

This analysis uses nationally collected landings data for the whole U.S., downloaded from the NOAA FOSS site [https://foss.nmfs.noaa.gov/apexfoss/f?p=215:200:::~:](https://foss.nmfs.noaa.gov/apexfoss/f?p=215:200:::)

```
## [[1]]
## [1] "When back calculated, Q_{i,t} did not equal V_{i,t}/PI_{i,t}"
##
## [[2]]
## [1] "When back calculated, Q_{i,t} did not equal V_{i,t}/PI_{i,t}"
##
## [[3]]
## [1] "When back calculated, Q_{i,t} did not equal V_{i,t}/PI_{i,t}"
##
## [[4]]
## [1] "When back calculated, V_t did not equal PI_t * Q_t"
##
## [[5]]
## [1] "When back calculated, Q_t did not equal V_t/PI_t"
##
## [[6]]
## [1] "When back calculated, ln(Q_t/Q_{t-1}) = did not equal sum( ( frac{R_{i, t} - R_{i, t-1}}{2}) *
##
## [[7]]
## [1] "Out of 30 columns, 32 of species V columns are completely empty, 34 of species Q columns are com
```

Species in Each category by Common Name

## \$Other		
## [1] "WITHHELD FOR CONFIDENTIALITY "	"ULOTRICHIALES **"	"H
## [4] "PENICILLUS **"	"CAULERPACEAE **"	"B
## [7] "SEAWEEDES, OTHER **"	"LAMINARIA **"	"L
## [10] "LAMINARIA DIGITATA "	"SEAWEED, KELP **"	"A
## [13] "SEAWEED, ROCKWEED FAMILY **"	"SEAWEED, ROCKWEED "	"S
## [16] "FUCUS VESICULOSUS "	"SEAWEED, IRISH MOSS "	"C
## [19] "PALMARIA PALMATA "	"FIG **"	"F
## [22] "SPONGES, OTHER **"	"SPONGES **"	"H
## [25] "HALICLONA COMPRESSA "	"HYDRALIKE ANIMALS **"	"J
## [28] "JAMAICAN CASSIOPEA "	"STOMOLOPHUS **"	"J
## [31] "CORALS **"	"DEEPWATER CORAL "	"G
## [34] "PENS/PANSIES, SEA **"	"PALYTHOA **"	"G
## [37] "CORALLIMORPHARIA **"	"CORALLIMORPHIDAE **"	"F
## [40] "ACTINIIDAE **"	"ANEMONE, GIANT CARIBBEAN "	"R
## [43] "RED BEADED ANEMONE "	"SUN ANEMONE "	"M
## [46] "APHRODITA HASTATAY "	"AMPHINOMIDAE **"	"S
## [49] "BLOODWORMS "	"SABELLIDAE **"	"S
## [52] "SPIROBRANCHUS GIGANTEUS "	"CLAM, BUTTER "	"B
## [55] "SESSILE TUNICATES **"	"LAMPREY, PACIFIC "	"S
## [58] "SHARK, SOUPFIN "	"FINFISH **"	"T
## [61] "HERRING, PACIFIC, ROE ON KELP **"	"ANCHOVIES, OTHER **"	"P
## [64] "ROUGHY, BIG "	"DORY, AMERICAN JOHN "	"R
## [67] "CABEZON, OTHER "	"CONEY "	"G
## [70] "GROUPE, MARBLED "	"PIKE, BLUE **"	"W
## [73] "SAUGER "	"JACK, BAR "	"G
## [76] "SPADEFISHES **"	"SOUTHERN SENNET "	"T
## [79] "MARLIN, BLACK "	"MARLIN, WHITE "	"M

## [82] "HARVESTFISH "	"FLOUNDER, FOURSPOT "	"R
## [85] "BUTTER SOLE "	"ENGLISH SOLE "	"R
## [88] "FROGS **"	"GRAY TREEFROG "	"G
## [91] "TURTLES **"	"TURTLE, SNAPPING "	"C
## [94] "RAZOR-BACKED MUSK TURTLE "	"MUD TURTLES **"	"T
## [97] "TURTLES, BABY (YOUNG FW) **"	"PAINTED TURTLE "	"T
## [100] "RIVER COOTER "	"SLIDER "	"T
## [103] "TURTLE, GREEN SEA "	"TURTLE, SOFT-SHELL **"	"G
## [106] "GARTER SNAKES **"	"CULEBRA-CORREDORA CONSTRICTOR "	"R
## [109] "RAT SNAKE "	"GREEN WATER SNAKE "	"S
## [112] "WHALES **"	"SPONGE, YELLOW "	"S
## [115] "SPONGE, SHEEPSWOOL "	"PLANTS **"	"S
## [118] "EUROPEAN SPADEFOOT TOADS **"	"NORTH AMERICAN SOFTSHELL TURTLES **"	"S
## [121] "YELLOW-BELLIED WATER SNAKE **"	"ALLIGATOR, AMERICAN "	"D
## [124] "SPOTTED BURRFISH "	"FLOUNDER, ARROWTOOTH "	"S
## [127] "PLANEHEAD FILEFISH "	"BROWN ALGAE **"	"T
## [130] "MISSISSIPPI MAP TURTLE **"	"DISCOSOMA **"	"P
## [133] " "		
##		
## \$Shellfish		
## [1] "MOLLUSKS **"	"SNAILS **"	"ABA
## [4] "ABALONE, RED "	"ABALONE, BLACK "	"ABA
## [7] "ABALONE, GREEN "	"ABALONE, WHITE "	"LIM
## [10] "TROCHIDAE **"	"TEGULA **"	"CHE
## [13] "NERITIDAE **"	"MESOGASTROPODA **"	"PER
## [16] "SNAIL, FLORIDA CERITHIDEA **"	"EPITONIIDAE **"	"JAN
## [19] "STROMBIDAE **"	"SNAILS (CONCHS) **"	"FLO
## [22] "MILK CONCH "	"HAWKWING CONCH "	"SNA
## [25] "COWRIE, ATLANTIC DEER "	"MEASLED COWRIE "	"FLA
## [28] "SNAIL, MOON **"	"SHARK EYE "	"CAS
## [31] "TRITON, ANGULAR "	"MURICIDAE **"	"WAV
## [34] "MELONGENIDAE **"	"BUSYCON **"	"WHE
## [37] "WHELK, LIGHTNING "	"WHELK, CHanneled "	"CRO
## [40] "NASSARIUS **"	"BRUISED NASSA "	"MUD
## [43] "TRUE TULIP "	"HORSE CONCH "	"OLI
## [46] "MARGINELLIDAE **"	"TURBINELLIDAE **"	"FLO
## [49] "CONUS **"	"MELAMPUS **"	"APL
## [52] "NUDIBRANCHS **"	"FLORIDA REGAL DORIS "	"POL
## [55] "CLAMS OR BIVALVES **"	"CLAM, ARC, BLOOD "	"MUS
## [58] "MUSSEL, CALIFORNIA "	"RIBBED MUSSEL "	"PIN
## [61] "SCALLOPS **"	"SCALLOP, ICELAND "	"SCA
## [64] "SCALLOP, CALICO "	"SCALLOP, BAY "	"SCA
## [67] "LIONS-PAW SCALLOP "	"OYSTER, ATLANTIC THORNY "	"FIL
## [70] "OYSTER, PACIFIC "	"OYSTER, EASTERN "	"OYS
## [73] "MUSSELS, FW **"	"MUSSEL, SLIPPERSHELL "	"THR
## [76] "MAPLELEAF "	"WASHBOARD "	"BLE
## [79] "COCKLE, NUTTALL "	"CLAM, ATLANTIC SURF "	"CLA
## [82] "CLAM, ATLANTIC RANGIA "	"CLAM, ARCTIC SURF (STIMPSON) "	"CLA
## [85] "CLAM, ATLANTIC JACKKNIFE "	"CLAM, CALIFORNIA JACKKNIFE "	"CLA
## [88] "CLAM, STOUT TAGELUS (STUBBY RAZOR/BAMBOO) "	"CLAM, OCEAN QUAHOG "	"CLA
## [91] "CLAM, PACIFIC LITTLENECK "	"CLAM, QUAHOG **"	"CLA
## [94] "SOUTHERN QUAHOG "	"PITAR **"	"QUA
## [97] "CLAM, SUNRAY VENUS "	"CHAMIDAE **"	"CLA
## [100] "PANOPEA GENEROSA "	"CLAM, PACIFIC GEODUCK "	"ANG

## [103] "TEUTHIDA **"	"SQUIDS **"	"SQUIDS **"
## [106] "SQUID, LONGFIN LOLIGO "	"SQUID, ATLANTIC BRIEF "	"SQUID, ATLANTIC BRIEF "
## [109] "SQUID, JUMBO "	"OCTOPUS **"	"OCTOPUS **"
## [112] "OCTOPUS, ATLANTIC PYGMY "	"CARIBBEAN REEF OCTOPUS "	"OCTOPUS, ATLANTIC PYGMY "
## [115] "LIMULUS **"	"CRAB, HORSESHOE "	