
**National Marine Fisheries Service
Alaska Fisheries Science Center/
Alaska Regional Office**

Regional Impact Analysis User Manual

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User Manual for the Regional Impact Analysis Web Application

The Regional Impact Analysis web application was developed to assist economists and social scientists working with Alaska fisheries in estimating the economic impacts of changes in fishery policies. This web-based application runs a 10 region Multi-Regional Social Accounting Matrix (10MRSAM) model. This manual (i) briefly describes the model used (10MRSAM model), (ii) outlines the regions and sectors used in the model, (iii) describes three different versions of the model (gear-based, species-based, and charter-based), (iv) provides useful resources that will be helpful in understanding the model, and (v) gives an overview of the web application.

Multiregional Social Accounting Matrix (MRSAM) Model Introduction

Input-output (IO) models are a fundamental tool for regional economic impact analysis, and calculate the total economic impacts of a change in the final demand. Although IO models are useful, the models cannot evaluate the distributional impacts (on value added, household income, and regional government revenue). Social accounting matrix (SAM) models are an extension of IO models, and overcome this limitation of IO models by evaluating the distributional impacts of policy changes. For Alaska fisheries, a number of SAM models have been developed. These SAM models include single-region and multi-region models. Although useful in some respects, single-region SAM models have the weakness of calculating the economic impacts of a certain policy for the study region only, and may miss a large fraction of the economic impacts that occur in the regions with strong economic ties with the first region. To address the inter-regional effects, multi-regional SAM (MRSAM) models have also been developed. Previously, a 3 region MRSAM model was developed with the three regions being Alaska, West Coast, and rest of the U.S. Although this model is an advancement, it cannot address the borough-level or “community-level” economic impacts of a fishery management policy because the geographic unit is too large (i.e., state). To overcome this weakness, AFSC developed a 10 region MRSAM (10MRSAM) model for Southwest Alaska (SWAK) fisheries. Subsequently, AFSC and AKRO economists have developed a web-based software based on this model.

This user manual is for those who use this software. This software is intended to provide socioeconomic analysts with a tool that can be used to evaluate how Alaska fishery policy actions or other exogenous (environmental or market) shocks will affect the economies of the ten regions. The model will map exogenous shocks through economic pathways to estimate regional economic impacts on industry output (sales), value-added, household income, employment, and the combined state and local government revenue.

Readers are referred to Seung et al. (2020) and Seung and Miller (2022) and a number of previous studies listed in References and Recommended Reading List section below for understanding SAM and MRSAM models.

Regions and Sectors in the 10MRSAM Model

The 10 regions in 10MRSAM model include an at-sea “region” (AT-SEA), six SWAK boroughs and census areas (BCAs), the rest of Alaska (RAK), U.S. West Coast (WOC, Washington, Oregon, and California), and rest of the U.S. (RUS). The six SWAK BCAs are as follows: Aleutians West Census Area (AWCA – including Atka, Unalaska and Dutch Harbor), Aleutians East Borough (AEB – including Akutan, King Cove and Sand Point), Lake and Peninsula Borough (LPB – including Chignik, Ugashik and Egegik), Bristol Bay Borough (BBB - Naknek), Dillingham Census Area (DCA – including Dillingham and Togiak), and Kodiak Island Borough (KIB). (Figure 1)

