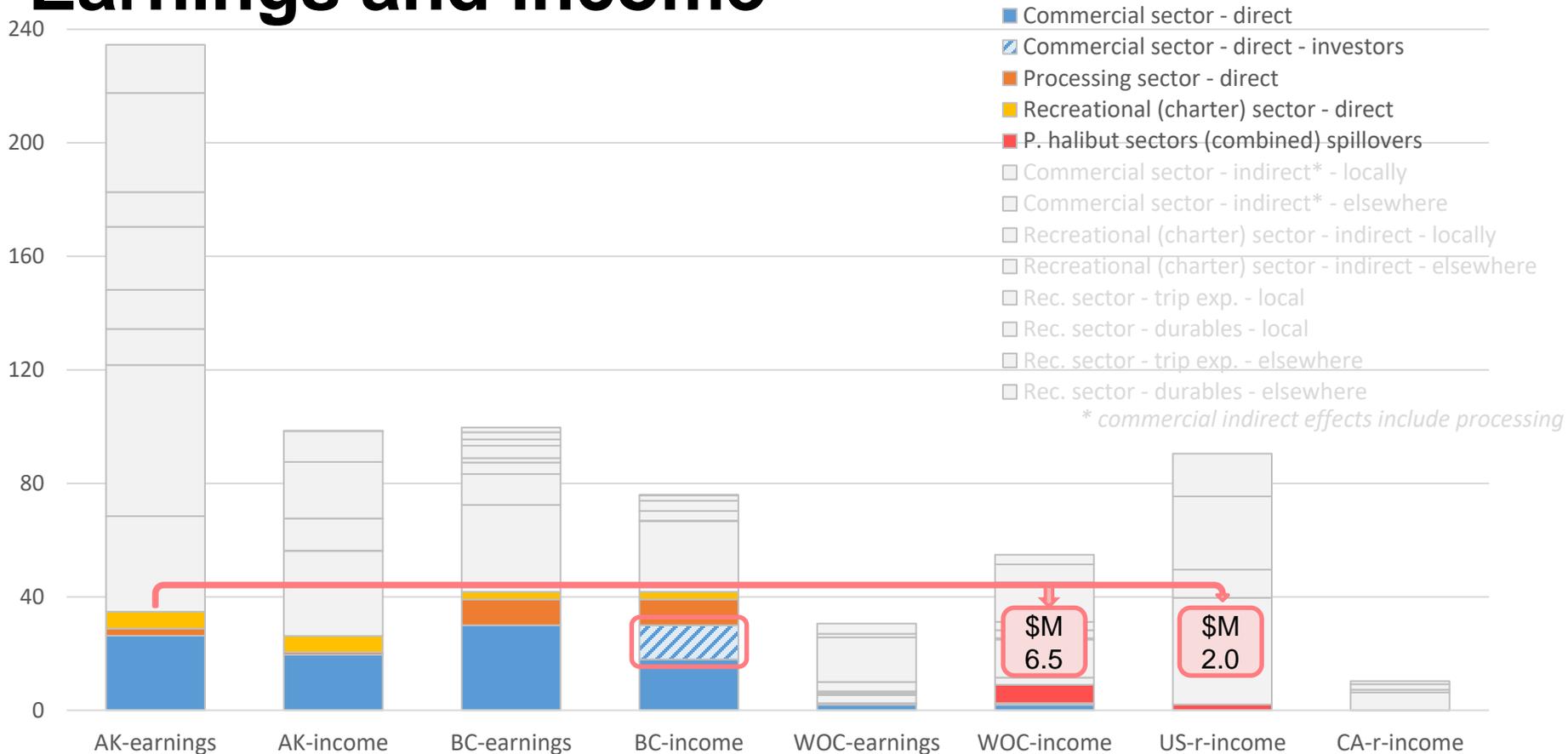


# Earnings and income



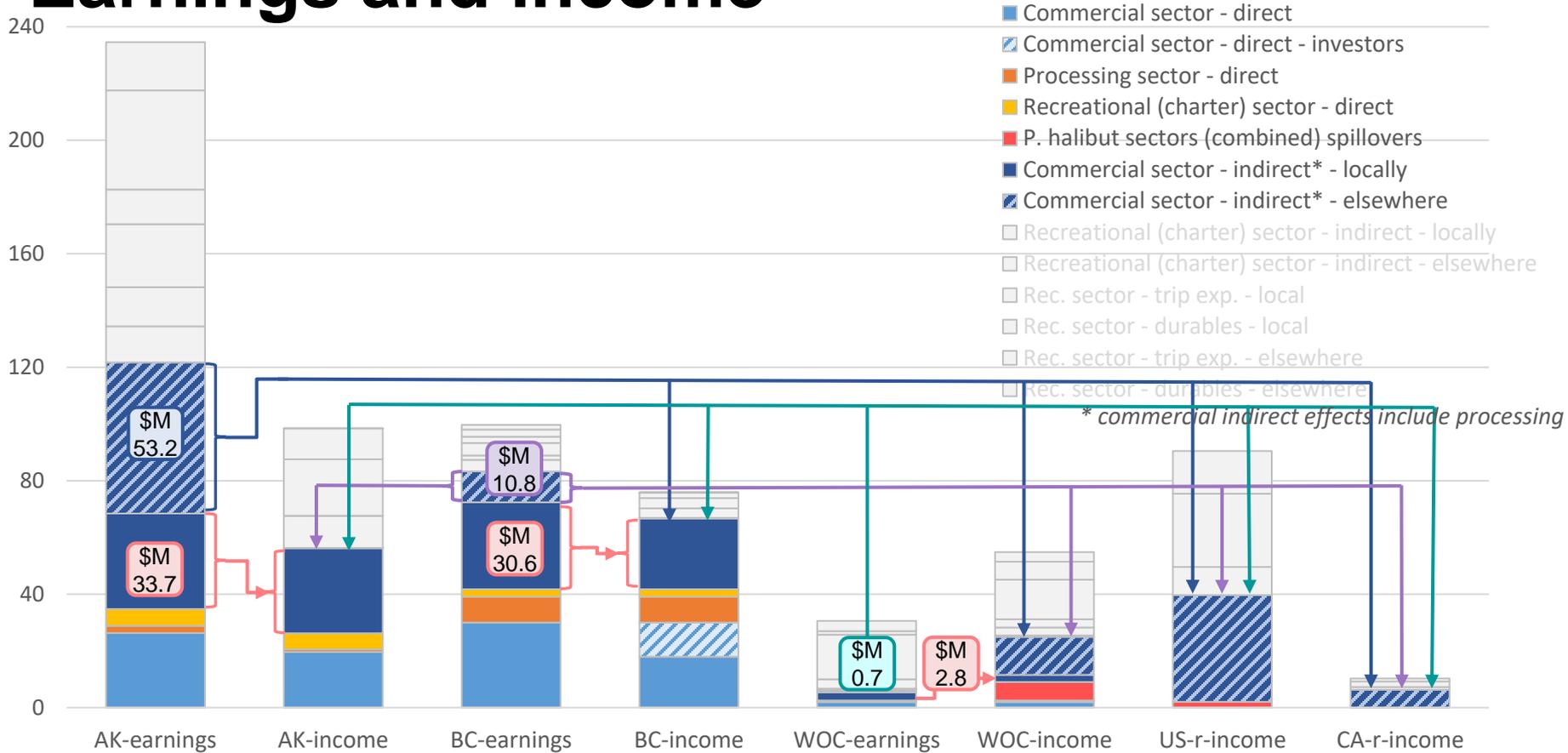
# Earnings and income

Earnings / income [2019/mil. USD]



# Earnings and income

Earnings / income [2019/mil. USD]



