

```
#C #####
#C # Halibut data file for 2019
#C # Areas-as-fleets short time-series model
#C # Survey and fishery are partitioned by Region
#C #####
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```
### Global settings ###
```

```
1992 # Start year
2019 # End year
1 # Number of seasons
12 # Months per season
2 # Number of subseasons for calculations
1 # Spawning month
2 # Number of sexes
30 # Number of ages
1 # Number of areas
12 # Number of fleets
```

```
#C ### Fleet definitions
```

# fleettype	timing	area	catchunits	catchmult	fleetname
1	-1	1	1	0	R2Commercial
1	-1	1	1	0	R3Commercial
1	-1	1	1	0	R4Commercial
1	-1	1	1	0	R4BCommercial
1	-1	1	1	0	Discards
1	-1	1	1	0	Non_directed_discards
1	-1	1	1	0	Recreational
1	-1	1	1	0	Subsistence
3	1	1	2	0	R2Survey
3	1	1	2	0	R3Survey
3	1	1	2	0	R4Survey
3	1	1	2	0	R4BSurvey

```
#C ### Catch section ###
```

```
#C # Halibut catch in thousands of lbs - this is NOT metric tons!!
# Mortality estimates updated 2019
```

# Year	season	fleet	catch	catchSE	#	name
1992	1	1	18239	0.01	#	R2Commercial
1993	1	1	22741	0.01	#	R2Commercial
1994	1	1	20939	0.01	#	R2Commercial
1995	1	1	17837	0.01	#	R2Commercial
1996	1	1	18855	0.01	#	R2Commercial
1997	1	1	22891	0.01	#	R2Commercial
1998	1	1	23986	0.01	#	R2Commercial
1999	1	1	23474	0.01	#	R2Commercial
2000	1	1	19876	0.01	#	R2Commercial
2001	1	1	19473	0.01	#	R2Commercial
2002	1	1	21627	0.01	#	R2Commercial
2003	1	1	21117	0.01	#	R2Commercial
2004	1	1	23378	0.01	#	R2Commercial
2005	1	1	23863	0.01	#	R2Commercial
2006	1	1	23424	0.01	#	R2Commercial
2007	1	1	19126	0.01	#	R2Commercial

2008	1	1	14701	0.01	#	R2Commercial
2009	1	1	12130	0.01	#	R2Commercial
2010	1	1	11684	0.01	#	R2Commercial
2011	1	1	9742	0.01	#	R2Commercial
2012	1	1	9310	0.01	#	R2Commercial
2013	1	1	9684	0.01	#	R2Commercial
2014	1	1	9884	0.01	#	R2Commercial
2015	1	1	10378	0.01	#	R2Commercial
2016	1	1	10838	0.01	#	R2Commercial
2017	1	1	11227	0.01	#	R2Commercial
2018	1	1	9807	0.01	#	R2Commercial
2019	1	1	9784	0.01	#	R2Commercial
1992	1	2	36424	0.01	#	R3Commercial
1993	1	2	31127	0.01	#	R3Commercial
1994	1	2	29869	0.01	#	R3Commercial
1995	1	2	21792	0.01	#	R3Commercial
1996	1	2	23674	0.01	#	R3Commercial
1997	1	2	33988	0.01	#	R3Commercial
1998	1	2	37207	0.01	#	R3Commercial
1999	1	2	39407	0.01	#	R3Commercial
2000	1	2	34925	0.01	#	R3Commercial
2001	1	2	38035	0.01	#	R3Commercial
2002	1	2	40710	0.01	#	R3Commercial
2003	1	2	40189	0.01	#	R3Commercial
2004	1	2	40780	0.01	#	R3Commercial
2005	1	2	39353	0.01	#	R3Commercial
2006	1	2	36600	0.01	#	R3Commercial
2007	1	2	35867	0.01	#	R3Commercial
2008	1	2	35369	0.01	#	R3Commercial
2009	1	2	32617	0.01	#	R3Commercial
2010	1	2	30692	0.01	#	R3Commercial
2011	1	2	22055	0.01	#	R3Commercial
2012	1	2	17137	0.01	#	R3Commercial
2013	1	2	15225	0.01	#	R3Commercial
2014	1	2	10626	0.01	#	R3Commercial
2015	1	2	10711	0.01	#	R3Commercial
2016	1	2	10334	0.01	#	R3Commercial
2017	1	2	10949	0.01	#	R3Commercial
2018	1	2	10039	0.01	#	R3Commercial
2019	1	2	10471	0.01	#	R3Commercial
1992	1	3	4410	0.01	#	R4Commercial
1993	1	3	4386	0.01	#	R4Commercial
1994	1	3	3445	0.01	#	R4Commercial
1995	1	3	3123	0.01	#	R4Commercial
1996	1	3	3274	0.01	#	R4Commercial
1997	1	3	5499	0.01	#	R4Commercial
1998	1	3	6239	0.01	#	R4Commercial
1999	1	3	8372	0.01	#	R4Commercial
2000	1	3	9208	0.01	#	R4Commercial
2001	1	3	9067	0.01	#	R4Commercial
2002	1	3	8662	0.01	#	R4Commercial
2003	1	3	8339	0.01	#	R4Commercial
2004	1	3	6541	0.01	#	R4Commercial
2005	1	3	6922	0.01	#	R4Commercial

2006	1	3	6589	0.01	#	R4Commercial
2007	1	3	6699	0.01	#	R4Commercial
2008	1	3	6917	0.01	#	R4Commercial
2009	1	3	5865	0.01	#	R4Commercial
2010	1	3	5666	0.01	#	R4Commercial
2011	1	3	5815	0.01	#	R4Commercial
2012	1	3	3936	0.01	#	R4Commercial
2013	1	3	3025	0.01	#	R4Commercial
2014	1	3	2173	0.01	#	R4Commercial
2015	1	3	2580	0.01	#	R4Commercial
2016	1	3	2877	0.01	#	R4Commercial
2017	1	3	2942	0.01	#	R4Commercial
2018	1	3	2702	0.01	#	R4Commercial
2019	1	3	3105	0.01	#	R4Commercial
1992	1	4	2365	0.01	#	R4BCommercial
1993	1	4	1995	0.01	#	R4BCommercial
1994	1	4	2057	0.01	#	R4BCommercial
1995	1	4	1697	0.01	#	R4BCommercial
1996	1	4	2110	0.01	#	R4BCommercial
1997	1	4	3362	0.01	#	R4BCommercial
1998	1	4	2919	0.01	#	R4BCommercial
1999	1	4	3612	0.01	#	R4BCommercial
2000	1	4	4745	0.01	#	R4BCommercial
2001	1	4	4510	0.01	#	R4BCommercial
2002	1	4	4124	0.01	#	R4BCommercial
2003	1	4	3883	0.01	#	R4BCommercial
2004	1	4	2738	0.01	#	R4BCommercial
2005	1	4	1988	0.01	#	R4BCommercial
2006	1	4	1597	0.01	#	R4BCommercial
2007	1	4	1429	0.01	#	R4BCommercial
2008	1	4	1787	0.01	#	R4BCommercial
2009	1	4	1627	0.01	#	R4BCommercial
2010	1	4	1843	0.01	#	R4BCommercial
2011	1	4	2075	0.01	#	R4BCommercial
2012	1	4	1747	0.01	#	R4BCommercial
2013	1	4	1257	0.01	#	R4BCommercial
2014	1	4	1128	0.01	#	R4BCommercial
2015	1	4	1113	0.01	#	R4BCommercial
2016	1	4	1115	0.01	#	R4BCommercial
2017	1	4	1098	0.01	#	R4BCommercial
2018	1	4	1073	0.01	#	R4BCommercial
2019	1	4	1002	0.01	#	R4BCommercial
1992	1	5	1253	0.01	#	Discards
1993	1	5	1233	0.01	#	Discards
1994	1	5	1218	0.01	#	Discards
1995	1	5	677	0.01	#	Discards
1996	1	5	821	0.01	#	Discards
1997	1	5	1233	0.01	#	Discards
1998	1	5	1376	0.01	#	Discards
1999	1	5	1257	0.01	#	Discards
2000	1	5	1205	0.01	#	Discards
2001	1	5	1434	0.01	#	Discards
2002	1	5	1446	0.01	#	Discards
2003	1	5	1882	0.01	#	Discards

2004	1	5	2147	0.01	#	Discards
2005	1	5	1940	0.01	#	Discards
2006	1	5	2354	0.01	#	Discards
2007	1	5	2462	0.01	#	Discards
2008	1	5	2652	0.01	#	Discards
2009	1	5	2862	0.01	#	Discards
2010	1	5	3158	0.01	#	Discards
2011	1	5	2386	0.01	#	Discards
2012	1	5	1623	0.01	#	Discards
2013	1	5	1374	0.01	#	Discards
2014	1	5	1263	0.01	#	Discards
2015	1	5	1264	0.01	#	Discards
2016	1	5	1151	0.01	#	Discards
2017	1	5	969	0.01	#	Discards
2018	1	5	782	0.01	#	Discards
2019	1	5	898	0.01	#	Discards
1992	1	6	20293	0.01	#	Non-directed discards
1993	1	6	15964	0.01	#	Non-directed discards
1994	1	6	16952	0.01	#	Non-directed discards
1995	1	6	15932	0.01	#	Non-directed discards
1996	1	6	14464	0.01	#	Non-directed discards
1997	1	6	13513	0.01	#	Non-directed discards
1998	1	6	13158	0.01	#	Non-directed discards
1999	1	6	13544	0.01	#	Non-directed discards
2000	1	6	13022	0.01	#	Non-directed discards
2001	1	6	12875	0.01	#	Non-directed discards
2002	1	6	12086	0.01	#	Non-directed discards
2003	1	6	12069	0.01	#	Non-directed discards
2004	1	6	12050	0.01	#	Non-directed discards
2005	1	6	12736	0.01	#	Non-directed discards
2006	1	6	11508	0.01	#	Non-directed discards
2007	1	6	11358	0.01	#	Non-directed discards
2008	1	6	10911	0.01	#	Non-directed discards
2009	1	6	10588	0.01	#	Non-directed discards
2010	1	6	9747	0.01	#	Non-directed discards
2011	1	6	8501	0.01	#	Non-directed discards
2012	1	6	9293	0.01	#	Non-directed discards
2013	1	6	8926	0.01	#	Non-directed discards
2014	1	6	9080	0.01	#	Non-directed discards
2015	1	6	7607	0.01	#	Non-directed discards
2016	1	6	7159	0.01	#	Non-directed discards
2017	1	6	6213	0.01	#	Non-directed discards
2018	1	6	6109	0.01	#	Non-directed discards
2019	1	6	6436	0.01	#	Non-directed discards
1992	1	7	6179	0.01	#	Recreational
1993	1	7	7725	0.01	#	Recreational
1994	1	7	7065	0.01	#	Recreational
1995	1	7	7462	0.01	#	Recreational
1996	1	7	8083	0.01	#	Recreational
1997	1	7	9025	0.01	#	Recreational
1998	1	7	8586	0.01	#	Recreational
1999	1	7	7379	0.01	#	Recreational
2000	1	7	9009	0.01	#	Recreational
2001	1	7	8104	0.01	#	Recreational