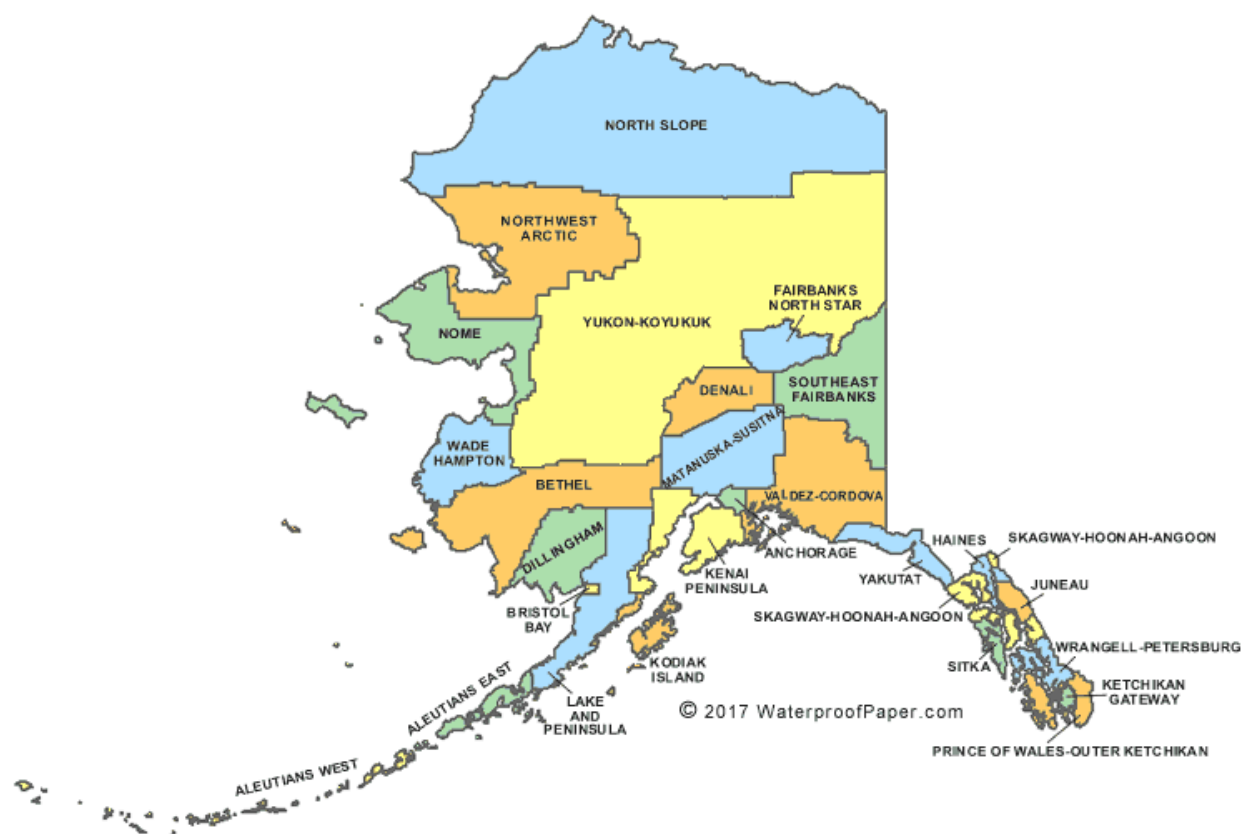


Figure 1 Map of Alaska boroughs and census areas

We developed three different versions of the 10MRSAM model – (i) a gear-based fishery industries version (GB), (ii) a species-based industries version (SB), and (iii) charter-based (CB) model. The first two versions (GB and SB) are intended for analysis of commercial fisheries while the third one (CB) is for analysis of charter sector.

The final 10MRSAM has a total of up to 466 endogenous accounts (or sectors) in the GB [34 in the At-sea region + 53 in each of 6 SWAK BCAs + 38 in each of 3 non-SWAK BCA regions]; and 574 endogenous accounts in the SB and CB [52 in the At-sea region + 68 in each of 6 SWAK BCAs + 38 in each of 3 non-SWAK BCA regions]. All three MRSAM versions include four overall exogenous accounts [savings-investment, federal government revenue and spending, foreign trade (imports and exports), and trade-balancing financial flows].

Sectors in the SWAK BCAs

There are six fish harvesting sectors in the GB identified depending on the type of fishing vessels and species delivered to SWAK shore-based processors. These sectors include Trawl, Hook and Line, Groundfish Pot, Salmon Gillnet, Crabbers, and Other Gear. We assigned fish harvesting vessels to a fish harvesting industry sector based on the gear type responsible for the largest share of each vessel's ex-vessel revenue. Each fish harvesting sector or industry produces (catches) up to eleven relevant aggregated species "commodities." The eleven species or commodities are: 1. Tanner Crab (tanner crab and snow crab), 2. King Crab (mostly Bristol Bay red king crab but also includes brown king crab and blue king crab), 3. Other Crab (mostly Dungeness crab), 4. Pacific cod, 5. Pollock, 6. Sablefish, 7. Rockfish, 8. Flatfish, 9. Salmon, 10. Halibut, and 11. All other species combined (in the base year of 2014 this was mostly herring).

The endogenous accounts in the GB include up to 19 industries, 24 commodities, six value-added accounts (fisheries labor income, non-fisheries labor income, fisheries proprietors' income, non-fisheries proprietors' income, other property income, and indirect business taxes), three household accounts (low-, medium-, and high-income households), and a combined state and local government account in each of the six SWAK BCA regions. The industry accounts include up to seven seafood-related sectors (6 harvesting industries and 1 processing industry) and 12 other aggregated industries. Commodity accounts include up to 11 fish species, one processed seafood commodity, and 12 aggregated non-seafood commodities. In the GB MRSAM, there are six fish harvesting industries (as defined above) and a single shoreside processing industry in each SWAK BCA. Each of these fish harvesting industries "produces" (catches) some or all of the 11 different fish species. These species are processed in the shoreside processing industry in each SWAK BCA.

Eleven fish harvesting industries are enumerated in the SB, each of which is dedicated to harvesting a single fish type. For example, the pollock harvesting industry catches only pollock. There is also a unique, shore-based processing sector dedicated to processing each of the 11 fish species, resulting in up to 11 total seafood processing sectors in each SWAK BCA. Up to 34 industries and 24 commodities are included as endogenous accounts in each SWAK BCA region in the SB. Industries include up to 22 seafood industries (i.e., the 11 harvesting industries and 11 processing industries) and 12 aggregated non-seafood industries. Commodity accounts include up to 11 raw fish species, one processed seafood commodity, and 12 aggregated non-seafood commodities. The other endogenous accounts (six value-added accounts, three household accounts, and a combined state and local government account) are the same as in the GB.