# Flows in the commercial sector – Quota ownership (Alaska)

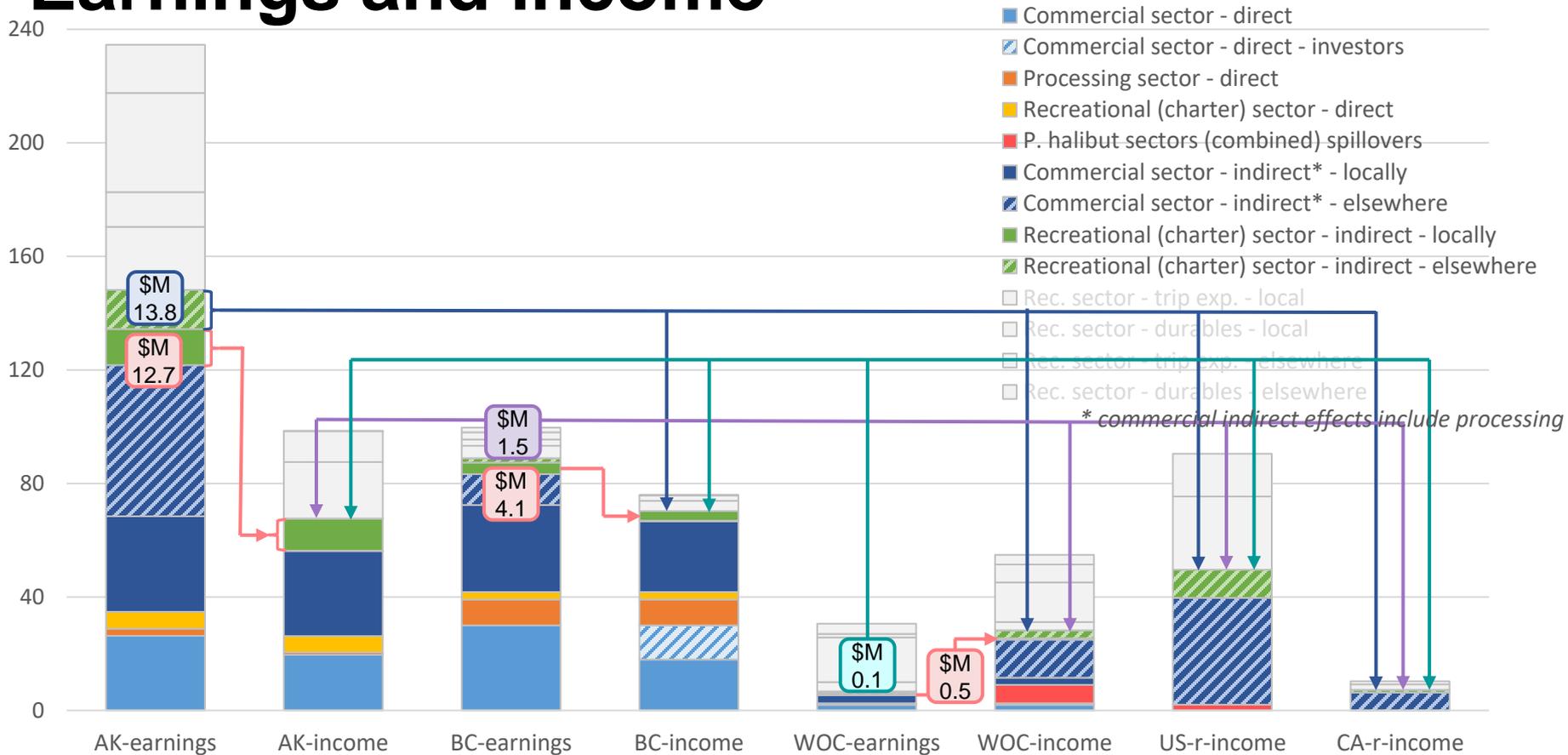
Owner's state of residence	% AK QS units
AK	62.2%
WA	25.1%
OR	7.1%
CA	1.5%
Rest of the USA	4.0%

(e.g., CO, ID, MN, NM, UT)