2002	1	7	8012	0.01	#	Recreational
2003	1	7	9347	0.01	#	Recreational
2004	1	7	10707	0.01	#	Recreational
2005	1	7	10863	0.01	#	Recreational
2006	1	7	10196	0.01	#	Recreational
2007	1	7	11465	0.01	#	Recreational
2008	1	7	10679	0.01	#	Recreational
2009	1	7	8791	0.01	#	Recreational
2010	1	7	7853	0.01	#	Recreational
2011	1	7	7104	0.01	#	Recreational
2012	1	7	6784	0.01	#	Recreational
2013	1	7	7633	0.01	#	Recreational
2014	1	7	7184	0.01	#	Recreational
2015	1	7	7456	0.01	#	Recreational
2016	1	7	7376	0.01	#	Recreational
2017	1	7	7596	0.01	#	Recreational
2018	1	7	6923	0.01	#	Recreational
2019	1	7	6921	0.01	#	Recreational
1992	1	8	1114	0.01	#	Subsistence
1993	1	8	932	0.01	#	Subsistence
1994	1	8	927	0.01	#	Subsistence
1995	1	8	650	0.01	#	Subsistence
1996	1	8	651	0.01	#	Subsistence
1997	1	8	713	0.01	#	Subsistence
1998	1	8	740	0.01	#	Subsistence
1999	1	8	744	0.01	#	Subsistence
2000	1	8	756	0.01	#	Subsistence
2001	1	8	772	0.01	#	Subsistence
2002	1	8	771	0.01	#	Subsistence
2003	1	8	1375	0.01	#	Subsistence
2004	1	8	1547	0.01	#	Subsistence
2005	1	8	1537	0.01	#	Subsistence
2006	1	8	1478	0.01	#	Subsistence
2007	1	8	1486	0.01	#	Subsistence
2008	1	8	1343	0.01	#	Subsistence
2009	1	8	1307	0.01	#	Subsistence
2010	1	8	1238	0.01	#	Subsistence
2011	1	8	1144	0.01	#	Subsistence
2012	1	8	1144	0.01	#	Subsistence
2013	1	8	1131	0.01	#	Subsistence
2014	1	8	1203	0.01	#	Subsistence
2015	1	8	1204	0.01	#	Subsistence
2016	1	8	1167	0.01	#	Subsistence
2017	1	8	1167	0.01	#	Subsistence
2018	1	8	1059	0.01	#	Subsistence
2019	1	8	1056	0.01	#	Subsistence

-9999 0 0 0 0 # End catch data

#C Survey and CPUE setup

# Units: 0 = numbers, 1 = biomass, 2 = F, >=30 special types

# Error distribution: -1 = normal, 0 = lognormal, >0 = T-with DF

# SD report: 0=don't report, 1=report variance on predictions

# Fleet Units Errordist SDrep # Name

1 1 0 1 # R2Commercial

2	1	0	1	# R3Commercial
3	1	0	1	# R4Commercial
4	1	0	1	# R4BCommercial
5	1	0	0	# Discards
6	1	0	0	# Non-directed discards
7	1	0	0	# Recreational
8	1	0	0	# Subsistence
9	0	0	1	# R2Survey
10	0	0	1	# R3Survey
11	0	0	1	# R4Survey
12	0	0	1	# R4BSurvey

# Survey and CPUE observations

# Yr Month Fleet Obs log(SE) # Name

### Region 2 Commercial WPUE updated 2019

1992	1007	1	167.66	0.04	# R2Commercial
1993	1007	1	200.04	0.031	# R2Commercial
1994	1007	1	175.74	0.027	# R2Commercial
1995	1007	1	190.73	0.025	# R2Commercial
1996	1007	1	208.81	0.042	# R2Commercial
1997	1007	1	237.52	0.035	# R2Commercial
1998	1007	1	221.23	0.029	# R2Commercial
1999	1007	1	249.48	0.079	# R2Commercial
2000	1007	1	230.01	0.036	# R2Commercial
2001	1007	1	202.84	0.039	# R2Commercial
2002	1007	1	214.81	0.032	# R2Commercial
2003	1007	1	208.95	0.018	# R2Commercial
2004	1007	1	192.88	0.028	# R2Commercial
2005	1007	1	178.98	0.024	# R2Commercial
2006	1007	1	180.22	0.024	# R2Commercial
2007	1007	1	158.14	0.023	# R2Commercial
2008	1007	1	138.83	0.02	# R2Commercial
2009	1007	1	152.95	0.02	# R2Commercial
2010	1007	1	185.21	0.037	# R2Commercial
2011	1007	1	179.95	0.019	# R2Commercial
2012	1007	1	193.96	0.02	# R2Commercial
2013	1007	1	192.78	0.026	# R2Commercial
2014	1007	1	210.44	0.026	# R2Commercial
2015	1007	1	217.37	0.024	# R2Commercial
2016	1007	1	212.66	0.019	# R2Commercial
2017	1007	1	213.49	0.02	# R2Commercial
2018	1007	1	197.07	0.026	# R2Commercial
2019	1007	1	191.04	0.063	# R2Commercial

### Region 3 Commercial WPUE updated 2019

1992	1007	2	413.39	0.048	# R3Commercial
1993	1007	2	439.11	0.096	# R3Commercial
1994	1007	2	362.77	0.049	# R3Commercial
1995	1007	2	439.48	0.043	# R3Commercial
1996	1007	2	505.01	0.046	# R3Commercial
1997	1007	2	498.02	0.026	# R3Commercial
1998	1007	2	512.59	0.036	# R3Commercial
1999	1007	2	475.49	0.024	# R3Commercial
2000	1007	2	494.83	0.026	# R3Commercial
2001	1007	2	454.52	0.029	# R3Commercial

2002	1007	2	466.46	0.025	# R3Commercial
2003	1007	2	439.27	0.024	# R3Commercial
2004	1007	2	425.79	0.026	# R3Commercial
2005	1007	2	387.69	0.023	# R3Commercial
2006	1007	2	360.7	0.022	# R3Commercial
2007	1007	2	344.27	0.026	# R3Commercial
2008	1007	2	318.17	0.024	# R3Commercial
2009	1007	2	277.22	0.02	# R3Commercial
2010	1007	2	242.32	0.024	# R3Commercial
2011	1007	2	226.65	0.025	# R3Commercial
2012	1007	2	213.46	0.032	# R3Commercial
2013	1007	2	189.98	0.033	# R3Commercial
2014	1007	2	182.93	0.039	# R3Commercial
2015	1007	2	224.46	0.045	# R3Commercial
2016	1007	2	216.22	0.044	# R3Commercial
2017	1007	2	219.6	0.037	# R3Commercial
2018	1007	2	190.74	0.056	# R3Commercial
2019	1007	2	217.55	0.083	# R3Commercial

# Region 4 Commercial CPUE updated 2019

1992	1007	3	324.01	0.117	# R4Commercial
1993	1007	3	399.87	0.448	# R4Commercial
1994	1007	3	343.14	0.333	# R4Commercial
1995	1007	3	330.22	0.1	# R4Commercial
1996	1007	3	427.58	0.138	# R4Commercial
1997	1007	3	417.44	0.107	# R4Commercial
1998	1007	3	411.86	0.089	# R4Commercial
1999	1007	3	385.64	0.061	# R4Commercial
2000	1007	3	406.43	0.084	# R4Commercial
2001	1007	3	363	0.213	# R4Commercial
2002	1007	3	296.56	0.082	# R4Commercial
2003	1007	3	251.12	0.072	# R4Commercial
2004	1007	3	235.23	0.072	# R4Commercial
2005	1007	3	219.59	0.063	# R4Commercial
2006	1007	3	178.26	0.064	# R4Commercial
2007	1007	3	154.65	0.055	# R4Commercial
2008	1007	3	162.55	0.071	# R4Commercial
2009	1007	3	174.43	0.055	# R4Commercial
2010	1007	3	143.97	0.08	# R4Commercial
2011	1007	3	143.25	0.056	# R4Commercial
2012	1007	3	139.17	0.08	# R4Commercial
2013	1007	3	122.7	0.072	# R4Commercial
2014	1007	3	116.04	0.092	# R4Commercial
2015	1007	3	136.04	0.065	# R4Commercial
2016	1007	3	128.3	0.066	# R4Commercial
2017	1007	3	126.95	0.079	# R4Commercial
2018	1007	3	115.66	0.058	# R4Commercial
2019	1007	3	105.19	0.231	# R4Commercial

# Region 4B Commercial CPUE updated 2019

1992	1007	4	280	0.095	# R4BCommercial
1993	1007	4	218	0.22	# R4BCommercial
1994	1007	4	197	0.101	# R4BCommercial
1995	1007	4	189	0.336	# R4BCommercial
1996	1007	4	269	0.185	# R4BCommercial
1997	1007	4	275	0.064	# R4BCommercial

1998	1007	4	287	0.058	# R4BCommercial
1999	1007	4	310	0.045	# R4BCommercial
2000	1007	4	320	0.048	# R4BCommercial
2001	1007	4	270	0.076	# R4BCommercial
2002	1007	4	245	0.081	# R4BCommercial
2003	1007	4	196	0.068	# R4BCommercial
2004	1007	4	202	0.061	# R4BCommercial
2005	1007	4	238	0.093	# R4BCommercial
2006	1007	4	218	0.111	# R4BCommercial
2007	1007	4	230	0.108	# R4BCommercial
2008	1007	4	193	0.069	# R4BCommercial
2009	1007	4	189	0.097	# R4BCommercial
2010	1007	4	142	0.063	# R4BCommercial
2011	1007	4	165	0.103	# R4BCommercial
2012	1007	4	149	0.066	# R4BCommercial
2013	1007	4	127	0.064	# R4BCommercial
2014	1007	4	146	0.07	# R4BCommercial
2015	1007	4	149	0.076	# R4BCommercial
2016	1007	4	123	0.083	# R4BCommercial
2017	1007	4	120	0.082	# R4BCommercial
2018	1007	4	134	0.071	# R4BCommercial
2019	1007	4	120	0.232	# R4BCommercial

# Survey NPUE Region 2 updated 2019

1993	7	9	6.26	0.095	# R2Survey
1994	7	9	7.39	0.102	# R2Survey
1995	7	9	8.70	0.072	# R2Survey
1996	7	9	7.77	0.058	# R2Survey
1997	7	9	7.18	0.055	# R2Survey
1998	7	9	6.13	0.057	# R2Survey
1999	7	9	5.12	0.055	# R2Survey
2000	7	9	5.62	0.055	# R2Survey
2001	7	9	6.50	0.051	# R2Survey
2002	7	9	6.46	0.052	# R2Survey
2003	7	9	5.56	0.054	# R2Survey
2004	7	9	5.14	0.053	# R2Survey
2005	7	9	5.59	0.052	# R2Survey
2006	7	9	5.54	0.054	# R2Survey
2007	7	9	6.14	0.053	# R2Survey
2008	7	9	6.15	0.052	# R2Survey
2009	7	9	6.26	0.052	# R2Survey
2010	7	9	6.26	0.051	# R2Survey
2011	7	9	6.27	0.05	# R2Survey
2012	7	9	7.27	0.05	# R2Survey
2013	7	9	7.08	0.05	# R2Survey
2014	7	9	7.32	0.048	# R2Survey
2015	7	9	8.08	0.047	# R2Survey
2016	7	9	8.18	0.048	# R2Survey
2017	7	9	5.95	0.048	# R2Survey
2018	7	9	5.23	0.045	# R2Survey
2019	7	9	5.47	0.048	# R2Survey

# Survey NPUE Region 3 updated 2019

1993	7	10	24.10	0.124	# R3Survey
1994	7	10	23.90	0.097	# R3Survey
1995	7	10	25.51	0.089	# R3Survey