"CRAB, HORSESHOE "
## [118] "SHRIMP, BRINE "	"CRABS **"	"SHRIMP, BRINE "
## [121] "SHRIMP, MARINE, OTHER **"	"SHRIMP, PENAEID **"	"SHRIMP, MARINE, OTHER **"
## [124] "PRAWN, GIANT TIGER "	"SHRIMP, ATLANTIC & GULF, ROUGHNECK **"	"SHRIMP, ATLANTIC & GULF, ROUGHNECK **"
## [127] "SHRIMP, ROYAL RED "	"SHRIMP, ROCK **"	"SHRIMP, ROYAL RED "
## [130] "SHRIMP, PACIFIC ROCK "	"CARIDEA **"	"SHRIMP, PACIFIC ROCK "
## [133] "PALAEMONETES **"	"SHRIMP, PEDERSON CLEANER "	"SHRIMP, PEDERSON CLEANER "
## [136] "ALPHEUS **"	"SHRIMP, PEPPERMINT "	"SHRIMP, PEPPERMINT "
## [139] "SHRIMP, NORTHERN "	"SHRIMP, OCEAN "	"SHRIMP, NORTHERN "
## [142] "SHRIMP, BAY **"	"SHRIMP, GOLDEN CORAL "	"SHRIMP, BAY **"
## [145] "CRAYFISHES, FRESHWATER **"	"LOBSTER, AMERICAN "	"CRAYFISHES, FRESHWATER **"
## [148] "PROCAMBARUS **"	"LOBSTER, CARIBBEAN SPINY "	"LOBSTER, CARIBBEAN SPINY "
## [151] "SPOTTED SPINY LOBSTER "	"LOBSTER, SLIPPER **"	"SPOTTED SPINY LOBSTER "
## [154] "SHRIMP, GHOST **"	"CRABS, HERMIT **"	"SHRIMP, GHOST **"
## [157] "CRABS, LAND HERMIT **"	"CRAB, KING **"	"CRABS, LAND HERMIT **"
## [160] "CRABS, PORCELAIN **"	"CRAB, SPOTTED PORCELAIN "	"CRABS, PORCELAIN **"
## [163] "CRAB, ATLANTIC SAND "	"PAGURISTES PUNCTICEPS "	"CRAB, ATLANTIC SAND "
## [166] "THINSTRIPES HERMIT "	"TRICOLOR HERMIT "	"THINSTRIPES HERMIT "
## [169] "GIANT HERMIT "	"ORANGECLAW HERMIT "	"GIANT HERMIT "
## [172] "CRABS, TRUE **"	"CRABS, BOX **"	"CRABS, TRUE **"
## [175] "CRAB, SNOW/TANNER **"	"CRAB, SNOW "	"CRAB, SNOW/TANNER **"
## [178] "LIBINIA **"	"CRAB, PORTLY SPIDER "	"LIBINIA **"
## [181] "CRAB, YELLOWLINE ARROW "	"CRAB, FALSE ARROW "	"CRAB, YELLOWLINE ARROW "
## [184] "MITHRACULUS **"	"CRAB, RED-RIDGED CLINGING "	"MITHRACULUS **"
## [187] "MITHRACULUS RUBER "	"CRAB, CANCER **"	"MITHRACULUS RUBER "
## [190] "CRAB, DUNGENESS "	"CRAB, JONAH "	"CRAB, DUNGENESS "
## [193] "CRAB, BLUE "	"CRAB, LADY "	"CRAB, BLUE "
## [196] "CRAB, RED PA "	"CRABS, STONE **"	"CRAB, RED PA "
## [199] "CRAB, REDFINGER RUBBLE "	"CRAB, NIMBLE SPRAY "	"CRAB, REDFINGER RUBBLE "
## [202] "CRAB, BLUE LAND "	"SHRIMPS, MANTIS **"	"CRAB, BLUE LAND "
## [205] "ECHINODERM **"	"STARS, OTHER SEA **"	"ECHINODERM **"
## [208] "STARS, BRITTLE **"	"BASKET STAR "	"STARS, BRITTLE **"
## [211] "SCALY BRITTLE STAR "	"STAR, SERPENT BRITTLE "	"SCALY BRITTLE STAR "
## [214] "SLATE PENCIL URCHIN "	"PURPLE-SPINED SEA URCHIN "	"SLATE PENCIL URCHIN "
## [217] "ROCK BORING URCHIN "	"URCHINS, SEA **"	"ROCK BORING URCHIN "
## [220] "BISCUITS, SEA **"	"BISCUIT, INFLATED SEA "	"BISCUITS, SEA **"
## [223] "DOLLARS, OTHER SAND **"	"KEYHOLE SAND DOLLAR **"	"DOLLARS, OTHER