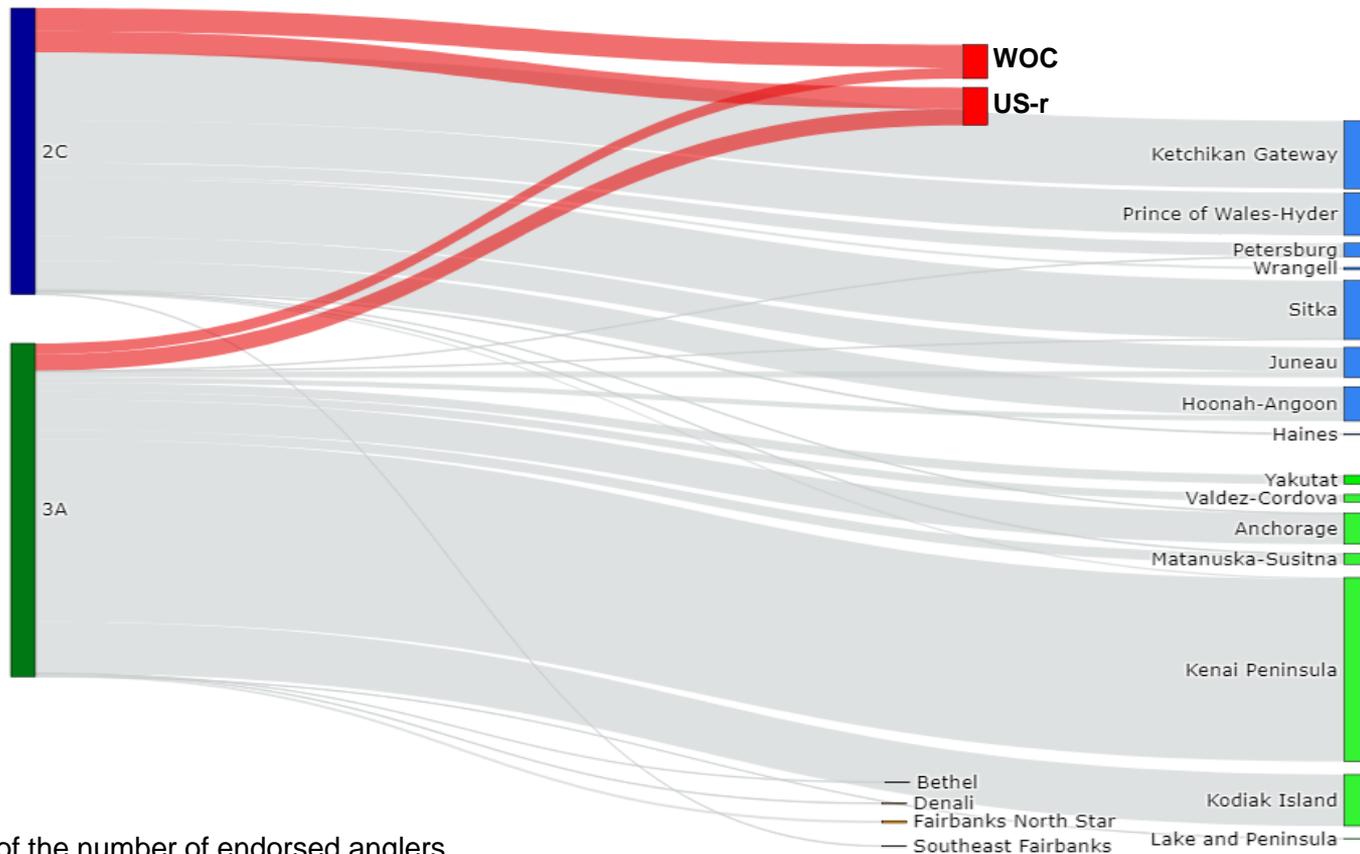


# Earnings and income

Earnings / income [2019/mil. USD]