1996 7	10	26.22	0.062	# R3Survey
1997 7	10	28.26	0.058	# R3Survey
1998 7	10	24.41	0.061	# R3Survey
1999 7	10	23.82	0.061	# R3Survey
2000 7	10	25.75	0.055	# R3Survey
2001 7	10	22.50	0.055	# R3Survey
2002 7	10	24.89	0.05	# R3Survey
2003 7	10	24.59	0.054	# R3Survey
2004 7	10	27.56	0.052	# R3Survey
2005 7	10	23.29	0.051	# R3Survey
2006 7	10	21.98	0.051	# R3Survey
2007 7	10	23.54	0.052	# R3Survey
2008 7	10	21.36	0.053	# R3Survey
2009 7	10	20.06	0.054	# R3Survey
2010 7	10	20.19	0.052	# R3Survey
2011 7	10	20.61	0.051	# R3Survey
2012 7	10	21.01	0.049	# R3Survey
2013 7	10	16.23	0.049	# R3Survey
2014 7	10	19.14	0.046	# R3Survey
2015 7	10	19.46	0.047	# R3Survey
2016 7	10	19.53	0.047	# R3Survey
2017 7	10	13.90	0.045	# R3Survey
2018 7	10	12.84	0.044	# R3Survey
2019 7	10	11.55	0.049	# R3Survey

# Survey NPUE Region 4 updated 2019

1993 7	11	1.80	0.153	# R4Survey
1994 7	11	2.07	0.126	# R4Survey
1995 7	11	2.10	0.122	# R4Survey
1996 7	11	2.37	0.101	# R4Survey
1997 7	11	2.63	0.066	# R4Survey
1998 7	11	2.73	0.067	# R4Survey
1999 7	11	2.36	0.07	# R4Survey
2000 7	11	2.50	0.066	# R4Survey
2001 7	11	2.31	0.066	# R4Survey
2002 7	11	2.21	0.068	# R4Survey
2003 7	11	2.06	0.068	# R4Survey
2004 7	11	2.03	0.067	# R4Survey
2005 7	11	2.06	0.07	# R4Survey
2006 7	11	2.10	0.062	# R4Survey
2007 7	11	2.06	0.064	# R4Survey
2008 7	11	2.41	0.068	# R4Survey
2009 7	11	2.41	0.065	# R4Survey
2010 7	11	2.26	0.06	# R4Survey
2011 7	11	2.16	0.061	# R4Survey
2012 7	11	2.19	0.055	# R4Survey
2013 7	11	1.96	0.054	# R4Survey
2014 7	11	2.03	0.05	# R4Survey
2015 7	11	2.03	0.054	# R4Survey
2016 7	11	1.86	0.059	# R4Survey
2017 7	11	1.72	0.061	# R4Survey
2018 7	11	1.60	0.064	# R4Survey
2019 7	11	1.64	0.075	# R4Survey

# Survey NPUE Region 4B updated 2019

1993 7	12	9.91	0.313	# R4BSurvey
--------	----	------	-------	-------------

```

1994 7      12      10.13  0.281 # R4BSurvey
1995 7      12      10.4   0.235 # R4BSurvey
1996 7      12      10.66  0.183 # R4BSurvey
1997 7      12      10.91  0.107 # R4BSurvey
1998 7      12      11.02  0.116 # R4BSurvey
1999 7      12      9.42   0.137 # R4BSurvey
2000 7      12      8.63   0.17   # R4BSurvey
2001 7      12      6.71   0.172 # R4BSurvey
2002 7      12      4.87   0.21   # R4BSurvey
2003 7      12      4.01   0.22   # R4BSurvey
2004 7      12      3.71   0.21   # R4BSurvey
2005 7      12      3.56   0.208 # R4BSurvey
2006 7      12      4.15   0.191 # R4BSurvey
2007 7      12      5.29   0.18   # R4BSurvey
2008 7      12      5.12   0.175 # R4BSurvey
2009 7      12      4.33   0.192 # R4BSurvey
2010 7      12      4.05   0.199 # R4BSurvey
2011 7      12      4.07   0.184 # R4BSurvey
2012 7      12      3.68   0.181 # R4BSurvey
2013 7      12      4.99   0.144 # R4BSurvey
2014 7      12      4.47   0.152 # R4BSurvey
2015 7      12      4.45   0.157 # R4BSurvey
2016 7      12      4.96   0.138 # R4BSurvey
2017 7      12      3.97   0.091 # R4BSurvey
2018 7      12      4.10   0.146 # R4BSurvey
2019 7      12      4.20 0.197 # R4BSurvey
-9999 1  1 1 1 # End of CPUE data marker

```

# Data setup

```

0 # Number of fleets with discard data
0 # Use mean body weight obs: 0=no, 1=yes
2 # Length bin method: 1=use databins, 2=generate from binwidth,min,max below, 3=read vector
10 # Bin width for population size comp
10 # Minimum size in the population (lower edge of first bin and size at age 0.00)
250 # Maximum size in the population (lower edge of last bin)
0 # Use length composition data: 0=no, 1=yes

```

# Age composition data setup

```

24 # Number of age data bins

```

# age data bins

```

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

```

```

2 # Number of ageing error definitions

```

# Ageing error definitions

# 1 - Break-and-bake

```

0.50 1.50 2.50 3.50 4.50 5.50 6.50 7.50 8.50 9.50 10.50 11.50 12.50 13.50 14.50 15.50 16.50
17.50 18.50 19.50 20.50 21.50 22.50 23.50 24.50 25.50 26.50 27.50 28.50
29.50 30.50

```

```

0.00 0.00 0.00 0.00 0.19 0.29 0.38 0.47 0.55 0.62 0.68 0.74 0.79 0.84 0.88 0.92 0.95 0.98 1.01 1.04 1.06 1.08 1.10 1.12
1.13 1.15 1.16 1.17 1.18 1.19 1.20

```

# 2 - Surface from re-ageing

```

0.50 1.50 2.50 3.50 4.40 5.30 6.26 7.30 8.32 9.32 10.28 11.23 12.15 13.04 13.91 14.77 15.59
16.40 17.19 17.96 18.70 19.43 20.14 20.83 21.51 22.16 22.80 23.43 24.03
24.63 25.20

```

```

0.03 0.03 0.03 0.03 0.03 0.33 0.35 0.37 0.39 0.42 0.56 0.70 0.83 0.95 1.09 1.23 1.38 1.54 1.72 1.90 2.10 2.30 2.50 2.71

```

2.92 3.13 3.33 3.54 3.74 3.94 4.13

# Bin compression and error structure for age data by fleet

# tailcomp constadded combineMF compressbins errordist Dirparnum minsampsize

0.001	0.0001	0	0	0	0	1	# R2Commercial
0.001	0.0001	0	0	0	0	1	# R3Commercial
0.001	0.0001	0	0	0	0	1	# R4Commercial
0.001	0.0001	0	0	0	0	1	# R4BCommercial
0.001	0.0001	0	0	0	0	1	# Discards
0.001	0.0001	0	0	0	0	1	# Non-directed discards
0.001	0.0001	0	0	0	0	1	# Recreational
0.001	0.0001	0	0	0	0	1	# Subsistence
0.001	0.0001	0	0	0	0	1	# R2Survey
0.001	0.0001	0	0	0	0	1	# R3Survey
0.001	0.0001	0	0	0	0	1	# R4Survey
0.001	0.0001	0	0	0	0	1	# R4BSurvey

1 # Length bins for age data method: 1=poplenbins; 2=datalenbins; 3=raw lengths

### Age composition data ###

# Yr Month Flt Sex Part Ageerr Lbin\_lo Lbin\_hi Nsamp datavector(female-male)

# R2 Commercial fishery sexes-aggregated catch-at-age updated 2019

1992	1007	1	0	0	2	-1	-1	1027	0	0	5e-04	0.0011	0.0054	0.0336	0.0826	0.1099	0.1075	0.1184	0.1444	0.1247	0.0886	
0.0734	0.0414	0.0239	0.0176	0.0096	0.0175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	1007	1	0	0	2	-1	-1	959	0	0	2e-04	0.0023	0.0058	0.0123	0.0516	0.1026	0.1444	0.119	0.1337	0.1266	0.1056	0.0641
0.0501	0.029	0.0165	0.0136	0.0227	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	1007	1	0	0	2	-1	-1	896	0	0	6e-04	0.0025	0.0117	0.0187	0.0402	0.0707	0.1082	0.1498	0.1216	0.1197	0.1149	0.0869
0.0572	0.0416	0.0222	0.0112	0.0224	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	1007	1	0	0	2	-1	-1	887	0	0	3e-04	0.0023	0.0128	0.0342	0.0947	0.0811	0.1021	0.142	0.1257	0.0982	0.0885	0.0695
0.0467	0.0354	0.0257	0.0163	0.0245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	1007	1	0	0	2	-1	-1	859	0	0	2e-04	0.0052	0.0256	0.0722	0.1671	0.1144	0.119	0.1373	0.1072	0.0698	0.0596	
0.0411	0.0326	0.0168	0.0133	0.0185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	1007	1	0	0	2	-1	-1	676	0	0	3e-04	0.0117	0.033	0.0801	0.1543	0.2025	0.1105	0.098	0.0904	0.0757	0.0356	0.0342
0.0252	0.0125	0.0106	0.0255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	1007	1	0	0	2	-1	-1	515	0	0	0.0012	0.0024	0.0194	0.0484	0.0918	0.1805	0.2238	0.1042	0.0831	0.0744	0.0503	
0.0278	0.0241	0.0219	0.0149	0.0317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	1007	1	0	0	2	-1	-1	454	0	0	9e-04	0.0052	0.0143	0.0338	0.0728	0.1003	0.179	0.2069	0.0917	0.0723	0.0568	0.043
0.0258	0.0263	0.0203	0.0506	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1007	1	0	0	2	-1	-1	512	0	0	8e-04	0.0022	0.0105	0.0167	0.0396	0.0565	0.1009	0.1332	0.166	0.2082	0.0732	0.0425
0.0382	0.0271	0.0172	0.0134	0.0537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	1007	1	0	0	2	-1	-1	505	0	0	0.0014	0.0023	0.0198	0.0356	0.057	0.0886	0.1214	0.138	0.1868	0.1542	0.0606	
0.0277	0.0291	0.019	0.0153	0.0431	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	1007	1	0	0	1	-1	-1	561	0	0	1e-04	0.0014	0.0101	0.0299	0.0724	0.0585	0.0727	0.0707	0.0911	0.1058	0.1338	0.1546
0.0735	0.0354	0.0244	0.019	0.01	0.0085	0.0071	0.0058	0.005	0.0102	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	1007	1	0	0	1	-1	-1	545	0	0	8e-04	0.0056	0.0115	0.0325	0.0809	0.1309	0.0728	0.0836	0.0889	0.066	0.0968	0.1021
0.1039	0.0471	0.0211	0.017	0.013	0.0076	0.0044	0.0047	0.0025	0.0064	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	1007	1	0	0	1	-1	-1	491	0	0	0.0023	0.017	0.0183	0.03	0.0645	0.1474	0.1517	0.0856	0.0686	0.0645	0.0565	0.0608
0.08	0.0698	0.0309	0.0165	0.0086	0.0077	0.004	0.0043	0.0026	0.0085	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	1007	1	0	0	1	-1	-1	461	0	0	0.0021	0.0136	0.0505	0.0603	0.1037	0.1532	0.1457	0.0964	0.0629	0.058	0.0467	
0.0567	0.0587	0.0424	0.02	0.0094	0.0054	0.0045	0.0028	0.0017	0.0052	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	1007	1	0	0	1	-1	-1	483	0	0	0.0018	0.0108	0.0483	0.0957	0.0932	0.1169	0.1631	0.134	0.0612	0.0441	0.0428	
0.0472	0.038	0.0415	0.0259	0.0131	0.0055	0.0039	0.0046	0.0029	0.0054	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	1007	1	0	0	1	-1	-1	429	0	0	0.0017	0.0055	0.0379	0.1016	0.1248	0.1066	0.1093	0.1361	0.1176	0.0508	0.0381	
0.0307	0.0343	0.0276	0.0273	0.0174	0.0106	0.0056	0.0045	0.002	0.0099	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	1007	1	0	0	1	-1	-1	385	0	0	9e-04	0.0178	0.0601	0.1273	0.1316	0.1203	0.1189	0.116	0.0956	0.0584	0.0327	