Sectors in the Non-SWAK Regions

The 38 endogenous accounts comprising each of the three non-SWAK regions are the same in both the GB and the SB. Each non-SWAK region has 14 industries and 14 commodities. The 14 industries include two seafood industries (one harvesting industry and one processing industry) and 12 aggregated non-seafood industries. The 14 commodities include one raw fish commodity, one processed seafood, and 12 non-seafood commodities. The other endogenous accounts in non-SWAK regions are defined the same as those for each SWAK BCA region in the two MRSAM versions (i.e., six value-added accounts, three household accounts, and a combined state and local government account).

Sectors in the At-sea Region

The At-sea sector "region" consists only of activities associated with fishing and processing by catcher-processors (CP), mothership processors (MS), and catcher vessels delivering to motherships

operating in Bering Sea, Aleutian Islands, and Western GOA. All industry inputs, including factors of production, are imported from other regions in the MRSAM. There are only four industry accounts in the GB At-sea sector (Catcher Processor harvesting, Catcher Processor processing, Mothership processing and catcher vessels delivering to Motherships). All seafood products produced by the CP processing and MS processing sectors are assumed exported to RUS and ROW regions. Other endogenous accounts in the At-sea sector region in the GB include 16 non-zero commodities (six non-zero fish species, one processed seafood commodity, and nine non-zero non-seafood commodities), and three non-zero value-added accounts (fisheries labor income, fisheries proprietors' income, and indirect business taxes).

In the SB, endogenous accounts comprising the At-sea sector region include six non-zero industries (i.e., one for each fish species category caught), 14 non-zero commodities (six non-zero fish species, one processed seafood commodity, and seven non-zero non-seafood commodities), and three non-zero value-added accounts (fisheries labor income, fisheries proprietors' income, and indirect business taxes).

Since all value-added generated by the At-sea sector industries is transferred to other regions in the MRSAM, there are no endogenous household or state and local government institutional accounts in the At-sea region in either version of the MRSAM. Similarly, there are no non-fisheries-related value-added accounts such as other labor income, other proprietors' income or other property income. For more details on the data methods used for, and the regions and sectors in, 10MRSAM model, see Seung et al. (2020) and Seung and Miller (2022).

Caveats

The 10MRSAM model has several limitations. First, the model captures expenditure patterns for the base year (2014) for which the data set was created. Therefore, users may have to rely on GDP deflator adjustments to estimate impacts in subsequent years. Second, the model uses a fixed commodity input structure based on that present in the base year. Therefore, the analyst must be cognizant that major changes in fishery structure within a fishing sector would necessarily alter expenditure patterns in the present time frame and the model output must be interpreted with care in such cases.

Regional Economic Modeling Resources

It is expected that analysts that use this tool will first familiarize themselves with pertinent literature (see recommended reading list below). However, one does not need to be an expert in the development of regional economic models to use this tool. Several examples are provided here showing real case scenarios as they may be applied in the model application, along with some of the model output one would generate. It is also recommended that analysts confer with either Scott Miller, an economist at the Alaska Regional Office of the National Marine Fisheries Service, or Dr. Chang Seung, an economist at the Alaska Fisheries Science Center for assistance with developing impact scenarios appropriate to the policy issue or exogenous shock in question as well as with assistance in using the model and interpreting model output.

References and Recommended Reading List

The following resources from the literature are recommended reading to help analysts utilize this tool:

Holland, D. and P. Wyeth. 1993. SAM multipliers: their decomposition, interpretation, and relationship to input-output multipliers. Research Bulletin XB 1027. College of Agricultural and Home Economics Research Center, Washington State University.

King, B. 1985. What Is a SAM? Pages 17-51 in Pyatt, G. and J. Round. eds. Social Accounting Matrices: a Basis for Planning, The World Bank.

Seung, C., and E. Waters. 2005. A Review of Regional Economic Models for Alaska Fisheries. Alaska Fisheries Science Center Processed Report 2005-01.
<https://www.afsc.noaa.gov/Publications/ProcRpt/PR%202005-01.pdf>

Seung, C. and E. Waters. 2006a. The Role of the Alaska Seafood Industry: A Social Accounting Matrix (SAM) Model Approach to Economic Base Analysis. The Annals of Regional Science, Vol. 40, No. 2, pp. 335-350.

Seung, C. and E. Waters. 2006b. A Review of Regional Economic Models for Fisheries Management in the U.S. Marine Resource Economics, Vol. 21, No. 1, pp. 101-124.

Seung, C. and E. Waters. 2009. Measuring the Economic Linkage of Alaska Fisheries: A Supply-Driven Social Accounting Matrix (SDSAM) Approach. Fisheries Research, Vol. 97, pp. 17-23.

Seung, C., and E. Waters. 2013. Calculating impacts of exogenous output changes: Application of a Social Accounting Matrix (SAM) model to Alaska fisheries. The Annals Regional Science 51 (2): 553-573.

Seung, C. 2014. Estimating effects of exogenous output changes: An application of multi-regional social accounting matrix (MRSAM) method to natural resource management. Regional Science Policy and Practice 6(2): 177-193.