# Flows in the charter sector - Alaska CHP

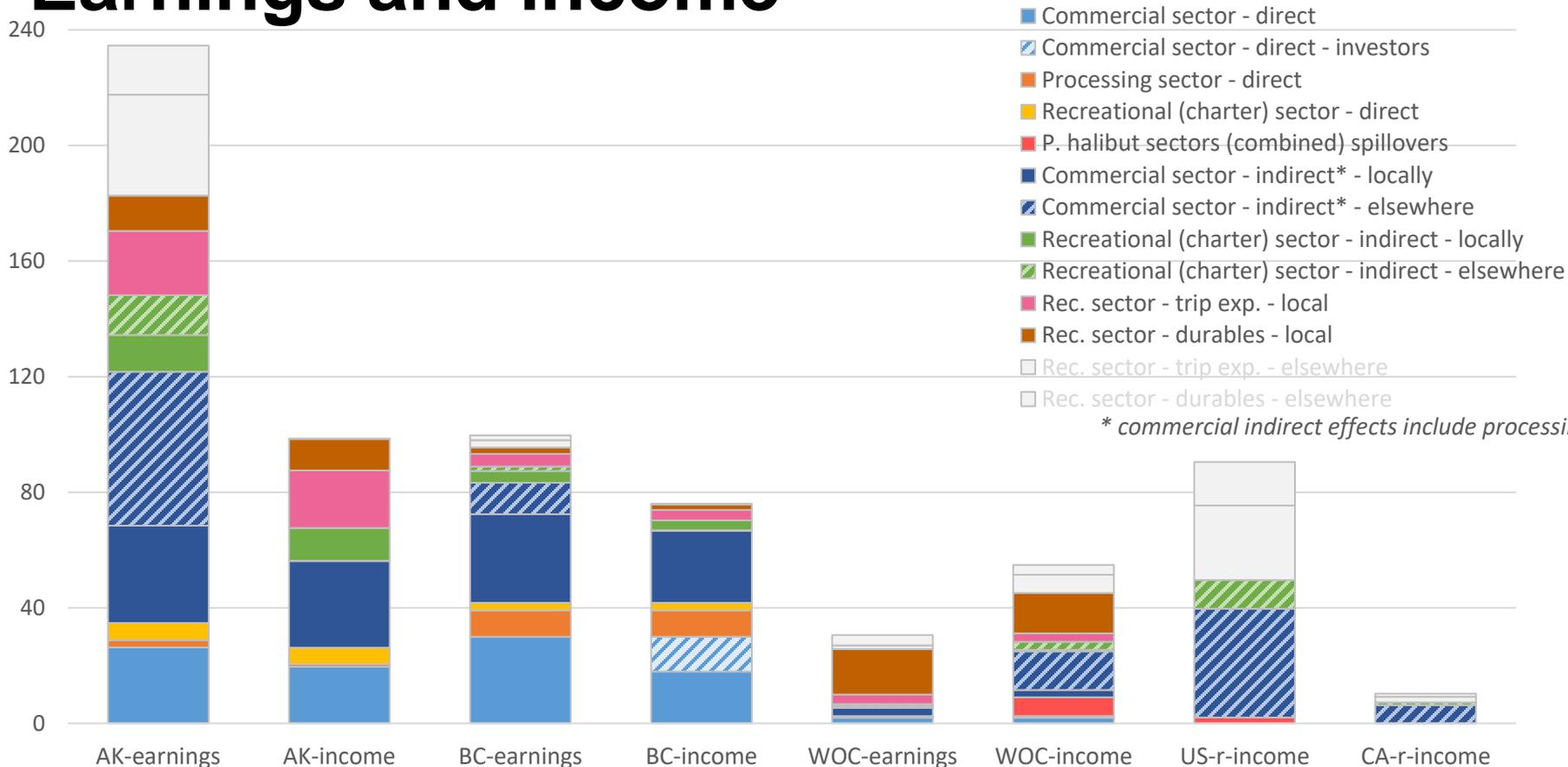


Flows in terms of the number of endorsed anglers



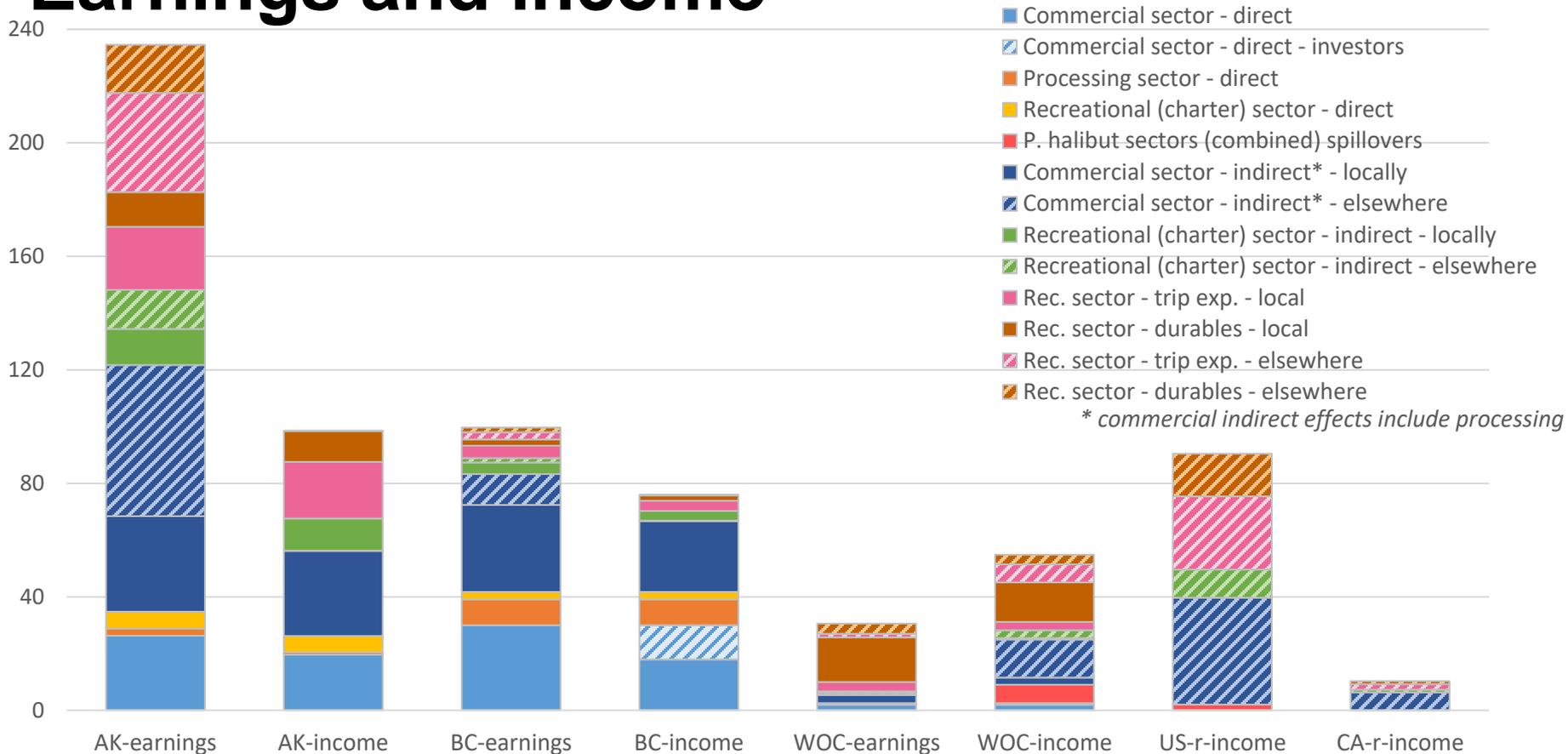
# Earnings and income

Earnings / income [2019/mil. USD]



# Earnings and income

Earnings / income [2019/mil. USD]



# Comparison of the results between sectors (2019)

For fishing in AK only	Unit	Commercial	Charter	Recreational
EI on households	Total in mil. USD	185.2	37.8	144.6
EI locally (excludes spillovers)	Total in mil. USD	119.3	23.9	76.9
EI on households	USD per 1 USD of landed value/USD spent	1.38	0.97	0.71
EI locally (excludes spillovers)	USD per 1 USD of landed value/USD spent	0.89	0.61	0.38
EI on households	USD per 1 lb of removals	7.6	10.4*	20.5
EI locally (excludes spillovers)	USD per 1 lb of removals	4.9	6.0*	10.9