2000 1007 5 3 0 2 -1 -1 719 0 0 0 0.0078 0.0265 0.0336 0.0554 0.0645 0.0429 0.0356 0.0317 0.0132 0.0022 6e-04 5e-04 0 0 0 0 0 0 0 0 0 0 0.0056 0.0162 0.0211 0.0501 0.0597 0.084 0.1046 0.1406 0.1268 0.0364 0.0188 0.0137 0.0051 0.0016 1e-04 0.001 0 0 0 0 0

2001 1007 5 3 0 2 -1 -1 716 0 0 0 0.0075 0.0197 0.0418 0.0508 0.0515 0.054 0.0438 0.0227 0.0154 0.0082 0.0015 9e-04 0 0 0.0011 0 0 0 0 0 0 0 0.0057 0.0165 0.039 0.0359 0.0549 0.0618 0.0766 0.1108 0.1179 0.0925 0.0365 0.0214 0.0054 0.0046 5e-04 0.0011 0 0 0 0 0

2002 1007 5 3 0 1 -1 -1 774 0 0 0 0.0051 0.0248 0.0755 0.0849 0.0422 0.0345 0.0339 0.0236 0.006 0.0044 0.0042 1e-04 0 0 1e-04 0 0 0 0 0 0 0 0.0064 0.0138 0.0409 0.0819 0.05 0.0582 0.0595 0.0667 0.0522 0.0618 0.0941 0.0319 0.018 0.008 0.0101 0.003 0.0031 0.001 0 0 0

2003 1007 5 3 0 1 -1 -1 767 0 0 0 0.0088 0.0299 0.0571 0.0763 0.0851 0.0493 0.0239 0.0245 0.0043 0.0067 0.0025 9e-04 0 0 1e-04 0 0 0 0 0 0 0.0066 0.011 0.0386 0.0837 0.0761 0.0616 0.0435 0.0596 0.0484 0.0504 0.0513 0.0504 0.0247 0.0108 0.0052 0.0036 0.0027 7e-04 0.0011 5e-04 0

2004 1007 5 3 0 1 -1 -1 847 0 0 0 0.0185 0.0355 0.0499 0.0721 0.0834 0.0532 0.0162 0.0075 0.004 7e-04 8e-04 0.0016 1e-04 0 0 0 0 0 0 0 0.0087 0.0226 0.0332 0.0668 0.1121 0.0935 0.0451 0.0488 0.047 0.0394 0.0373 0.0333 0.0329 0.0156 0.0065 0.0068 0.0038 9e-04 0 9e-04 0.0011

2005 1007 5 3 0 1 -1 -1 759 0 0 0 0.0098 0.0486 0.069 0.0612 0.0562 0.0662 0.0399 0.0141 0.0052 0.003 0.0023 0.0019 0.0016 0.0016 5e-04 0 0 0 0 0 5e-04 0 0 0.0041 0.0206 0.0487 0.0444 0.0635 0.0906 0.0752 0.0465 0.0448 0.0272 0.0311 0.0315 0.0306 0.0279 0.0131 0.0077 0.0036 0.0038 0.0017 0.001 5e-04

2006 1007 5 3 0 1 -1 -1 919 0 0 0 0.0083 0.0554 0.1158 0.0953 0.057 0.0453 0.0293 0.0128 0.0048 0.002 0.0018 0.0016 4e-04 6e-04 3e-04 5e-04 0 0 0 0 0 0.004 0.0254 0.0595 0.0676 0.0554 0.0558 0.0749 0.0639 0.0339 0.0245 0.0288 0.0175 0.0148 0.0173 0.015 0.0052 0.0025 0.0012 7e-04 5e-04 0

2007 1007 5 3 0 1 -1 -1 928 0 0 0 0.0064 0.0262 0.1032 0.1368 0.0903 0.0434 0.0239 0.0155 0.0079 0.0015 4e-04 1e-04 0 0 2e-04 0 0 0 0 2e-04 0 0 0 0.0036 0.0144 0.0563 0.0749 0.0772 0.0643 0.0581 0.0583 0.0446 0.0182 0.0157 0.0152 0.0133 0.01 0.0079 0.0072 0.0033 0.001 2e-04 0 1e-04

2008 1007 5 3 0 1 -1 -1 965 0 0 0 0.0012 0.0196 0.0496 0.1227 0.1283 0.0944 0.0403 0.0176 0.009 0.0027 0.0043 4e-04 3e-04 1e-04 1e-04 0 0 3e-04 0 0 0 0 7e-04 0.0123 0.0274 0.0613 0.0851 0.0748 0.0528 0.0441 0.0466 0.0306 0.0208 0.0137 0.0086 0.008 0.0052 0.0068 0.0047 0.0026 0.0012 0.001 7e-04

2009 1007 5 3 0 1 -1 -1 972 0 0 0 0.0047 0.0234 0.0665 0.0926 0.1177 0.1139 0.0521 0.0183 0.0067 0.0017 0.0011 3e-04 0 4e-04 0 0 4e-04 0 0 0 0 0 0.0013 0.0117 0.0403 0.0523 0.0724 0.0954 0.0692 0.039 0.0349 0.0294 0.0181 0.0127 0.0068 0.006 0.0023 0.0018 0.0019 0.0032 6e-04 3e-04 6e-04

2010 1007 5 3 0 1 -1 -1 900 0 0 0 0.0019 0.0138 0.0434 0.1011 0.095 0.0924 0.0716 0.0343 0.0106 0.0042 0.0021 0.0014 0 0 0 0 0 0 0 0.0019 0.0061 0.0238 0.0596 0.07 0.0838 0.088 0.0658 0.0332 0.0266 0.023 0.0218 0.0066 0.0068 0.0036 0.002 0.0018 0.0013 0.0018 7e-04 3e-04

2011 1007 5 3 0 1 -1 -1 987 0 0 0 8e-04 0.0128 0.0363 0.0791 0.1074 0.0917 0.0667 0.0465 0.0133 0.0061 0.0018 0.0011 3e-04 2e-04 2e-04 0 0 0 0 4e-04 0 0 0.0011 0.007 0.0177 0.0453 0.0813 0.0728 0.0768 0.0769 0.051 0.0302 0.0261 0.0199 0.0105 0.0073 0.0024 0.0028 0.001 0.0018 0.0014 6e-04 0.0013

2012 1007 5 3 0 1 -1 -1 937 0 0 0 0.0017 0.0127 0.0583 0.0844 0.0933 0.1041 0.0553 0.0372 0.0164 0.0082 0.002 5e-04 2e-04 4e-04 0 0 0 0 0 0 0.001 0.0111 0.0243 0.041 0.0663 0.0817 0.0716 0.0762 0.0579 0.0315 0.02 0.0152 0.0134 0.0076 0.0028 0.0012 6e-04 2e-04 0.0012 0 6e-04

2013 1007 5 3 0 1 -1 -1 947 0 0 0 0.0012 0.0072 0.0268 0.0976 0.1121 0.0986 0.083 0.0339 0.0208 0.0094 0.0035 0.0022 0.0016 5e-04 0 0 0 0 0 0 0.0011 0.0028 0.0101 0.0344 0.0609 0.0716 0.0736 0.0576 0.0604 0.049 0.0283 0.0199 0.0119 0.0103 0.0053 0.001 0.0019 7e-04 2e-04 2e-04 7e-04

2014 1007 5 3 0 1 -1 -1 1098 0 0 0 7e-04 0.009 0.0211 0.0632 0.1372 0.1193 0.0766 0.0413 0.0171 0.0083 0.003 0.0011 2e-04 3e-04 0 0 0 0 0 0 6e-04 0.0043 0.0115 0.0313 0.0714 0.0777 0.0699 0.0639 0.0424 0.0431 0.0344 0.0192 0.0118 0.0093 0.0037 0.0025 0.0021 0.0014 7e-04 2e-04 3e-04

2015 1007 5 3 0 1 -1 -1 1066 0 0 0 0.0018 0.0072 0.036 0.0483 0.0922 0.1439 0.0768 0.0361 0.0171 0.0066 0.002 0.0015 3e-04 0 2e-04 0 0 0 0 2e-04 0 0 9e-04 0.0034 0.0184 0.0251 0.0544 0.0943 0.0878 0.0645 0.0486 0.0361 0.0396 0.03 0.0125 0.0059 0.0033 0.0026 9e-04 6e-04 5e-04 0 4e-04

2016 1007 5 3 0 1 -1 -1 1031 0 0 0 0.0046 0.0091 0.0125 0.0508 0.049 0.0665 0.101 0.0668 0.0238 0.0114 0.0072 0.0028 0.0014 9e-04 0 3e-04 0 0 0 0 0 0.0018 0.0034 0.0072 0.035 0.0374 0.0677 0.1194 0.1022 0.0614 0.0437 0.0382 0.0277 0.0245 0.0117 0.0045 0.0032 0.0015 6e-04 7e-04 0 3e-04

2017 1007 5 3 0 1 -1 -1 925 0 0 0 0.0111 0.0208 0.0241 0.0269 0.0692 0.06 0.054 0.061 0.0273 0.0099 0.0033 7e-04 0.0018 1e-04 0 1e-04 0 0 0 0 0 0.0017 0.009 0.0095 0.0201 0.0592 0.062 0.0792 0.1159 0.0847 0.0597 0.0432 0.024 0.0189 0.0224 0.0111 0.0055 0.0014 0.0013 9e-04 0 0