Seung, C., 2017. A Multi-regional economic impact analysis of Alaska salmon fishery failures. Ecological Economics 138, 22-30.

Seung, C. and S. Miller. 2018. Regional economic analysis for North Pacific fisheries. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-380, 86 p.

Seung, C., E. Waters, and M. Taylor. 2020. Developing a Multi-Regional Social Accounting Matrix (MRSAM) for Southwest Alaska Fisheries. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-AFSC-399, 33 p.

Seung, C., E. Waters, and S. Barbeaux. 2021. Community-level economic impacts of a change in TAC for Alaska fisheries: A multi-regional framework assessment. Ecological economics 2021 v.186 pp. 107072

Seung, C. K., and S. Miller. 2022. Regional economic analysis for fishery-dependent communities in Southwest Alaska. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-444, 51 p.

Waters, E., C. Seung., M. Hartley, and M. Dalton. 2014. Measuring the Multiregional Economic Contributions of an Alaska Fishing Fleet with Linkages to International Markets. Marine Policy 50: 238-248.

Regional Impact Analysis Web Application Overview

The 10MRSAM model web tool allows the user to input a series of shock vectors to run a species, gear, or charter-based model then view and export the resulting effects on fishery and non-seafood industry sales, employment estimates, and other variables. This section gives an overview of the following:

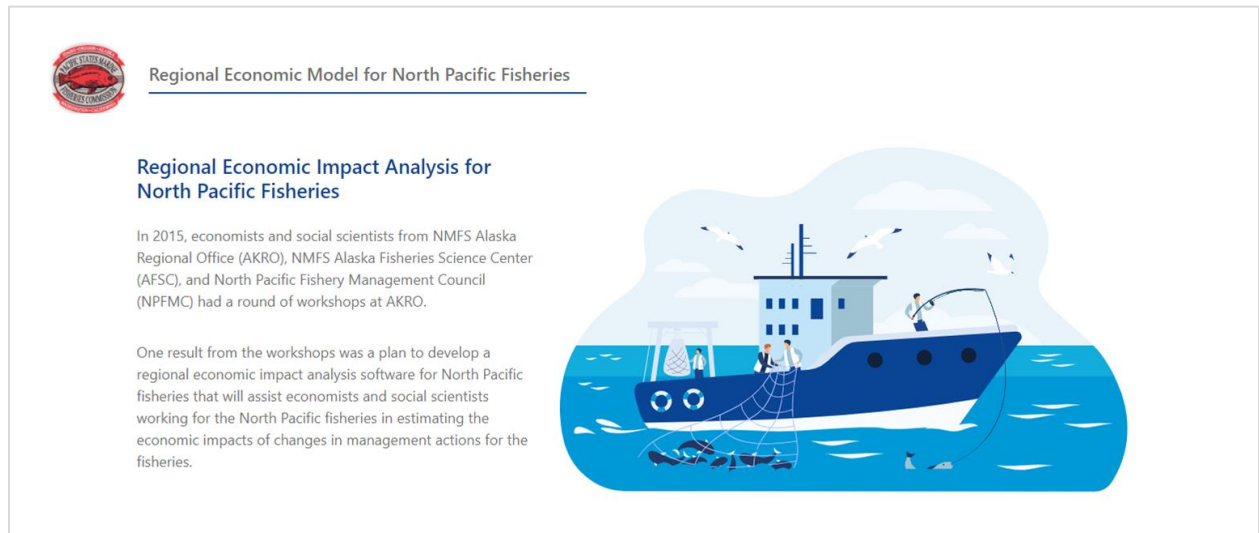
1. Accessing the application web page
2. Viewing the documentation
3. Viewing relevant code lists
4. Opening the 10MRSAM application page
5. Selecting the relevant model
6. Running an existing scenario
7. Viewing the model output
8. Copying table results to the clipboard
9. Exporting the 10MRSAM results to MS Excel
10. Creating and running a saved scenario
11. Editing and running a saved scenario
12. Deleting a saved scenario

For questions or concerns with regards to the Regional Impact Analysis web application, please contact Scott Miller at scott.miller@noaa.gov or Chang Seung at chang.seung@noaa.gov.

Accessing the Application

The Regional Impact Analysis web application can be run in any HTML5 compatible browser which includes Microsoft Edge, Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, or Safari (MacOS and iOS).

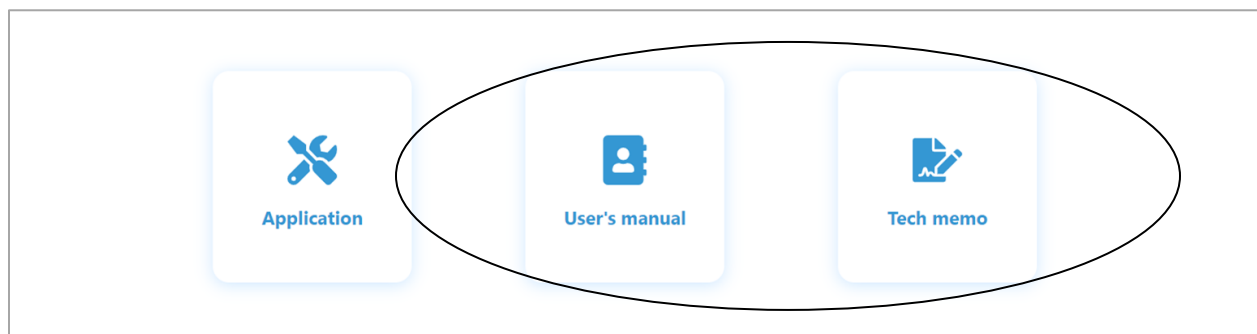
1. Navigate to the Regional Impact Analysis web application at: <https://nwecon.psmfc.org>