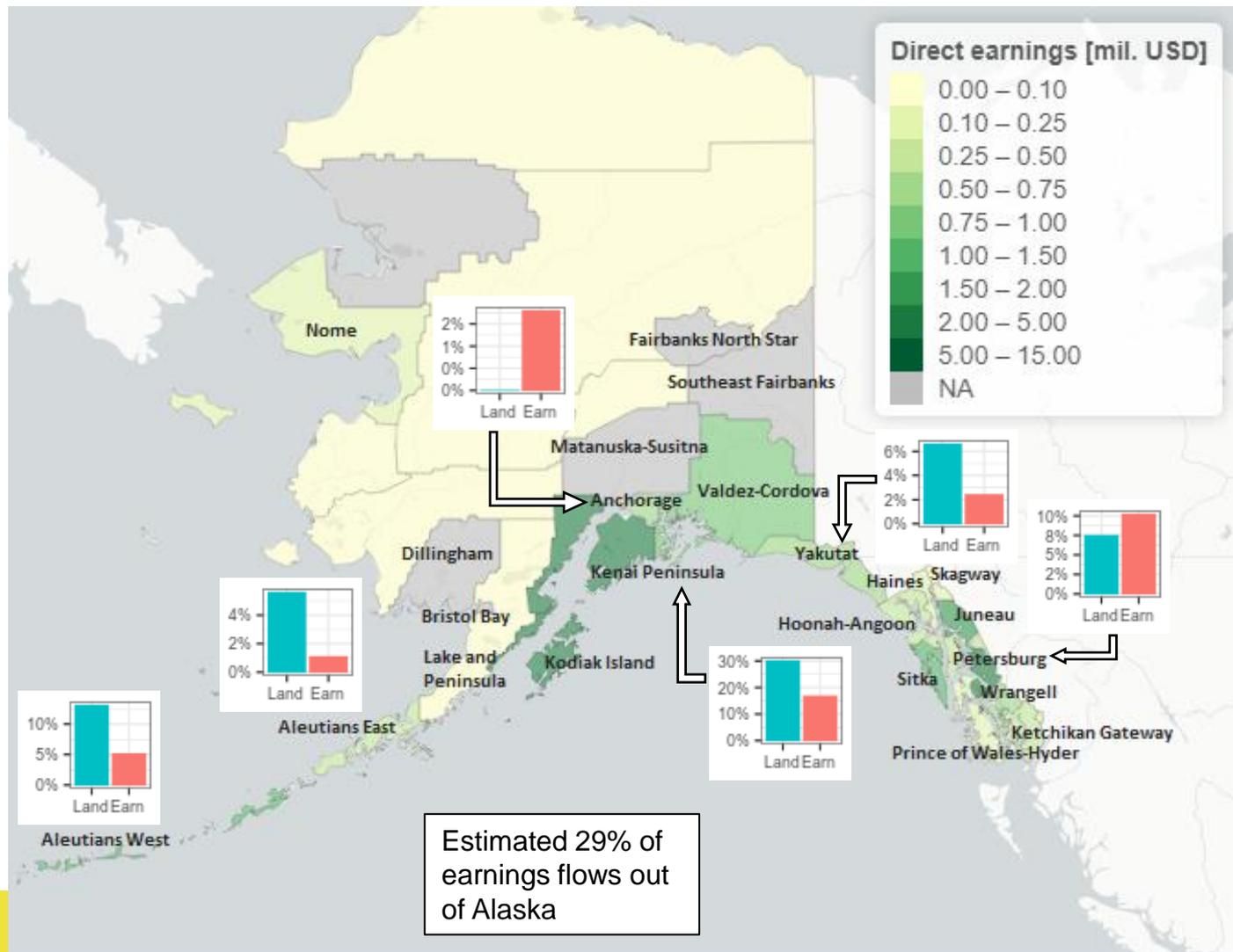
\*impact calculated based on EI on households for Alaska

Note sensitivity to assumption about the share of the sector dependent on Pacific halibut



# Community impacts

Bar plots represent selection of county-level comparison between the value of landings and direct earnings [as % of total, 2019]