2018 1007 5 3 0 1 -1 -1 970 0 0 0 0.0077 0.0597 0.0658 0.04 0.0317 0.0495 0.042 0.0365 0.0269 0.0133 0.008 0.0014  
0.0012 6e-04 2e-04 0 0 0 1e-04 0 0 0 0 0.0026 0.0198 0.0234 0.0252 0.0313 0.065 0.0577 0.0791 0.0981 0.0687  
0.0526 0.0292 0.0207 0.0167 0.0117 0.0079 0.0023 0.0016 8e-04 3e-04 7e-04  
2019 1007 5 3 0 1 -1 -1 1008 0 0 0 0.0139 0.031 0.1162 0.0831 0.041 0.0242 0.0259 0.0204 0.0114 0.0124 0.0057 8e-  
04 0.0015 0.0013 5e-04 4e-04 0 0 0 0 0 0.0061 0.0168 0.0495 0.0372 0.0303 0.0368 0.058 0.0642 0.0661 0.0797  
0.0611 0.0406 0.0252 0.0156 0.0106 0.0078 0.002 0.0016 0 4e-04 5e-04  
# Non-directed discard proportions at age updated 2019  
1992 1007 6 0 0 2 -1 -1 50 0.0091 0.0815 0.2064 0.1969 0.1447 0.0932 0.0615 0.0487 0.0351 0.0294 0.0238 0.0168  
0.0115 0.0413 0  
1993 1007 6 0 0 2 -1 -1 50 0.0071 0.1009 0.1842 0.1812 0.1532 0.1118 0.0749 0.0546 0.0348 0.0258 0.0197 0.0131  
0.0086 0.0301 0  
1994 1007 6 0 0 2 -1 -1 50 0.0059 0.0471 0.1269 0.1459 0.1411 0.1219 0.0964 0.0801 0.0563 0.0445 0.0351 0.0242  
0.0162 0.0584 0  
1995 1007 6 0 0 2 -1 -1 50 0.0345 0.0627 0.1228 0.1277 0.1295 0.1183 0.097 0.0815 0.0569 0.0435 0.0339 0.0228  
0.0152 0.0537 0  
1996 1007 6 0 0 2 -1 -1 50 0.0412 0.0648 0.1172 0.1168 0.1132 0.1051 0.092 0.0833 0.0623 0.0504 0.0404 0.0278  
0.0187 0.0666 0  
1997 1007 6 0 0 2 -1 -1 50 0.0216 0.1859 0.1719 0.1256 0.0437 0.0416 0.0566 0.0971 0.149 0.0304 0.0118 0.0126  
0.0114 0.0407 0  
1998 1007 6 0 0 1 -1 -1 50 0.0039 0.1095 0.2706 0.0977 0.0822 0.0541 0.0547 0.0791 0.062 0.0999 0.0435 0.0137  
0.0043 0.0248 0  
1999 1007 6 0 0 2 -1 -1 50 0.0058 0.0889 0.2243 0.2283 0.0686 0.0584 0.0539 0.0436 0.0367 0.0517 0.0672 0.0168  
0.0127 0.0432 0  
2000 1007 6 0 0 2 -1 -1 50 0.0068 0.0546 0.1563 0.2344 0.1393 0.0907 0.0628 0.0297 0.0364 0.0356 0.0409 0.063  
0.0118 0.0377 0  
2001 1007 6 0 0 2 -1 -1 50 0.0148 0.1414 0.1565 0.1071 0.1259 0.1198 0.0525 0.035 0.0318 0.0301 0.0403 0.0411  
0.0392 0.0645 0  
2002 1007 6 0 0 1 -1 -1 50 0.0226 0.1646 0.3787 0.0691 0.0466 0.0937 0.0817 0.0232 0.0115 0.0151 0.0132 0.0188  
0.0243 0.037 0  
2003 1007 6 0 0 1 -1 -1 50 0.0086 0.1336 0.2327 0.1907 0.1003 0.0732 0.0688 0.0498 0.017 0.0136 0.0132 0.0129  
0.0167 0.0689 0  
2004 1007 6 0 0 1 -1 -1 50 0.014 0.1885 0.2178 0.2013 0.1481 0.0287 0.0594 0.0499 0.0237 0.0152 0.0109 0.0041  
0.0035 0.0348 0  
2005 1007 6 0 0 1 -1 -1 50 0.0228 0.219 0.1669 0.1266 0.1407 0.091 0.0386 0.0359 0.0351 0.0277 0.008 0.0132 0.0077  
0.0669 0  
2006 1007 6 0 0 1 -1 -1 50 0.0188 0.18 0.2834 0.1487 0.1053 0.0984 0.0634 0.0214 0.0222 0.0203 0.0068 0.0035 0  
0.0277 0  
2007 1007 6 0 0 1 -1 -1 50 0.0196 0.1141 0.1932 0.1908 0.1025 0.1022 0.0941 0.0536 0.0249 0.0203 0.0235 0.0134  
0.008 0.0398 0  
2008 1007 6 0 0 1 -1 -1 50 0.0034 0.0881 0.21 0.2613 0.1857 0.0782 0.0532 0.0343 0.0286 0.0154 0.0022 0.0092  
0.0036 0.0267 0  
2009 1007 6 0 0 1 -1 -1 50 0.0059 0.0481 0.2283 0.1867 0.1373 0.1139 0.0647 0.0715 0.0464 0.0305 0.0161 0.0142  
0.0087 0.0278 0  
2010 1007 6 0 0 1 -1 -1 50 0.0092 0.0348 0.0966 0.1615 0.2592 0.1508 0.126 0.0752 0.0349 0.0208 0.0091 0.005  
0.0053 0.0115 0  
2011 1007 6 0 0 1 -1 -1 50 0.0121 0.0968 0.1068 0.1317 0.2126 0.1203 0.0726 0.0524 0.0391 0.0454 0.0392 0.0237  
0.014 0.0334 0  
2012 1007 6 0 0 1 -1 -1 50 0.0113 0.0734 0.1944 0.061 0.1068 0.2085 0.1212 0.0943 0.0456 0.0246 0.0142 0.0124  
0.006 0.0261 0  
2013 1007 6 0 0 1 -1 -1 50 0.0084 0.0517 0.0625 0.1159 0.0468 0.1028 0.1896 0.1539 0.0964 0.0494 0.0244 0.0212  
0.0166 0.0604 0  
2014 1007 6 0 0 1 -1 -1 50 0.0149 0.1111 0.1228 0.071 0.1105 0.0566 0.0922 0.1538 0.1258 0.0673 0.0315 0.0168  
0.0075 0.0183 0  
2015 1007 6 0 0 1 -1 -1 50 0.0115 0.1751 0.1975 0.0919 0.0434 0.0709 0.0552 0.0599 0.081 0.0653 0.052 0.0254







0.0343 0.0158 0.0111 0.0124 0.0097 0.0092 0.0092 0.0097 0.0036 9e-04 0.0017 7e-04 0 0.0026  
2007 7 9 3 0 1 -1 -1 330 0 0 0 0.0032 0.0225 0.0725 0.1337 0.0996 0.0679 0.0495 0.0549 0.0458 0.0183 0.0118 0.009  
0.0086 0.0073 0.0053 0.0056 0.0037 0.0024 4e-04 9e-04 0.0013 0 0 0 0.0014 0.0081 0.0319 0.059 0.0604 0.0398  
0.0376 0.0422 0.0301 0.0138 0.007 0.0094 0.0081 0.0059 0.0079 0.0054 0.0026 0.0011 5e-04 2e-04 0.0033  
2008 7 9 3 0 1 -1 -1 338 0 0 0 0.001 0.0106 0.0307 0.0888 0.1434 0.0813 0.056 0.0455 0.049 0.036 0.0156 0.0143  
0.0083 0.0072 0.0066 0.0061 0.0048 0.0028 0.0033 0.0015 0.0055 0 0 0 4e-04 0.0047 0.0195 0.0402 0.0723 0.0616  
0.0376 0.0395 0.038 0.0194 0.0108 0.0071 0.0065 0.0046 0.0041 0.0044 0.0038 0.0014 0.0017 3e-04 0.0036  
2009 7 9 3 0 1 -1 -1 333 0 0 0 0.001 0.0076 0.038 0.0631 0.0947 0.1285 0.0986 0.0529 0.044 0.0331 0.0266 0.0169  
0.0075 0.0037 0.0039 0.0041 0.0033 0.0035 0.0023 0.0013 0.0027 0 0 0 5e-04 0.0022 0.0151 0.0238 0.0479 0.069  
0.0568 0.0398 0.0267 0.0246 0.0176 0.0091 0.0055 0.0032 0.0032 0.0036 0.0041 0.0041 0.0016 0.0017 0.0025  
2010 7 9 3 0 1 -1 -1 333 0 0 0 0.001 0.0081 0.0253 0.0792 0.0765 0.0959 0.1272 0.0966 0.0412 0.0258 0.0244 0.0154  
0.0067 0.0025 0.0011 0.0017 0.0016 6e-04 0.0015 6e-04 0.002 0 0 0 7e-04 0.0025 0.0095 0.0324 0.0428 0.0636 0.0708  
0.0535 0.0254 0.0166 0.0176 0.0098 0.0057 0.0028 0.0024 0.0021 0.0013 0.0021 0.0017 0.0015 5e-04  
2011 7 9 3 0 1 -1 -1 358 0 0 0 5e-04 0.009 0.0363 0.0519 0.0812 0.0902 0.0946 0.1101 0.0672 0.0485 0.023 0.0202  
0.0122 0.0078 0.0042 0.0022 0.0013 0.0025 0.001 8e-04 0.0036 0 0 0 3e-04 0.0027 0.007 0.0172 0.0385 0.0431 0.0577  
0.066 0.0333 0.0217 0.0114 0.01 0.0082 0.0038 0.002 0.0029 9e-04 0.001 6e-04 0.0019 0.0013  
2012 7 9 3 0 1 -1 -1 354 0 0 0 0.0029 0.012 0.0395 0.073 0.0684 0.0878 0.0868 0.0895 0.0807 0.0555 0.024 0.0139  
0.0093 0.0063 0.0033 0.0024 3e-04 0.0011 0.001 0.0029 0.0024 0 0 0 6e-04 0.0029 0.0139 0.0262 0.0324 0.0485  
0.0439 0.0528 0.0451 0.0283 0.011 0.0078 0.0095 0.0045 0.002 7e-04 8e-04 0.001 6e-04 8e-04 0.0035  
2013 7 9 3 0 1 -1 -1 364 0 0 0 0.001 0.0037 0.0215 0.0749 0.0899 0.0725 0.0821 0.074 0.0759 0.0714 0.0366 0.0177  
0.0148 0.0093 0.0036 0.0032 0.0011 6e-04 0.0025 0.001 0.0021 0 0 0 3e-04 0.0011 0.0064 0.0258 0.0374 0.0301  
0.0479 0.0428 0.0483 0.0317 0.0233 0.0128 0.0096 0.0087 0.0042 0.0023 0.0014 0.0012 0.0014 0.0015 0.0021  
2014 7 9 3 0 1 -1 -1 381 0 0 0 7e-04 0.0079 0.0147 0.0565 0.1323 0.109 0.0676 0.0735 0.0596 0.0544 0.0326 0.0197  
0.0111 0.0072 0.0069 0.0031 0.0013 0.0011 9e-04 7e-04 0.0031 0 0 0 7e-04 0.0018 0.0064 0.0168 0.0474 0.0474  
0.0319 0.0406 0.0289 0.0342 0.0269 0.0178 0.0113 0.0071 0.0042 0.0033 7e-04 0.0011 0.002 0.0013 0.0044  
2015 7 9 3 0 1 -1 -1 352 0 0 0 0.0013 0.0039 0.0266 0.0288 0.0781 0.1573 0.1232 0.0695 0.0561 0.0372 0.0377 0.0207  
0.0143 0.0052 0.0062 0.0053 0.0017 5e-04 0.0012 0.0014 0.0029 0 0 0 2e-04 0.0021 0.0124 0.0127 0.027 0.066 0.043  
0.03 0.0263 0.0224 0.0262 0.0184 0.0101 0.0077 0.0052 0.0042 0.001 0.0016 0.0012 7e-04 0.0025  
2016 7 9 3 0 1 -1 -1 350 0 0 0 0.0019 0.0033 0.0077 0.0432 0.0353 0.0782 0.1555 0.1219 0.0607 0.0449 0.0384 0.0281  
0.0184 0.0117 0.0044 0.0048 0.0026 0.0013 0.0016 0 0.0013 0 0 0 0.0011 3e-04 0.0036 0.0181 0.0171 0.0308 0.0753  
0.0479 0.0293 0.0259 0.0238 0.02 0.0167 0.0112 0.0042 0.0026 0.0021 0.0026 0.001 0 0.0011  
2017 7 9 3 0 1 -1 -1 371 0 0 0 0.0036 0.0067 0.0089 0.0129 0.0477 0.0555 0.0865 0.1512 0.124 0.0542 0.0506 0.029  
0.0207 0.0163 0.0088 0.0062 0.0025 0.003 0.0016 6e-04 0.0032 0 0 0 5e-04 0.005 0.0034 0.0076 0.0227 0.0203 0.039  
0.0561 0.0412 0.0259 0.0233 0.0132 0.0141 0.0138 0.0074 0.0058 0.0022 0.0011 0.0019 3e-04 0.0015  
2018 7 9 3 0 1 -1 -1 466 0 0 0 0.0026 0.016 0.0189 0.0194 0.022 0.0494 0.0659 0.0891 0.1287 0.1018 0.0688 0.0348  
0.0222 0.0145 0.0132 0.0107 0.007 0.0027 0.0037 0.0017 0.0047 0 0 0 0.0013 0.0063 0.0094 0.0102 0.0138 0.0321  
0.0239 0.0317 0.0534 0.0386 0.0176 0.0098 0.0128 0.0091 0.0114 0.0071 0.0041 0.0024 0.002 0.001 0.0041  
2019 7 9 3 0 1 -1 -1 482 0 0 0 0.004 0.013 0.0467 0.0435 0.0291 0.0334 0.0591 0.0632 0.0832 0.0978 0.0814 0.031  
0.0262 0.0164 0.0115 0.0106 0.0048 0.0046 0.0038 0.0019 0.0058 0 0 0 0.0015 0.0073 0.024 0.0209 0.0164 0.0191  
0.0291 0.0231 0.0336 0.05 0.0328 0.0178 0.0133 0.0116 0.0065 0.0087 0.0032 0.0019 0.0028 0.0013 0.004  
# Survey proportions at age for Region 3 by sex updated 2019  
1993 7 10 3 0 2 -1 -1 70 0 0 0 0 0.007 0.0079 0.0333 0.0745 0.1411 0.0824 0.0824 0.0684 0.0298 0.0254 0.0167 0.0105  
0.007 0.0026 0.0044 0 0 0 0 0 0 0.0018 0.0035 0.0096 0.0158 0.0237 0.0666 0.0456 0.0692 0.0762 0.0403 0.021  
0.0158 0.0114 9e-04 0.0026 0.0026 0 0 0 0  
1994 7 10 3 0 2 -1 -1 147 0 0 0 0.0018 0.0124 0.0298 0.0385 0.0665 0.1031 0.1075 0.0621 0.0485 0.0361 0.0197  
0.0132 0.0069 0.0044 0.001 0.0033 0 0 0 0 0 0 4e-04 0.0076 0.012 0.0183 0.0448 0.0717 0.0621 0.0596 0.0539  
0.0458 0.0315 0.0167 0.0117 0.003 0.004 0.002 0 0 0 0  
1995 7 10 3 0 2 -1 -1 120 0 0 0 0.0028 0.0077 0.0232 0.0546 0.0629 0.0871 0.1015 0.1103 0.0518 0.0325 0.021 0.0121  
0.0033 0.0022 6e-04 0 0 0 0 0 0 6e-04 0.0121 0.0347 0.059 0.0596 0.0563 0.0496 0.0441 0.0347 0.032 0.0154  
0.0177 0.005 0.0028 0 0.0028 0 0 0 0  
1996 7 10 3 0 2 -1 -1 424 0 0 0 0.0028 0.0061 0.0141 0.0424 0.0932 0.0539 0.0745 0.087 0.0669 0.0518 0.0353 0.0273  
0.0203 0.0084 0.0071 0.0074 0 0 0 0 0 0 9e-04 0.0019 0.0061 0.0203 0.0465 0.0331 0.0426 0.0545 0.0478 0.0379  
0.0344 0.0275 0.0197 0.013 0.0087 0.0067 0 0 0 0  
1997 7 10 3 0 2 -1 -1 424 0 0 0 0.0013 0.0032 0.0183 0.0222 0.0553 0.1128 0.0706 0.0775 0.0717 0.0581 0.0257