Viewing the Documentation

To view the Regional Impact Analysis User Manual or technical document, select the appropriate link from the application Home page.

1. Select either the **User's manual** or **Tech memo** link from the Home page.



The documents will open in a .pdf format.

Viewing Relevant Code Lists

A number of abbreviations and code lists are available from the Home page. Scroll down to the Abbreviations section of the Home page.

Abbreviations		
Non-seafood Industries		▼
Abbreviation	Description	Info
ANR-A	Agriculture and Natural Resources	
CONSTR-A	Construction	

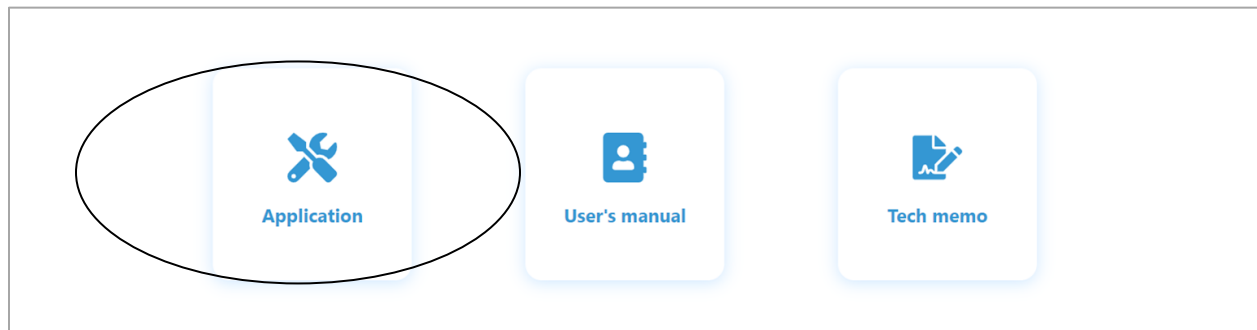
Note that a single abbreviations list, Non-seafood Industries, is expanded by default. These lists include a code, descriptions, and additional info when necessary. These lists are available for:

- Non-seafood Industries
- Seafood Industries
- Species Sectors
- Charter Inputs
- Other Abbreviations

Select the caret symbol to the right of this list to expand the menu and view additional abbreviation lists.

Opening the 10MRSAM Application Page

To open the Regional Impact Analysis and execute the MRSAM model, select the appropriate link from the application Home page. Select the **Application** link from the Home page.



Note the application page will open in a separate window where the user may begin their analysis. From here, they may select the model of their choosing, then run, create, or edit a set of shock inputs or scenarios.

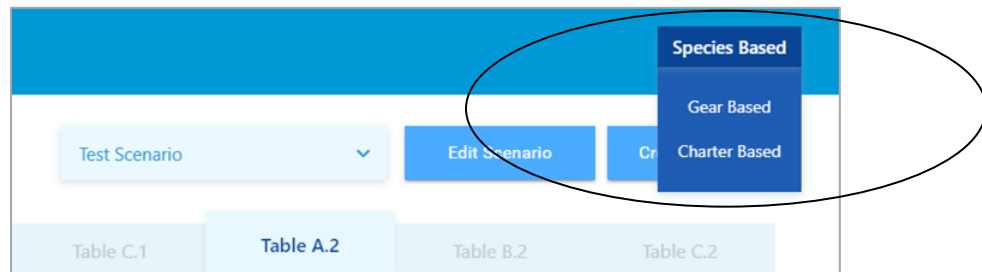
Homepage / Application									
Regional Economic Model for North Pacific Fisheries									
View By Table		View By Region		Test Scenario		Edit Scenario		Create Scenario	
Table A	Table B	Table C	Table A.1	Table B.1	Table C.1	Table A.2	Table B.2	Table C.2	
Table A.2 Baseline Non-seafood Industry Employment (# of jobs)									

Selecting the Relevant Model

The application page includes three, separate 10MRSAM models:

- Species-based model
- Gear-based model
- Charter-based model

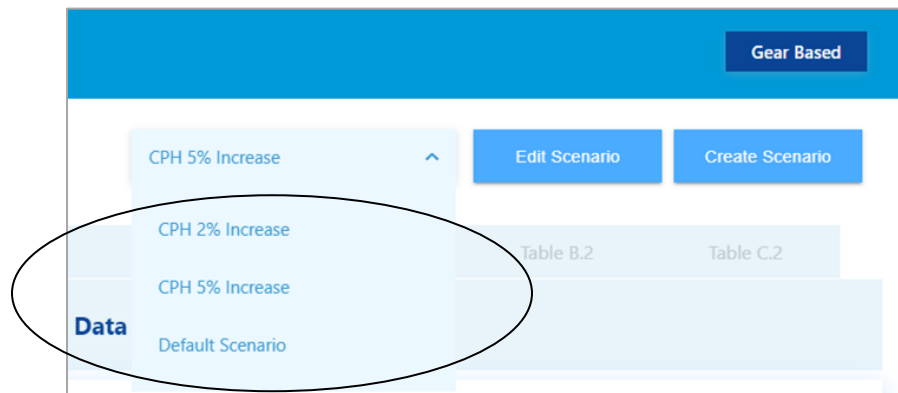
Select the desired model by activating the **Model Selector** at the top right of the application page.



Note the change to the table formats in the results display with each change in model selection.

Running an Existing Scenario

Each model in the application is initially loaded with a **Default Scenario** option that has no shock input vectors to start with. This default scenario could be edited and saved so that the user has their own default for the model(s) based on their preferences. These shock input collections are specific to the model with which they're associated.



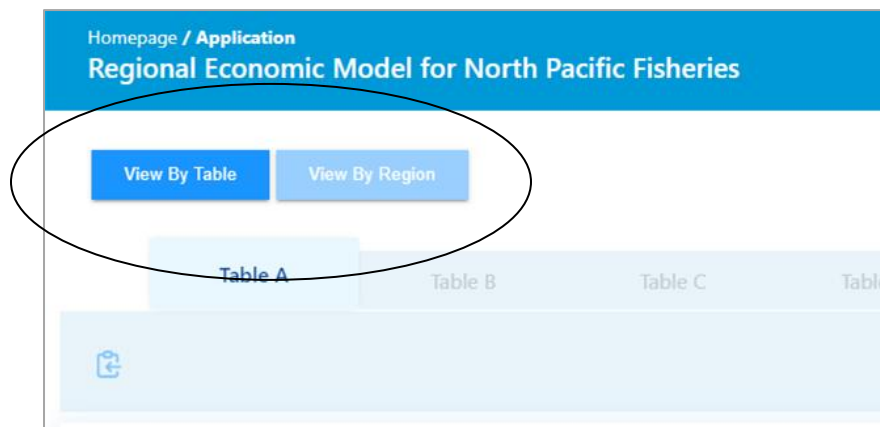
When a scenario is selected from the **Scenario Selector** drop-down, the associated shock inputs are automatically applied to the selected model and the output tables updated.

Viewing the Model Output

As shock inputs or scenarios are applied to the model(s) the results are automatically displayed in the output tables below. The model output may be viewed two ways.

1. **View by Table** – This output option groups like data together with separate tabs for each table, displaying similar variables together with tables that represent economic impacts in dollars or economic impacts in percent change. These tabs show grouped variables for each sector by region.
2. **View by Region** – This output option groups all variables for a region together with separate tabs for each region, displaying all variables together for tables that represent all data points for Aleutians West Census Area or Bristol Bay. These tabs show variables by sector and economic impact.

To toggle the output views, activate either the **View by Table** or **View by Region** buttons at the top left of the page.



The Species and Gear models provide very similar outputs with a slight variation to the presentation in the **View by Table** and **View by Region** output options. The **View by Table** includes a tab for each of the following collections of data.

- Table A - Baseline Data
- Table B - Economic impacts (quantity change)
- Table C - Economic Impacts (% change)
- Table A.1 - Baseline Non-seafood Industry Output (\$ million)
- Table B.1 - Economic Impacts on Non-seafood Industry Output (\$ million, quantity change)
- Table C.1 - Economic Impacts on Non-seafood Industry Output (% change)
- Table A.2 - Baseline Non-seafood Industry Employment (# of jobs)
- Table B.2 - Economic Impacts on Non-seafood Industry Employment (change in # of jobs)
- Table C.2 - Economic Impacts on Non-seafood Industry Employment (% change)

The **View by Region** output option presents the same data with a tab for each region displaying first the **Industry Output** variables above the **Employment** variables in the same table.

The Charter model has a similar variation on with these output options. The **View by Table** includes a tab for each of the following collections of data.

- Table R - Baseline Industry Output (\$ million)
- Table S - Economic Impacts on Industry Output (\$ million, quantity change)
- Table T - Economic Impacts on Industry Output (% change)

- Table R.1 - Baseline Industry Employment (# jobs)
- Table S.1 - Economic Impacts on Industry Employment (change in # of jobs)
- Table T.1 - Economic Impacts on Industry Employment (% change)
- Table R.2 - Baseline Other Variables
- Table S.2 - Impacts on Other Variables (quantity change)
- Table T.2 - Impacts on Other Variables (% change)

The **View by Region** output option presents the same data with a tab for each region displaying first the **Industry Output** variables above the **Employment** variables in the same table.