SAND **"
## [226] "DOLLARS, SIX-HOLED KEYHOLE SAND **"	"SEA CUCUMBER, UNCLASSIFIED **"	"DOLLARS, SIX-HOLED KEYHOLE SAND **"
## [229] "CUCUMBERS, OTHER SEA **"	"FLORIDA SEA CUCUMBER "	"CUCUMBERS, OTHER SEA **"
## [232] "LOBSTER, BANDED SPINY "	"PAGUROIDEA **"	"LOBSTER, BANDED SPINY "
## [235] "SHRIMP, BROWN "	"SHRIMP, PINK "	"SHRIMP, BROWN "
## [238] "RANELLIDAE **"	"TURBINIDAE **"	"RANELLIDAE **"
## [241] "LETTUCE SLUG "	"OYSTER, OLYMPIA "	"LETTUCE SLUG "
## [244] "CRAB, DEEPSEA GOLDEN "	"CRAB, DEEPSEA RED "	"CRAB, DEEPSEA GOLDEN "
## [247] "SHRIMP, FARFANTEPENAEUS SPP **"		"SHRIMP, FARFANTEPENAEUS SPP **"
##		
## \$Finfish		
## [1] "LAMPREY, SEA "	"HAGFISH FAMILY **"	"HAGFISHES "
## [5] "SHARKS, UNIDENTIFIED **"	"SHARKS, MACKEREL, UNCLASSIFIED **"	"SHARK, SAND TIGER "
## [9] "SHARK, PORBEAGLE "	"SHARKS, THRESHER **"	"SHARK, THRESHER "

## [13]	"SHARK, MAKOS **"	"SHARK, SHORTFIN MAKO "	"SHARK, LONGFIN M "
## [17]	"SHARK, BROWN CAT "	"CHAIN DOGFISH "	"SHARK, TIGER "
## [21]	"SHARK, SMOOTH DOGFISH "	"SHARK, DUSKY "	"SHARK, BULL "
## [25]	"SHARK, BLACKNOSE "	"SHARK, BIGNOSE "	"SHARK, SILKY "
## [29]	"SHARK, OCEANIC WHITETIP "	"SHARK, REEF "	"SHARK, SPINNER "
## [33]	"SHARK, NIGHT "	"SHARK, BLUE "	"SHARK, LEMON "
## [37]	"SHARK, HAMMERHEAD **"	"SHARK, BONNETHEAD "	"SHARK, SMOOTH H "
## [41]	"SHARK, GREAT HAMMERHEAD "	"SHARKS **"	"SHARK, DOGFISH :
## [45]	"BLACK DOGFISH "	"SHARK, PACIFIC ANGEL "	"SHARK, ATLANTIC "
## [49]	"SAWFISH, SMALLTOOTH "	"BANDED GUITARFISH "	"TORPEDO, ATLANT "
## [53]	"SKATES **"	"SKATE, BIG "	"SKATE, CALIFORN "
## [57]	"SKATE, SANDPAPER "	"SKATE, ROUGHTAIL "	"RAY,STINGRAYS *
## [61]	"STINGRAY, ATLANTIC "	"RAYS, BUTTERFLY **"	"EAGLE RAY FAMIL "
## [65]	"RATFISH SPOTTED "	"STURGEONS **"	"STURGEON, GREEN "
## [69]	"PADDLEFISH "	"GARS **"	"GAR GENUS **"
## [73]	"SPOTTED GAR "	"SHORTNOSE GAR "	"BOWFIN "
## [77]	"TARPON "	"EELS **"	"EEL, AMERICAN "
## [81]	"GREEN MORAY "	"SPOTTED MORAY "	"BLACKEDGE MORAY "
## [85]	"EELS, CONGER **"	"EEL, CONGER "	"EELS, SNAKE **"
## [89]	"GOLDSPOTTED EEL "	"SPECKLED WORM EEL "	"HERRINGS **"
## [93]	"SHAD, AMERICAN "	"HERRING, BLUEBACK "	"SHAD, HICKORY "
## [97]	"HERRING, SEA, ATLANTIC "	"SARDINE, PACIFIC "	"MENHADEN **"
## [101]	"SHAD, GIZZARD "	"SHAD, THREADFIN "	"HERRING, ROUND "
## [105]	"SCALED SARDINE "	"SARDINE, SPANISH "	"ANCHOVY, NORTHE "
## [109]	"MOONEYES **"	"CHUBS **"	"WHITEFISH, LAKE "
## [113]	"SALMON, PINK "	"SALMON, CHUM "	"SALMON, COHO "
## [117]	"SALMON, CHINOOK "	"TROUT, RAINBOW "	"SALMON, ATLANTIC "
## [121]	"DOLLY VARDEN "	"CHAR, ARCTIC "	"TROUT, LAKE "
## [125]	"INCONNU "	"WHITEFISH, ROUND "	