0.0219 0.0154 0.0056 0.0056 0.0028 0 0 0 0 0 0 0 6e-04 0.0022 0.0045 0.0156 0.0341 0.0743 0.0363 0.0516 0.0549  
0.0526 0.0346 0.0296 0.0183 0.0113 0.0042 0.0073 0 0 0 0  
1998 7 10 3 0 1 -1 -1 506 0 0 0 0.0051 0.0125 0.0133 0.0215 0.0465 0.1051 0.0604 0.0501 0.0612 0.0432 0.0267  
0.0142 0.0164 0.0145 0.0078 0.0048 0.0033 0.002 0.002 0.0013 0 0 0 0 0.0019 0.0013 0.0039 0.0124 0.0262 0.0626  
0.0389 0.0343 0.045 0.0439 0.0373 0.0395 0.0385 0.0284 0.0281 0.0184 0.0081 0.0062 0.0055 0.0075  
1999 7 10 3 0 2 -1 -1 554 0 0 0 0.0011 0.0039 0.0112 0.0209 0.0346 0.0406 0.0863 0.1131 0.0632 0.0563 0.0395  
0.0261 0.013 0.0106 0.0052 0.008 0 0 0 0 0 0 0.0011 0.0024 0.0051 0.0116 0.0202 0.0305 0.0642 0.0961 0.05  
0.0458 0.0384 0.0358 0.0211 0.0165 0.0135 0.014 0 0 0 0  
2000 7 10 3 0 2 -1 -1 548 0 0 0 0.0022 0.009 0.0089 0.0175 0.0392 0.0493 0.0635 0.0951 0.1144 0.0466 0.0334 0.0273  
0.0204 0.0088 0.0046 0.0073 0 0 0 0 0 0 0.001 0.0031 0.0036 0.0124 0.0166 0.0345 0.044 0.074 0.0888 0.0409  
0.0336 0.0379 0.0255 0.0159 0.0076 0.0129 0 0 0 0  
2001 7 10 3 0 2 -1 -1 520 0 0 0 0.0031 0.0069 0.0139 0.0132 0.0184 0.0319 0.0618 0.0588 0.0934 0.0996 0.0635  
0.0368 0.0208 0.0138 0.0085 0.008 0 0 0 0 0 0 0.0022 0.0044 0.0076 0.0054 0.0108 0.0182 0.0269 0.0488 0.0733  
0.0764 0.0466 0.0448 0.0335 0.0243 0.0138 0.0107 0 0 0 0  
2002 7 10 3 0 1 -1 -1 555 0 0 0 0.0014 0.0101 0.026 0.0371 0.024 0.0325 0.0383 0.0494 0.0462 0.0742 0.0757 0.0429  
0.0264 0.0173 0.0139 0.0101 0.0057 0.0032 0.0014 0.0012 0.0012 0 0 0 0.0022 0.0038 0.011 0.0197 0.0145 0.0196  
0.0199 0.0285 0.0307 0.0488 0.0776 0.0402 0.0299 0.0276 0.0294 0.0168 0.013 0.0098 0.0083 0.0031 0.0072  
2003 7 10 3 0 1 -1 -1 516 0 0 0 0.0027 0.0147 0.0294 0.0444 0.0619 0.0376 0.0286 0.045 0.0408 0.0471 0.0489 0.0529  
0.0256 0.0161 0.0124 0.0088 0.0088 0.0023 0.0036 0.0025 0.0027 0 0 0 0.0015 0.0043 0.0139 0.0299 0.0268 0.0223  
0.0204 0.0306 0.0278 0.0357 0.047 0.0506 0.0384 0.0257 0.0187 0.0219 0.0157 0.0105 0.0053 0.0045 0.0118  
2004 7 10 3 0 1 -1 -1 523 0 0 0 0.0055 0.0108 0.0234 0.0402 0.0603 0.0519 0.0307 0.0363 0.0291 0.033 0.0355 0.0345  
0.031 0.0167 0.0089 0.0061 0.0059 0.0035 0.0015 6e-04 0.0011 0 0 0 0.0022 0.0049 0.0097 0.0237 0.0466 0.042  
0.0221 0.0265 0.0342 0.0392 0.04 0.0554 0.0562 0.039 0.0215 0.0212 0.0162 0.0137 0.0049 0.0043 0.0098  
2005 7 10 3 0 1 -1 -1 507 0 0 0 0.0022 0.0116 0.0195 0.0265 0.0407 0.0628 0.0704 0.0418 0.0383 0.0383 0.0347  
0.0362 0.0318 0.0224 0.015 0.0061 0.0062 0.0049 0.0019 0.0023 0.003 0 0 0 0.001 0.0045 0.0102 0.0127 0.0213  
0.0338 0.0316 0.0225 0.0246 0.0245 0.0296 0.0366 0.0465 0.0501 0.0379 0.0277 0.0192 0.0197 0.012 0.0068 0.0109  
2006 7 10 3 0 1 -1 -1 526 0 0 0 0.001 0.0063 0.0337 0.0462 0.0406 0.0524 0.0719 0.064 0.0396 0.0281 0.0268 0.0257  
0.0186 0.021 0.017 0.006 0.0049 0.0044 0.0019 9e-04 0.0043 0 0 0 3e-04 0.0032 0.0114 0.0156 0.0217 0.0283 0.0438  
0.0438 0.0233 0.0251 0.0354 0.0284 0.0298 0.0397 0.0436 0.0274 0.0181 0.015 0.0116 0.0071 0.0123  
2007 7 10 3 0 1 -1 -1 538 0 0 0 0.001 0.0062 0.0248 0.0521 0.0531 0.0488 0.0621 0.0668 0.0593 0.0305 0.0154 0.0182  
0.0135 0.0121 0.0102 0.0075 0.0029 0.0016 8e-04 0.0013 0.0017 0 0 0 6e-04 0.0022 0.0124 0.0265 0.026 0.0348  
0.0389 0.0465 0.0394 0.0231 0.0265 0.0326 0.0325 0.0316 0.032 0.037 0.0248 0.0146 0.0087 0.0079 0.0112  
2008 7 10 3 0 1 -1 -1 549 0 0 0 3e-04 0.0043 0.0086 0.0403 0.0822 0.0799 0.0527 0.0504 0.0607 0.0503 0.0323 0.0218  
0.0128 0.0105 0.0063 0.0067 0.0073 0.0053 0.0017 0.0017 0.0034 0 0 0 5e-04 0.0019 0.0045 0.0142 0.0357 0.0403  
0.0284 0.034 0.0458 0.0403 0.0262 0.0214 0.0214 0.0195 0.0184 0.021 0.0278 0.0212 0.0124 0.0076 0.018  
2009 7 10 3 0 1 -1 -1 537 0 0 0 0.0032 0.0078 0.0202 0.0432 0.0787 0.1217 0.0732 0.0578 0.0444 0.032 0.0197 0.012  
0.0056 0.0063 0.0033 0.0044 0.0042 0.0028 0.0011 2e-04 0.0023 0 0 0 9e-04 0.004 0.0098 0.0182 0.036 0.0516 0.0495  
0.034 0.0342 0.0423 0.0294 0.0201 0.0162 0.0185 0.0143 0.0156 0.0176 0.0172 0.0054 0.0078 0.0132  
2010 7 10 3 0 1 -1 -1 521 0 0 0 8e-04 0.0059 0.0171 0.0352 0.0552 0.0874 0.1082 0.0733 0.0406 0.0344 0.0242 0.0153  
0.0076 0.0041 0.0044 0.0014 0.0022 0.0014 0.0014 0.0016 0.0019 0 0 0 0.0018 0.0033 0.0083 0.0222 0.0315 0.0441  
0.0564 0.0497 0.0365 0.0304 0.0316 0.0351 0.0198 0.0183 0.0139 0.0136 0.0143 0.0097 0.0134 0.0088 0.0135  
2011 7 10 3 0 1 -1 -1 549 0 0 0 6e-04 0.0068 0.02 0.0398 0.0505 0.0566 0.0815 0.0984 0.0591 0.0332 0.0214 0.015  
0.0103 0.004 0.0027 0.0013 0.0022 0.0022 0.0023 0.0015 0.0025 0 0 0 6e-04 0.0037 0.009 0.0186 0.0275 0.0367  
0.0488 0.0647 0.053 0.0354 0.0385 0.0351 0.0261 0.0162 0.0123 0.012 0.0088 0.0092 0.0092 0.0094 0.0139  
2012 7 10 3 0 1 -1 -1 522 0 0 0 0.0011 0.005 0.0258 0.0385 0.051 0.0741 0.0765 0.1 0.078 0.0446 0.0193 0.0145  
0.0094 0.0068 0.0032 8e-04 0.0026 0.001 8e-04 8e-04 0.0016 0 0 0 8e-04 0.0052 0.012 0.0155 0.0297 0.0347 0.0482  
0.0611 0.0515 0.0327 0.0304 0.0231 0.0256 0.017 0.0101 0.0111 0.0065 0.004 0.0063 0.0069 0.012  
2013 7 10 3 0 1 -1 -1 528 0 0 0 3e-04 0.003 0.0128 0.0491 0.0646 0.0558 0.0631 0.0634 0.0778 0.0651 0.0341 0.0209  
0.0193 0.0086 0.005 0.0011 0.0023 0.0018 4e-04 0.003 0.0029 0 0 0 4e-04 0.0014 0.0059 0.017 0.0287 0.0335 0.0389  
0.0481 0.06 0.0553 0.0314 0.0286 0.0237 0.024 0.0129 0.0054 0.0075 0.0036 0.0056 0.0039 0.0097  
2014 7 10 3 0 1 -1 -1 556 0 0 0 2e-04 0.004 0.0117 0.0365 0.0891 0.0946 0.0742 0.0728 0.0563 0.0493 0.0385 0.0126  
0.0094 0.0055 0.0044 0.0011 0.0011 3e-04 6e-04 3e-04 8e-04 0 0 0 3e-04 0.003 0.0066 0.0141 0.0404 0.0467 0.0477  
0.0446 0.0387 0.0439 0.0437 0.0261 0.0185 0.0182 0.0089 0.0098 0.0077 0.0032 0.0027 0.0025 0.0093  
2015 7 10 3 0 1 -1 -1 529 0 0 0 7e-04 0.0023 0.0142 0.0252 0.0596 0.103 0.0908 0.0742 0.0597 0.0397 0.033 0.0186