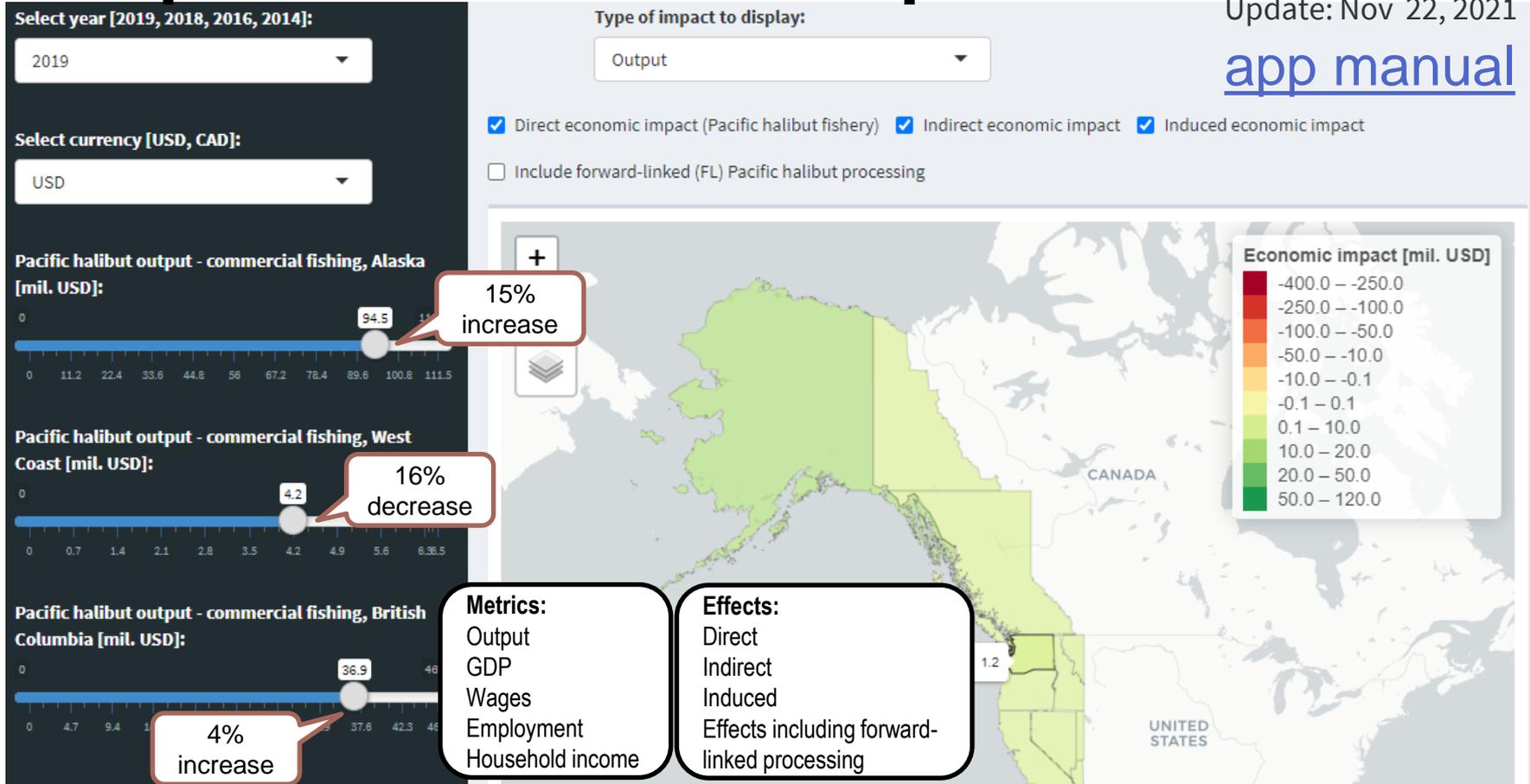


# Map of the economic impact

[web-based tool](#)

Update: Nov 22, 2021

[app manual](#)



# Conclusions

- PHMEIA provides a comprehensive understanding of a broad scope of impacts of the Pacific halibut resource
- Revenue generated by direct Pacific halibut sectors accounts for only a fraction of economic activity that would be forgone if the resource was not available to fishers
- Understanding the complex interactions between sectors and regions is particularly important to management of a resource that spans a wide geographical area
- PHMEIA informs on the vulnerability of communities to changes in the state of the Pacific halibut stock throughout its range, highlighting regions particularly dependent on economic activities that rely on Pacific halibut



# Way forward

- PHMEIA is a core product of the IPHC socioeconomic program that directly responds to the Commission's need for "more comprehensive economic information to support the overall management of the Pacific halibut resource in fulfillment of its mandate" (economic study terms of reference)
- PHMEIA contributes to a wholesome approach to Pacific halibut management that is optimal from both biological and socioeconomic perspective
- Tasks that would enhance the PHMEIA usability to the Commission and contribute to research integration at the IPHC are included in the *IPHC 5-year Program of Integrated Science and Research (2021-26)*



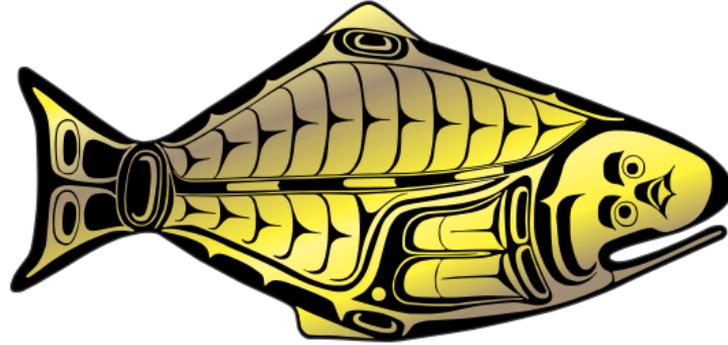
# Recommendations

That the Commission:

- a) **NOTE** paper IPHC-2021-IM097-14 which provides an update on the development of the Pacific Halibut Multiregional Economic Impact Assessment (PHMEIA).



**INTERNATIONAL PACIFIC**



**HALIBUT COMMISSION**