"SMELTS **"
## [129]	"SMELT, RAINBOW "	"SMELT, EULACHON "	"SMELT, WHITEBAI "
## [133]	"PIKES **"	"LIZARDFISH FAMILY **"	"INSHORE LIZARDF "
## [137]	"CARPS AND MINNOWS **"	"CARP, COMMON "	"GOLDFISH "
## [141]	"SQUAWFISHES **"	"CARP, GRASS "	"SACRAMENTO BLACK "
## [145]	"SILVER CARP "	"BIGHEAD CARP "	"SUCKERS **"
## [149]	"UNIDENTIFIED CATFISHES **"	"CATFISHES-BULLHEADS, UNCLASSIFIED **"	"CATFISHES-BULLH "
## [153]	"CATFISH, CHANNEL "	"CATFISH, FLATHEAD "	"BULLHEADS **"
## [157]	"BULLHEAD, BROWN "	"CATFISHES-BULLHEADS, OTHER **"	"CATFISHES, SEA :
## [161]	"TOADFISHES **"	"OYSTER TOADFISH "	"CLINGFISH FAMIL "
## [165]	"GOOSEFISH, BLACKFIN "	"FROGFISHES **"	"SARGASSUMFISH "
## [169]	"HALIEUTICHTHYS **"	"COD FAMILY **"	"COD, PACIFIC "
## [173]	"TOMCOD, PACIFIC "	"TOMCOD, ATLANTIC "	"BURBOT "
## [177]	"HAKES, RED AND WHITE **"	"HAKE, RED "	"HAKE, SPOTTED "
## [181]	"HAKE, SOUTHERN "	"CUSK "	"HADDOCK "
## [185]	"HAKE, SILVER "	"HAKE, PACIFIC (WHITING) "	"HAKE, OFFSHORE :
## [189]	"BROTULA, BEARDED "	"KEY BROTLULA "	"BLACK BROTLULA "
## [193]	"GRENADIERS **"	"PACIFIC GRENADIER "	"GIANT GRENADIER "
## [197]	"HEMIRAMPHUS **"	"BALLYHOO "	"NEEDLEFISH FAMIL "
## [201]	"SKIPPERS **"	"HOUNDFISH "	"SAURY, PACIFIC "
## [205]	"MUMMICHOG "	"MANGROVE GAMBUSIA "	"SILVERSIDES **"
## [209]	"REDFISHES **"	"RED BREAM "	"ALFONSIN "
## [213]	"BLACKBAR SOLDIERFISH "	"DORIES **"	"BUCKLER DORY "
## [217]	"RIBBONFISH FAMILY **"	"DEALFISH "	"TENSPINED STICK "
## [221]	"BLUESPOTTED CORNETFISH "	"SARGASSUM PIPEFISH "	"SEAHORSE GENUS :
## [225]	"DWARF SEAHORSE "	"SNAKEHEAD "	"SCORPIONFISHES :

## [229] "ROUGHEYE ROCKFISH "	"ROCKFISH, PACIFIC OCEAN PERCH "	"ROCKFISH, BROWN
## [233] "ROCKFISH, REDBANDED "	"ROCKFISH, SILVERGRAY "	"ROCKFISH, COPPEL
## [237] "ROCKFISH, SPLITNOSE "	"ROCKFISH, GREENSTRIPED "	"ROCKFISH, WIDOW
## [241] "ROCKFISH, CHILIPEPPER "	"ROCKFISH, SHORTBELLY "	"ROCKFISH, BLACK
## [245] "ROCKFISH, VERMILION "	"ROCKFISH, BLUE "	"ROCKFISH, CHINA
## [249] "ROCKFISH, CANARY "	"ROCKFISH, REDSTRIPE "	"ROCKFISH, YELLOW
## [253] "ROCKFISH, YELLOWEYE "	"ROCKFISH, STRIPETAILED "	"ROCKFISH, SHARP
## [257] "ROCKFISH, GREENSPOTTED "	"ROCKFISH, STARRY "	"ROCKFISH, PINK
## [261] "ROCKFISH, SQUARESPOT "	"ROCKFISH, COWCOD "	"ROCKFISH, SPECK
## [265] "ROCKFISH, GRASS "	"ROCKFISH, FLAG "	"ROCKFISH, BANK
## [269] "ROCKFISH, TREEFISH "	"ROCKFISH, HONEYCOMB "	"ROCKFISH, GOPHE
## [273] "ROCKFISH, PINKROSE "	"ROCKFISH, GREENBLOTCHED "	"ROCKFISH, BLACK
## [277] "THORNYHEAD, SHORTSPINE "	"THORNYHEAD, LONGSPINE "	"ROSEFISH, BLACK
## [281] "LONGSNOUT SCORPIONFISH "	"SCORPIONFISH, SPOTTED "	"REEF SCORPIONFI