0.01 0.0047 0.002 0.0017 8e-04 3e-04 5e-04 7e-04 0.0017 0 0 0 5e-04 8e-04 0.0072 0.0109 0.0263 0.0568 0.0555  
0.0479 0.044 0.0409 0.052 0.0399 0.0216 0.0117 0.0126 0.0103 0.0057 0.003 0.0022 5e-04 0.0064  
2016 7 10 3 0 1 -1 -1 538 0 0 0 0.0025 0.0054 0.0048 0.0199 0.0282 0.0549 0.0961 0.0986 0.0601 0.0482 0.0439  
0.0253 0.0215 0.0093 0.0042 0.0019 0.0017 2e-04 0.001 3e-04 9e-04 0 0 0 7e-04 0.0016 0.0031 0.0156 0.0186 0.0383  
0.0731 0.0687 0.0473 0.0357 0.0397 0.0335 0.0323 0.0217 0.0104 0.0097 0.0067 0.0034 0.0031 0.0014 0.0064  
2017 7 10 3 0 1 -1 -1 521 0 0 0 0.0044 0.0079 0.0095 0.0084 0.0366 0.0412 0.0691 0.1171 0.0843 0.0519 0.04 0.02  
0.0198 0.0143 0.0053 0.0026 0.0026 9e-04 9e-04 0 9e-04 0 0 0 0.0011 0.0033 0.0038 0.0066 0.0236 0.0286 0.0436  
0.0732 0.0551 0.0436 0.0423 0.0293 0.0275 0.0308 0.0189 0.011 0.007 0.0073 0.002 9e-04 0.0031  
2018 7 10 3 0 1 -1 -1 537 0 0 0 0.0041 0.0187 0.0251 0.0179 0.0173 0.0346 0.0421 0.0819 0.093 0.0662 0.0499 0.0202  
0.0168 0.0073 0.0067 0.0036 0.002 4e-04 0 4e-04 4e-04 0 0 0 0.002 0.0071 0.0112 0.0102 0.0161 0.0339 0.0372  
0.0546 0.0758 0.0521 0.0458 0.0322 0.0288 0.0291 0.0186 0.0142 0.0069 0.0048 0.0065 0.0018 0.0027  
2019 7 10 3 0 1 -1 -1 560 0 0 0 0.007 0.0106 0.0492 0.0466 0.0346 0.0279 0.0402 0.0501 0.0584 0.0843 0.0475 0.0316  
0.0148 0.0122 0.0064 0.0067 0.0011 0.0011 0.0015 0 5e-04 0 0 0 0.003 0.0041 0.0209 0.0159 0.0171 0.0144 0.0295  
0.0345 0.0494 0.0642 0.0616 0.0369 0.0248 0.0249 0.0204 0.0223 0.0057 0.0062 0.0031 0.0051 0.0039  
# Survey proportions at age for Region 4 by sex updated 2019  
1997 7 11 3 0 2 -1 -1 220 0 0 0 3e-04 0.0015 0.0019 0.0177 0.0607 0.2316 0.0679 0.0414 0.0327 0.0201 0.0191 0.0185  
0.0221 0.0222 0.0126 0.0166 0 0 0 0 0 0 0 3e-04 6e-04 0.0041 0.0123 0.0445 0.1211 0.0369 0.0285 0.0221 0.021  
0.0178 0.025 0.0263 0.0212 0.0124 0.0188 0 0 0 0  
1998 7 11 3 0 1 -1 -1 92 0 0 0 0.0014 0.0041 0.0108 0.023 0.0338 0.1878 0.0851 0.0432 0.0365 0.0176 0.0108 0.0122  
0.0122 0.0108 0.0216 0.0027 0.0027 0 0.0027 0.0068 0 0 0 0 0 0.0041 0.0068 0.0419 0.1122 0.0459 0.0257 0.0284  
0.0284 0.0243 0.0162 0.0203 0.0297 0.0338 0.0135 0.0108 0.0027 0.0068 0.023  
1999 7 11 3 0 2 -1 -1 61 0 0 0 0.0026 0.0013 0.0111 0.0169 0.0319 0.054 0.0865 0.1373 0.0416 0.0351 0.0241 0.015  
0.0124 0.0111 0.0117 0.0208 0 0 0 0 0 0 0 7e-04 0 0.002 0.0078 0.0254 0.052 0.0904 0.147 0.0358 0.0247 0.0345  
0.0189 0.0137 0.0098 0.0091 0.015 0 0 0 0  
2000 7 11 3 0 2 -1 -1 149 0 0 0 0.0014 0.0028 0.006 0.0157 0.0197 0.0313 0.0554 0.1006 0.1236 0.0584 0.0315 0.0257  
0.0173 0.022 0.0163 0.0511 0 0 0 0 0 0 0 8e-04 0.003 0.0054 0.0102 0.0164 0.0267 0.0451 0.0726 0.0673 0.0335  
0.0337 0.0213 0.0211 0.0189 0.0153 0.0298 0 0 0 0  
2001 7 11 3 0 2 -1 -1 146 0 0 0 0.0019 0.0086 0.0136 0.0144 0.0156 0.0225 0.0457 0.0846 0.1174 0.0649 0.0399  
0.0187 0.0181 0.0134 0.0238 0 0 0 0 0 0 0 0.002 0.0072 0.0087 0.0139 0.0181 0.0315 0.062 0.0865 0.0887 0.0532  
0.0388 0.03 0.0191 0.016 0.0211 0 0 0 0  
2002 7 11 3 0 1 -1 -1 154 0 0 0 0.0016 0.0058 0.0287 0.0354 0.0169 0.0206 0.0219 0.0252 0.0333 0.0552 0.0938  
0.0529 0.0274 0.0161 0.0163 0.0136 0.0105 0.016 0.0142 0.0108 0.0199 0 0 0 0.0013 0.0061 0.0177 0.0304 0.0109  
0.0205 0.021 0.0262 0.0307 0.0405 0.0711 0.0347 0.0175 0.0177 0.0163 0.0127 0.0119 0.0157 0.0195 0.0161 0.0256  
2003 7 11 3 0 1 -1 -1 153 0 0 0 7e-04 0.0035 0.0119 0.0331 0.043 0.0281 0.0232 0.023 0.0284 0.0499 0.0729 0.0715  
0.0619 0.0237 0.0171 0.0142 0.0137 0.0086 0.009 0.0066 0.0165 0 0 0 7e-04 0.0024 0.0088 0.0239 0.0262 0.0162  
0.0153 0.0193 0.0177 0.0285 0.0487 0.0529 0.0351 0.0156 0.0177 0.0177 0.0123 0.0186 0.0132 0.0176 0.031  
2004 7 11 3 0 1 -1 -1 145 0 0 0 0.0035 0.0113 0.0144 0.0252 0.0581 0.0446 0.0255 0.027 0.0203 0.0283 0.0484 0.0438  
0.0363 0.0248 0.0141 0.0114 0.0078 0.0048 0.0069 0.0065 0.0192 0 0 0 0.002 0.0111 0.0104 0.0227 0.0477 0.0458  
0.0178 0.02 0.0224 0.0291 0.0365 0.0446 0.0495 0.0233 0.0196 0.0174 0.0148 0.0149 0.0142 0.0178 0.0359  
2005 7 11 3 0 1 -1 -1 144 0 0 0 0.0023 0.0106 0.0222 0.0217 0.0349 0.0603 0.0567 0.0356 0.024 0.023 0.0231 0.0371  
0.0359 0.0281 0.0112 0.0115 0.0094 0.0068 0.002 0.0051 0.0157 0 0 0 7e-04 0.0045 0.0144 0.0108 0.0288 0.0516  
0.0621 0.0364 0.0275 0.0199 0.0254 0.0243 0.0389 0.0443 0.0363 0.016 0.0134 0.009 0.0069 0.0097 0.042  
2006 7 11 3 0 1 -1 -1 240 0 0 0 0.0057 0.0312 0.0609 0.0754 0.0424 0.0471 0.0552 0.0459 0.0193 0.0133 0.0125 0.017  
0.0223 0.0189 0.0174 0.0099 0.0051 0.0026 0.0034 0.0031 0.0124 0 0 0 0.002 0.0136 0.0298 0.0417 0.0286 0.0381  
0.0559 0.0429 0.0185 0.0221 0.0132 0.0219 0.0263 0.0244 0.029 0.0114 0.0124 0.0076 0.0056 0.0048 0.0292  
2007 7 11 3 0 1 -1 -1 176 0 0 0 0.0039 0.0118 0.0635 0.0966 0.0851 0.0444 0.0361 0.0423 0.0371 0.0206 0.0169 0.016  
0.0139 0.0129 0.0121 0.01 0.0062 0.0048 0.0021 0.0016 0.0163 0 0 0 0.0021 0.0078 0.0305 0.0326 0.0502 0.0373  
0.0441 0.0449 0.0332 0.0106 0.0125 0.0101 0.0189 0.0132 0.0195 0.0194 0.0117 0.0067 0.0051 0.0055 0.03  
2008 7 11 3 0 1 -1 -1 166 0 0 0 7e-04 0.0105 0.0303 0.0791 0.0893 0.089 0.0569 0.0407 0.0353 0.0254 0.0148 0.0116  
0.0119 0.0103 0.0115 0.0098 0.0079 0.0071 0.0035 0.0023 0.0132 0 0 0 2e-04 0.0066 0.0163 0.0388 0.048 0.0554  
0.0387 0.0294 0.0315 0.0209 0.0126 0.0132 0.0102 0.0089 0.0118 0.0189 0.0171 0.0147 0.0083 0.0062 0.0308  
2009 7 11 3 0 1 -1 -1 171 0 0 0 0.0024 0.012 0.0414 0.0646 0.0904 0.0903 0.0742 0.035 0.0222 0.0241 0.0156 0.0094  
0.0124 0.0073 0.0073 0.0096 0.0089 0.0063 0.0024 0.0032 0.0141 0 0 0 0.001 0.0086 0.0317 0.0372 0.0453 0.0541  
0.0462 0.0231 0.0247 0.0205 0.0165 0.0125 0.0106 0.011 0.0143 0.0159 0.0169 0.0153 0.0097 0.0066 0.0249