Note that the user may increase the area of the table shown on the screen by hiding the footer region on the page. To do this, select the **Hide** link at right-hand side of the blue footer region. The footer can then be expanded by selecting the caret icon. The results of these output are easily scrolled and viewable and can be copied, table-by-table, to the clipboard where it can be pasted into a document or packaged up in an MS Excel export.

Copying Table Results to the Clipboard

The results of the 10MRSAM output may be copied to the user's clipboard and pasted into an MS Word or Google document. To copy a table to a document:

1. Highlight the desired output table tab
2. Select the **Clipboard Icon** located at the top right of table output just below the tab region
3. Paste into the desired location and format



Exporting the 10MRSAM Results to MS Excel

The full set of results from the 10MRSAM model may be exported to an MS Excel document and saved to the user's local files. This packaged export includes the full set of outputs with:

- Inputs to include the GDP deflator chosen along with the shock vectors
- All tables from the **View by Table** output option
- All tables from the **View by Region** output option

To export the 10MRSAM model results, select the **Export** button in the footer region.

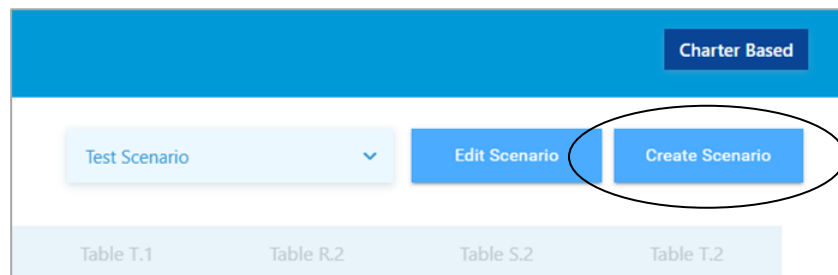
	0.00	0.0
	0.00	0.0
	0.00	0.0

Export to Excel
Hide

Creating and Running a Saved Scenario

The 10MRSAM application allows users to create scenarios or sets of shock inputs for run at a later time. These scenarios are stored on the user's computer in their local browser storage; this allows the user to edit and re-save as new scenarios or delete as well.

To create a new scenario, select the **Create Scenario** button at the top right of the application page.



This will open the Create Scenario dialog box where the user may:

1. Name the scenario
2. Set the GDP deflator
3. Filter the shock vector inputs
4. Enter inputs to the shock vectors
5. Create the saved scenario
6. Cancel the scenario creation
7. Reset the scenario dialog box

Scenario name

Impact Year: 2014

GDP Deflator Value: 1

Shock Vectors Filter: All Values

Shock Vectors

[At-Sea] H-Pcod-C	[At-Sea] H-Pollock-C	[At-Sea] H-Sablefish-C
0	0	0
[At-Sea] H-Rockfish-C	[At-Sea] H-Flatfish-C	[At-Sea] H-OtherSpp-C
0	0	0
[At-Sea] P-Pcod-C	[At-Sea] P-Pollock-C	[At-Sea] P-Sablefish-C
0	0	0

Buttons: Cancel, Reset Scenario, Create

Name the Scenario

Enter a name for the new scenario by typing into the text area that says **Scenario name**. The new scenario name may contain a mix of letters, numbers, or characters in a string up to 100 characters.

Scenario name

Pcod Test Scenario

This name can then be selected from the drop-down list to run the set of associated GDP deflator/shocks.

Set the GDP Deflator

Set the desired gross domestic product (GDP) price deflator by:

1. Selecting the impact year (note the change of value in the GDP Deflator Value text box to the right), OR
2. Selecting the Custom GDP option then entering the value manually to the text box.

The screenshot shows a web interface for a model. At the top left, there is a label "Impact Year" next to a dropdown menu currently set to "2014". The dropdown menu is open, showing a list of years: 2014, 2015, 2016, 2017, 2018, 2019, and a "Custom GDP" option at the bottom. To the right of the year dropdown, there is a label "GDP Deflator Value" followed by an information icon and a text input field containing the number "1". Below the year dropdown, there is a label "All Values" and a "Shock Vectors Filter" dropdown menu. The "Shock Vectors Filter" dropdown is also open, showing a list of options: "All Values", "Regions", "At-Sea", "AWCA", and "AEB". The "Shock Vectors" label is visible below the filter dropdown.

The model's default value is reported in 2014 dollars.

Filter the Shock Vector Inputs

Because the 10MRSAM offers a good number of input shock options, a multi-selection, drop-down box is available to filter the list of shocks presented in the dialog box. These shocks represent a change in ex-vessel revenue for a fish harvesting sector (e.g. [AWCA] H-Kcrab-C) and the change in first wholesale revenue for a fish processing sector (e.g. [At-Sea]-P-Pcod-C).

The drop-down presents two filters in two groups: **Region** so that the user may view all shocks for a specific region (i.e. AWCA) or **Sector** so that the user may view all shocks for a given sector/species (i.e. Pcod)

The screenshot shows the "Shock Vectors Filter" dropdown menu. The menu is open, showing a list of options: "All Values", "Regions", "At-Sea", "AWCA", and "AEB". The "Regions" group is highlighted, and the "AWCA" option is highlighted in red. The "At-Sea" and "AEB" options are highlighted in blue.