## [285] "LIONFISH, RED "	"SEAROBINS **"	"SEAROBIN GENUS :
## [289] "SEAROBIN, STRIPED "	"SEAROBIN, ARMORED "	"GREENLINGS **"
## [293] "LINGCOD "	"MACKEREL, ATKA "	"SABLEFISH "
## [297] "RAVEN, SEA "	"LUMPFISH "	"SNOOK "
## [301] "PERCH, WHITE "	"BASS, STRIPED "	"BASS, WHITE "
## [305] "BASS, BLACK SEA "	"SEA BASS, BANK "	"BASS, ROCK SEA
## [309] "HIND, ROCK "	"SPOTTED CABRILLA "	"HIND, SPECKLED
## [313] "HIND, RED "	"GROUPE, RED "	"GROUPE, MISTY
## [317] "GROUPE, SNOWY "	"GROUPE, NASSAU "	"CONEY "
## [321] "MUTTON HAMLET "	"GAG "	"GROUPE, BLACK
## [325] "SCAMP "	"GROUPE, YELLOWFIN "	"GROUPE, TIGER
## [329] "SAND PERCH "	"SAND PERCH, DWARF "	"SPANISH FLAG "
## [333] "BARBIER, RED "	"BUTTER HAMLET "	"WRASSE BASS "
## [337] "PEPPERMINT BASS "	"CANDY BASSLET "	"ROCK BASSES, PA
## [341] "LANTERN BASS "	"BELTED SANDFISH "	"TOBACCOFISH "
## [345] "CHALK BASS "	"SERRANUS SCRIBA "	"WRECKFISH "
## [349] "SOAPFISH GENUS **"	"THREELINE BASSLET "	"SUNFISHES **"
## [353] "PUMPKINSEED "	"LARGEMOUTH BASS "	"CRAPPIE **"
## [357] "BIGEYE "	"GLASSEYE SNAPPER "	"BIGEYE, SHORT "
## [361] "FLAMEFISH "	"TWO SPOT CARDINALFISH "	"PERCHES **"
## [365] "TILEFISHES **"	"WHITEFISH, OCEAN "	"TILEFISH, BLACK
## [369] "TILEFISH, BLUELINE "	"TILEFISH, GOLDFACE "	"TILEFISH, GOLD
## [373] "BLUEFISH "	"COBIA "	"REMORA FAMILY *
## [377] "JACKS **"	"JACK MACKEREL "	"SCAD, ROUGH "
## [381] "YELLOW JACK "	"JACK, CREVALLE "	"JACK, HORSE-EYE
## [385] "JACK, BLACK "	"BAR JACK "	"BUMPER, ATLANTIC
## [389] "SCAD, BIGEYE "	"LOOKDOWN "	"MOONFISH, ATLANTIC
## [393] "AMBERJACK, GREATER "	"AMBERJACK, LESSER "	"JACK, ALMACO "
## [397] "YELLOWTAIL JACK "	"POMPAÑO **"	"POMPAÑO, FLORIDA
## [401] "SCADS **"	"SCAD, MACKEREL "	"SCAD, ROUND "
## [405] "BLUNTNOSE JACK "	"PILOTFISH "	"DOLPHIN GENUS *
## [409] "CRIMSON ROVER "	"SNAPPERS **"	"SNAPPER, CUBERA
## [413] "SNAPPER, MUTTON "	"SNAPPER, SCHOOLMASTER "	"SNAPPER, BLACKF
## [417] "SNAPPER, DOG "	"SNAPPER, MAHOGANY "	"SNAPPER CARIBBEA
## [421] "SNAPPER, SILK "	"SNAPPER, BLACK "	"SNAPPER, QUEEN
## [425] "SNAPPER, VERMILION "	"WENCHMAN "	"JOBFISH, GREEN
## [429] "MOJARRAS **"	"IRISH POMPAÑO "	"GRUNTS **"
## [433] "MARGATE "	"GRUNT, FRENCH "	"GRUNT, COTTONWID
## [437] "PIGFISH "	"BLACK MARGATE "	"PORKFISH "
## [441] "EMPERORS **"	"SCUPS OR PORGIES **"	"SCUP "

## [445] "PINFISH "	"SHEEPSHEAD "	"PINFISH, SPOTTED "
## [449] "PORGY, JOLTHEAD "	"PORGY, SAUCEREYE "	"PORGY, WHITEBONNET "
## [453] "PORGY, LITTLEHEAD "	"PORGY, RED "	"DRUMS **"
## [457] "SEATROUT, SPOTTED "	"SILVER SEATROUT "	"SEATROUT, WEAKFISH "
## [461] "CROAKER, PACIFIC WHITE "	"SILVER PERCH "	"SPOT "