2010 7 11 3 0 1 -1 -1 172 0 0 0 0.0017 0.0079 0.0257 0.0727 0.0741 0.1007 0.0964 0.0747 0.0244 0.0225 0.0226  
0.0203 0.0071 0.0049 0.0073 0.0061 0.0075 0.0057 0.0065 0.0054 0.0163 0 0 0 0.0037 0.0154 0.0372 0.0359 0.05  
0.0465 0.0421 0.016 0.0165 0.0134 0.0113 0.0089 0.0075 0.0056 0.0061 0.0094 0.0129 0.0101 0.0097 0.0313  
2011 7 11 3 0 1 -1 -1 166 0 0 0 9e-04 0.0061 0.0161 0.0504 0.1002 0.1118 0.093 0.072 0.0487 0.0229 0.0132 0.011  
0.007 0.006 0.0038 0.003 0.0034 0.0027 0.0043 0.003 0.0106 0 0 0 9e-04 0.0041 0.0105 0.0281 0.0619 0.0459 0.0516  
0.0433 0.0359 0.0184 0.0129 0.014 0.0112 0.0067 0.0056 0.0058 0.0048 0.0098 0.0065 0.0087 0.0236  
2012 7 11 3 0 1 -1 -1 168 0 0 0 0.0067 0.0309 0.0571 0.0858 0.1261 0.0865 0.0753 0.0516 0.0287 0.0132 0.0119  
0.0076 0.0041 0.0047 0.0051 0.0041 0.004 0.0024 0.0049 0.0109 0 0 0 0.0066 0.0104 0.0264 0.0455 0.0594 0.0401  
0.036 0.0324 0.0226 0.0122 0.0116 0.0102 0.0055 0.0055 0.0047 0.0073 0.0074 0.0068 0.0051 0.0227  
2013 7 11 3 0 1 -1 -1 167 0 0 0 0.001 0.0036 0.0109 0.0492 0.0783 0.1141 0.1297 0.0739 0.0634 0.0354 0.0261 0.017  
0.011 0.0086 0.006 0.0073 0.0022 0.0046 0.0025 0.0047 0.0146 0 0 0 0.001 0.001 0.0023 0.0123 0.028 0.0502 0.0586  
0.0368 0.0312 0.0207 0.0186 0.0096 0.0078 0.0049 0.0064 0.0041 0.0053 0.0059 0.0046 0.0046 0.0219  
2014 7 11 3 0 1 -1 -1 227 0 0 0 5e-04 0.0046 0.0111 0.0313 0.0804 0.1067 0.1378 0.1098 0.0667 0.0429 0.0279 0.019  
0.0092 0.0093 0.0028 0.0046 0.0017 0.0022 0.0017 0.0014 0.0127 0 0 0 2e-04 0.0019 0.0049 0.0163 0.0302 0.0386  
0.0433 0.0477 0.0245 0.0183 0.018 0.0129 0.0086 0.0055 0.0054 0.005 0.0042 9e-04 0.0025 0.003 0.0238  
2015 7 11 3 0 1 -1 -1 239 0 0 0 0.0011 0.0063 0.0267 0.0338 0.0713 0.1232 0.1191 0.1158 0.0627 0.0296 0.0165  
0.0111 0.0078 0.0038 0.0041 0.0022 0.003 0.0014 0.0022 0.0017 0.0107 0 0 0 0.0029 0.0119 0.015 0.032 0.0392  
0.0535 0.0499 0.0348 0.0175 0.018 0.0122 0.0077 0.0098 0.0039 0.0049 0.0024 0.0016 0.0038 0.0054 0.0197  
2016 7 11 3 0 1 -1 -1 220 0 0 0 0.003 0.0053 0.0104 0.0365 0.0469 0.0614 0.1132 0.1204 0.0886 0.0627 0.0442 0.0229  
0.0104 0.0088 0.0038 0.0025 0.0057 7e-04 0.0017 0.0025 0.016 0 0 0 0.0012 0.0021 0.0051 0.0251 0.0213 0.0371  
0.0493 0.0516 0.0297 0.0283 0.0178 0.0092 0.0086 0.0037 0.0039 0.0042 0.0033 0.0031 0.0017 0.0026 0.0239  
2017 7 11 3 0 1 -1 -1 166 0 0 0 0.0046 0.0116 0.0116 0.0249 0.0736 0.0749 0.0821 0.1062 0.0939 0.0742 0.0457  
0.0197 0.0108 0.0082 0.0042 0.0054 0.0012 0.0022 0.0014 0.002 0.0124 0 0 0 8e-04 0.003 0.004 0.012 0.0364 0.0314  
0.0397 0.0465 0.0409 0.0325 0.0209 0.0115 0.0086 0.0068 0.004 0.0034 0.0038 0.0016 0.0014 0.0014 0.0188  
2018 7 11 3 0 1 -1 -1 167 0 0 0 0.0029 0.0393 0.0413 0.0288 0.0311 0.0582 0.0627 0.0723 0.0801 0.0788 0.0773  
0.0308 0.0174 0.0155 0.0067 0.0031 0.0032 0.0035 0.002 0.0011 0.0099 0 0 0 5e-04 0.0121 0.0125 0.0104 0.0167  
0.0377 0.0285 0.0407 0.0363 0.0293 0.0312 0.0201 0.0127 0.0083 0.0056 0.0061 0.0037 0.0019 0.0031 0.0017 0.0148  
2019 7 11 3 0 1 -1 -1 167 0 0 0 0.0058 0.0206 0.0849 0.0666 0.0412 0.0422 0.0538 0.0531 0.0542 0.0527 0.0372  
0.0261 0.0207 0.0136 0.0048 0.004 0.0015 0.0027 0.0016 8e-04 0.0051 0 0 0 0.0039 0.0124 0.0287 0.0183 0.0131  
0.0271 0.0338 0.0422 0.0413 0.0457 0.0353 0.0283 0.0233 0.0137 0.0076 0.0076 0.0024 0.0019 0.0023 0.0029 0.0151  
# Survey proportions at age for Region 4B by sex updated 2019  
1997 7 12 3 0 2 -1 -1 74 0 0 0 0.0055 9e-04 0.0087 0.016 0.0356 0.0766 0.0524 0.0214 0.0228 0.0269 0.016 0.0201  
0.0269 0.0128 0.0219 0.0223 0 0 0 0 0 0 0.0032 0.0023 0.0105 0.0228 0.0524 0.1294 0.0688 0.0401 0.0305 0.0428  
0.0273 0.0273 0.0419 0.0246 0.0296 0.0597 0 0 0 0  
1998 7 12 3 0 1 -1 -1 41 0 0 0 0.0062 0.0164 0.0062 0.0103 0.0205 0.0226 0.0534 0.0349 0.0287 0.0226 0.0267 0.0164  
0.0226 0.0246 0.0185 0.0082 0.0123 0.0103 0 0.0041 0.0185 0 0 0 0.0021 0.0103 0.0082 0.0082 0.0329 0.0452 0.0616  
0.1047 0.037 0.0226 0.0431 0.0185 0.039 0.0411 0.0329 0.0205 0.0226 0.0082 0.0144 0.0164 0.0267  
1999 7 12 3 0 2 -1 -1 82 0 0 0 0.0012 0.0132 0.0259 0.0138 0.0229 0.0349 0.0547 0.0848 0.0469 0.0222 0.0132 0.0192  
0.0186 0.012 0.012 0.0253 0 0 0 0 0 0 6e-04 0.0072 0.018 0.0132 0.0259 0.0409 0.0896 0.1269 0.0655 0.0337  
0.0313 0.0355 0.0277 0.015 0.021 0.0271 0 0 0 0  
2000 7 12 3 0 2 -1 -1 83 0 0 0 0.0014 0.0062 0.0187 0.0345 0.0134 0.0182 0.0306 0.0426 0.068 0.0321 0.0139 0.0129  
0.0168 0.0091 0.0096 0.0383 0 0 0 0 0 0 0.001 0.0057 0.022 0.0349 0.0225 0.0326 0.0507 0.0886 0.113 0.0393  
0.0297 0.0469 0.0263 0.0335 0.0292 0.0579 0 0 0 0  
2001 7 12 3 0 2 -1 -1 83 0 0 0 0.0032 0.0077 0.0194 0.0277 0.0516 0.0329 0.0155 0.0239 0.0323 0.0503 0.0303 0.0174  
0.0206 0.0168 0.009 0.0226 0 0 0 0 0 0 0.0019 0.0065 0.0084 0.0277 0.0406 0.0406 0.0245 0.0477 0.0748 0.1  
0.0665 0.0497 0.0342 0.0361 0.0252 0.0342 0 0 0 0  
2002 7 12 3 0 1 -1 -1 82 0 0 0 9e-04 0.0116 0.0196 0.025 0.0384 0.0312 0.0169 0.0187 0.0169 0.0375 0.041 0.0178  
0.0134 0.0054 0.0143 0.008 0.008 0.0187 0.008 0.0071 0.025 0 0 0 0.0036 0.0107 0.0178 0.0161 0.0384 0.0321 0.0303  
0.0339 0.0473 0.05 0.0633 0.0357 0.0232 0.0205 0.033 0.0196 0.0125 0.0294 0.0134 0.0187 0.0669  
2003 7 12 3 0 1 -1 -1 82 0 0 0 0.0022 0.0067 0.0311 0.0355 0.0355 0.0388 0.0366 0.0183 0.0128 0.0155 0.0266 0.0277  
0.025 0.02 0.0055 0.0072 0.01 0.0083 0.0117 0.0061 0.0205 0 0 0 0.0022 0.005 0.0289 0.0322 0.0289 0.0433 0.0422  
0.015 0.0239 0.02 0.0427 0.0638 0.0333 0.0216 0.0211 0.0244 0.0194 0.0222 0.0239 0.0166 0.0677  
2004 7 12 3 0 1 -1 -1 70 0 0 0 0.0072 0.0137 0.0174 0.0456 0.0398 0.0289 0.0347 0.0253 0.0137 0.0072 0.0123 0.0145  
0.021 0.008 0.0065 0.0101 0.0072 0.0029 0.0065 0.0036 0.0152 0 0 0 0.0014 0.0152 0.0362 0.0564 0.063 0.0405



0 # Use direct selectivity observations: 0=no, 1=yes

999 # End of data file