As options are added to the Shock Vector Filter, they will be listed in the top of the drop-down with region filters highlighted in red and species highlighted in blue. To remove a filter, select the "X" to the right of the filter title.

The screenshot shows the "Shock Vectors Filter" dropdown menu. The menu is open, showing a list of options: "All Values", "Regions", "At-Sea", "AWCA", "AEB", "Sectors", "Kcrab", "Tcrab", and "Ocrab". The "Sectors" group is highlighted, and the "Tcrab" option is highlighted in blue. The "Kcrab" and "Ocrab" options are highlighted in light blue. The "Regions" group is also visible, with "AWCA" highlighted in red and "Pcod" highlighted in blue. The "At-Sea" and "AEB" options are highlighted in light blue.

As the filters are applied in the multi-selection, drop-down, the list of shock vector inputs displayed below will be limited to those specified. If desired, the user may perform one filter (i.e. Region = 'AWCA') and enter the shock vector then perform a second filter (i.e. Region = 'RAK') and enter the second shock vector. The shock vector inputs remain persistent until the **Reset Scenario** button is selected.

Note: When adding a shock vector input to a region in Alaska (i.e. AWCA), the user will also want to consider the shock vector input that might affect the rest of Alaska (RAK).

Enter Inputs to the Shock Vectors

A shock vector input may be entered in positive or negative, integer or decimal values but must be populated with a zero at minimum. A null value or text string will be highlighted in red and evaluated as a zero when executing in the model. The example below represents a scenario with an increase in Pacific Cod harvesting revenue in the Aleutians West Census Area. Note that the Pollock harvesting shock input is highlighted in red and but will be evaluated as a zero during the model execution.

The screenshot shows a web form titled "Scenario name" with the subtitle "Pcod Test Scenario". The form includes the following elements:

- Impact Year:** A dropdown menu set to "2014".
- GDP Deflator Value:** A text input field containing "1".
- Shock Vectors Filter:** A multi-select dropdown menu with "AWCA" selected and a close button (X).
- Shock Vectors:** A grid of input fields for different fish species in the AWCA region:

[AWCA] H-Kcrab-C	[AWCA] H-Tcrab-C	[AWCA] H-Ocrab-C
0	0	0
[AWCA] H-Pcod-C	[AWCA] H-Pollock-C	[AWCA] H-Sablefish-C
10		0
[AWCA] H-Rockfish-C	[AWCA] H-Flatfish-C	[AWCA] H-Halibut-C
0	0	0
- Buttons:** "Cancel", "Reset Scenario", and "Create".

Create the Saved Scenario

Once all desired shock input vectors are populated, the user may select **Create**, to run and save the inputs for the model. After selecting **Create**, the dialog box is closed and the shock vector inputs are

automatically applied with results displayed in the output tables. Note that these saved scenarios will now be available from the scenario drop-down box on the main application page.

Cancel the Scenario Creation

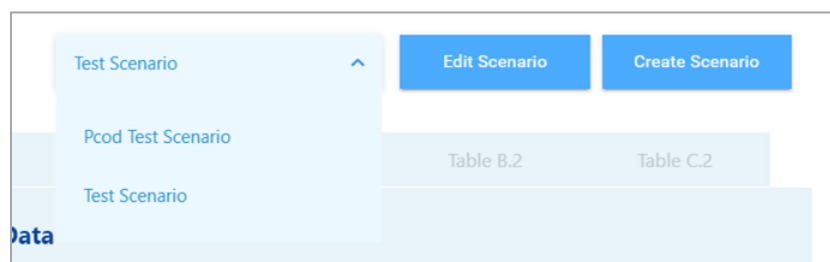
Once filters are applied and shock vector inputs entered, the user may select the **Cancel** button to exit the shock vector inputs and return to the application page. This will ensure the scenario is not saved to the user's local storage.

Reset the Scenario Dialog Box

To start over with the scenario, the user may select the **Reset Scenario** button to return to the default GDP deflator, clear the multi-select drop-down filter, and clear the shock vector input boxes. From here the user may begin their entry again or select **Cancel** to return to the application page.

Editing and Running a Saved Scenario

Existing scenarios may be edited, saved, and run by selecting the desired option from the **Scenario Selector** drop-down box at the top right of the application page.



Once the desired scenario is selected from the drop-down, the associated shock input vectors will be applied to the model automatically. To edit these inputs, select the **Edit Scenario** button to open the **Edit Scenario** dialog box.

Make any necessary changes to the GDP deflator or shock input vectors, then press **Save** to update the scenarios profile in the local browser storage. Upon saving, the dialog box is closed and the new shock vector inputs are applied to the model.

Deleting a Saved Scenario

Existing scenarios may be deleted from the user's set of saved scenarios. To do this:

1. Select the desired option from the **Saved Scenario** drop-down box at the top right of the application page
2. Press the Edit Scenario button to open the **Edit Scenario** dialog box.
3. Select **Delete**

This action will remove the scenario from the client's local storage.