## [465] "KINGFISHES **"	"SOUTHERN KINGFISH "	"GULF KINGFISH "
## [469] "CROAKER, ATLANTIC "	"DRUM, BLACK "	"DRUM, RED "
## [473] "SPOTTED DRUM "	"CUBBYU "	"BLACKBAR DRUM "
## [477] "QUEENFISH "	"DRUM, FRESHWATER "	"BASS, WHITE SEA "
## [481] "YELLOW GOATFISH "	"SPOTTED GOATFISH "	"GLASSY SWEEPER "
## [485] "CHUBS, SEA **"	"OPALEYE "	"HALFMOON "
## [489] "BUTTERFLYFISHES **"	"SPOTFIN BUTTERFLYFISH "	"FOUREYE BUTTERFLYFISH "
## [493] "BANDED BUTTERFLYFISH "	"LONGSNOUT BUTTERFLYFISH "	"CHERUBFISH "
## [497] "ROCK BEAUTY "	"BLUE ANGELFISH "	"GRAY ANGELFISH "
## [501] "LEAFFISH, AFRICAN "	"SURFPERCHES **"	"TILAPIAS **"
## [505] "SERGEANT MAJOR "	"BLUE CHROMIS "	"SUNSHINEFISH "
## [509] "BLACKSMITH "	"PURPLE REEFFISH "	"YELLOWTAIL DAMSEL "
## [513] "POMFRETS, UNCLASSIFIED **"	"BIGSCALE POMFRET "	"MULLET **"
## [517] "MULLET, WHITE "	"BARRACUDAS **"	"BARRACUDA GENUS "
## [521] "THREADFINS **"	"WRASSE FAMILY **"	"TAUTOG "
## [525] "SPOTFIN HOGFISH "	"SPANISH HOGFISH "	"CREOLE WRASSE "
## [529] "YELLOWHEAD WRASSE "	"CLOWN WRASSE "	"BLACKEAR WRASSE "
## [533] "HOGFISH "	"BLUEHEAD "	"SHEEPHEAD, CALIFORNIA "
## [537] "BLUE PARROTFISH "	"MIDNIGHT PARROTFISH "	"RAINBOW PARROTFISH "
## [541] "QUEEN PARROTFISH "	"REDBAND PARROTFISH "	"STOPLIGHT PARROTFISH "
## [545] "SPOTFIN JAWFISHES **"	"YELLOWHEAD JAWFISH "	"DUSKY JAWFISH "
## [549] "STARGAZER, NORTHERN "	"SOUTHERN STARGAZER "	"COMBTOOTH BLENNY "
## [553] "BARRED BLENNY "	"REDLIP BLENNY "	"WOLFFISH, ATLANTIC "
## [557] "SAILFIN BLENNY "	"HAIRY BLENNY "	"SADDLED BLENNY "
## [561] "MARBLED BLENNY "	"WRASSE BLENNY "	"PRICKLEBACK, MOROCCO "
## [565] "AMERICAN SAND LANCE "	"DRAGONETS **"	"GOBY FAMILY **"
## [569] "VIOLET GOBY "	"MUDSUCKER, LONGJAW "	"SLEEPER FAMILY "
## [573] "OCEAN SURGEON "	"DOCTORFISH "	"BLUE TANG "
## [577] "BONEFISH "	"OILFISH "	"CUTLASSFISHES **"
## [581] "TUNA, SKIPJACK "	"TUNA, LITTLE TUNNY "	"TUNA, KAWAKAWA "
## [585] "BONITO, PACIFIC "	"BONITO, ATLANTIC "	"MACKEREL (SCOMBIDAE) "
## [589] "MACKEREL, ATLANTIC CHUB "	"MACKEREL, ATLANTIC "	"TUNAS **"
## [593] "TUNA, BLUEFIN "	"TUNA, BLUEFIN PACIFIC "	"TUNA, YELLOWFIN "
## [597] "TUNA, BIGEYE "	"MACKEREL, KING AND CERO **"	"MACKEREL, KING "
## [601] "MACKEREL, CERO "	"PACIFIC SIERRA "	"WAHOO "
## [605] "SWORDFISH "	"BILLFISHES **"	"SAILFISH "
## [609] "SPEARFISHES **"	"BARRELFISH "	"BLACK DRIFTFISH "
## [613] "POMPAÑO, PACIFIC "	"HARVESTFISH "	"BUTTERFISH "
## [617] "FLATFISH **"	"FLOUNDER, PACIFIC, SANDDAB **"	"FLOUNDER, PACIFIC "
## [621] "FLOUNDERS **"	"FLOUNDER, SUMMER "	"FLOUNDER, GULF "
## [625] "FLOUNDER, FOURSPOT "	"HALIBUT, CALIFORNIA "	"FLOUNDER, WINDOWPANE "
## [629] "FLOUNDERS, RIGHTEYE **"	"FLOUNDER, ARROWTOOTH "	"SOLE, PETRALE "
## [633] "FLOUNDER, WITCH "	"SOLE, FLATHEAD "	"FLOUNDER, AMERICAN "
## [637] "FLOUNDER, STARRY "	"FLOUNDER, WINTER "	"SOLE, YELLOWFIN "
## [641] "SOLE, BUTTER "	"SOLE, ENGLISH "	"SOLE, C-O "
## [645] "TURBOT, HORNHEAD "	"SOLE, SAND "	"HALIBUT, GREENLAND "
## [649] "HALIBUT, ATLANTIC "	"TURBOT, DIAMOND "	"SOLE, REX "
## [653] "HOGCHOKER "	"GYMNACHIRUS **"	"SOLE, ROCK "
## [657] "UNICORN FILEFISH "	"SCRAWLED FILEFISH "	"TRIGGERFISH, GRASS "

## [661]	"FILEFISH, PYGMY "	"WHITESPOTTED FILEFISH "	"ORANGESPOTTED F
## [665]	"BLACK DURGON "	"FILEFISH **"	"BOXFISHES **"
## [669]	"SPOTTED TRUNKFISH "	"SCRAWLED COWFISH "	"HONEYCOMB COWFI
## [673]	"SMOOTH PUFFER "	"PUFFER GENUS **"	"PUFFER, NOTHERN
## [677]	"SHARPNOSE PUFFER "	"BURRFISH GENUS **"	"PORCUPINEFISH "
## [681]	"OCEAN SUNFISH "	"GRAYSBY "	"GAR, ALLIGATOR
## [685]	"HERRING, PACIFIC "	"OPHIDIIFORMS **"	"ANCHOVIES **"
## [689]	"ANGELFISH FAMILY **"	"WHITE SUCKER "	"SKATE **"
## [693]	"SKATE, LITTLE "	"SKATE, ROSETTE "	"SKATE, BARNDOR
## [697]	"SKATE, THORNEY "	"SKATE, SMOOTH "	"WHITE GRUNT "
## [701]	"YELLOWTAIL REEFISH "	"STRIPED PARROTFISH "	"BEAUGREGORY "
## [705]	"COCOA DAMSELFISH "	"BICOLOR DAMSELFISH "	"DUSKY DAMSELFISH
## [709]	"STRIPED BURRFISH "	"ROUGHY, BIG "	"YELLOW STINGRAY
## [713]	"REEF SQUIRRELFISH "	"HERRING, LAKE OR CISCO "	"OCEAN POUT "
## [717]	"TIGER GOBY "	"NEON GOBY "	"GLASS BLENNY "
## [721]	"ROUGH TONGUE BASS "	"PIPEFISHES **"	"KYPHOSUS SECTAT
## [725]	"BANK BUTTERFLYFISH "	"GUYANA BUTTERFLYFISH "	"GREAT BARRACUDA
## [729]	"CABEZON "		

Where are there negative values?

X	Tsn	Year	State	AFS.Name	Pounds	Dollars	Collection	Confidentiality	category.tax
51314	165647	2014	New Jersey	MUMMICHOG	-321	-4494	Commercial	Public	Actinopteryg
72470	168791	2014	Connecticut	DOLPHINFISH	-1	-2	Commercial	Public	Actinopteryg

Where are there negative values?

X	Tsn	Year	State	AFS.Name	Pounds	Dollars	Collection	Confidentiality
429	11272	2017	Rhode Island	SEAWEED, KELP **	-1	7390	Commercial	Public
6543	79916	2015	New York	MUSSEL, SLIPPERSHELL	-1	NA	Commercial	Public
8386	81495	2010	Maryland	CLAM, QUAHOG **	-29	1506	Commercial	Public
25465	160502	2009	Virginia	SHARK, BONNETHEAD	-5	1011	Commercial	Public
28827	161030	2007	New Jersey	FINFISH **	-8	NA	Commercial	Public
51314	165647	2014	New Jersey	MUMMICHOG	-321	-4494	Commercial	Public
72470	168791	2014	Connecticut	DOLPHINFISH	-1	-2	Commercial	Public
92811	172412	2014	Connecticut	MACKEREL, CHUB	-1	NA	Commercial	Public
111150	551570	2017	Connecticut	SHRIMP, BROWN	-1	229	Commercial	Public