

# Retaining 2020 Anglers and Hunters

*An Analysis of Fishing and Hunting Participation During the Pandemic*

April 23, 2021

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## Executive Summary

The COVID-19 pandemic took hold in Oregon, and the rest of the United States, in the Spring of 2020. Statewide closures emerged and an overall reluctance to travel started to significantly impact people's recreational choices. ODFW began to notice increases in certain product sales as early as April of 2020. These increases in sales as well as participation propelled ODFW into action to better understand what changes were taking place in its customers' preferences and behaviors so that the Agency could take action to retain those customers moving forward.

The work to understand these pandemic participants meant the Agency would: (1) investigate sales data, (2) develop custom reporting to bridge the former and current electronic licensing systems to enable in-depth analysis of that data, (3) devise and conduct a customer survey, and perform the respective analysis of those results, (4) craft a customer retention plan with agency-wide implications, and lastly (5) execute a series of on-going outreach strategies based on the analysis to aid in retaining customers while the research continued. The ultimate goal of this analysis is to help identify effective strategies to retain these new customers (Pandemic Participants) and sell them recreational products again for 2021 and beyond. While the focus of this effort is to retain Pandemic Participants, the research, data analysis and evaluation of this retention plan will help inform future efforts to retain new participants after the pandemic subsides.

Key findings include:

### **Sales Data**

- Sport Pac purchases increased by approximately 7% in 2020
- Nearly 10,000 more Youth Sport Pac and Annual Youth Licenses were sold in 2020
- Nearly 40,000 additional adult and youth bird stamps were sold in 2020
- Annual angling license sales increased while daily angling licenses decreased in 2020
- The amount of yearly and daily parking permits sold doubled in 2020
- Over 53% of gross revenues occurred through the internet sales channel, up from 39% in 2019

### **Customer Demographics**

- New customers are more likely to be female than retained or dropped customers in 2020 (approximately 1 in 3)
- New customers are more likely to be from urban areas than our retained and dropped customers in 2020 (approximately 60% urban/40% rural)
- New 2020 customers as a group comprised fewer people aged 55 and older when compared to other customer groups in 2020 (by percentage)
- New 2020 customers as a group comprised more people aged 44 and younger when compared to other customer groups in 2020 (by percentage)
- There was a higher proportion of youth participation in game bird, and angling license products
- New customers joined—mostly ages 12-17 and 25-54

### **Survey**

- Participants felt hunting and/or angling was a healthy recreational option and they had time to do it
- Stress relief was a top reason for participation for half of anglers/hunters
- Most new customers had hunting and fishing background earlier in life
- Participants are very or extremely likely to purchase again in 2021

- 1/3 of new customers have no outdoors mentor
- New customers desire where-to and how-to information

Finally, the analysis that ODFW began in the Spring of 2020 has concluded and been leveraged to craft a new customer retention plan specific to the pandemic participants. The key goal and objectives of that retention plan are noted below.

**Goal:**

Retain the 2020 Pandemic Participants as current ODFW customers in 2021 and beyond.

**Objectives:**

1. Create and enhance educational offerings for current and prospective customers
2. Orient current and prospective customers to ODFW and its recreational offerings
3. Increase engagement through touch points with current customers
4. Enhance support structures to aid in retaining current customers
5. Maintain evaluation processes to track, measure and analyze plan performance

**Spotlight on retention efforts in response to key sales data and survey results:**

Angling

- Email renewal campaign targeting customers that purchased in 2020 but have yet to purchase 2021 with promotion of “Start Fishing” page and links to “50 in 60” online brochures
- Re-engagement campaign with customers that purchased in 2018 and 2019
- Targeted focus on participants located within the I-5 corridor
- Improve ease of finding ‘how-to’ and ‘where-to’ fishing content with the development of “Start Fishing” landing page, and curation of additional ‘how-to’ and ‘where-to’ web articles, social media videos and updated printable materials (i.e., “50 places to go fishing within 60 Miles of ‘X’”)
- Address ease of understanding and use of sport fishing regulations through development of video tutorial
- Promote angling participation to groups already participating in complementary recreational activities such as paddling, camping, backpacking, hiking
- Recreational Boating and Fishing Foundation awarded \$25,000 grant to pursue OTT (Over-the-Top) advertising targeting the retention of 2020 angling pandemic participants
- “Pop-up” fishing events at popular recreation areas with volunteers available to answer common fishing questions. New 2020 participants will be contacted about these events and license sales will be available via smartphone

Hunting

- Working with Wildlife Division to incorporate introductory articles into the Game Bird regulations to help customers find additional inspiration to hunt for multiple species and to answer commonly asked questions about pheasant hunting
- Targeted email campaign to 2020 fee pheasant hunters encouraging 2021 participation with videos highlighting the key aspects to pheasant hunting in Oregon, including mention of the four ODFW wildlife areas where pheasant hunting will take place in 2021
- Targeted focus on game bird participation predominately by urban residents along the I-5 corridor
- Improve ease of finding ‘how-to’ and ‘where-to’ hunting content with the development of “Start Hunting Game Bird” and “Start Hunting Big Game” landing page, and curation of additional ‘how-to’ and ‘where-to’ web articles, social media video

- Address ease of understanding and use of big game and game bird regulations through development of video tutorials
- Schedule Zoom follow-ups meetings with workshop participants after class (to allow them to ask questions after having spent some time out in the field practicing their skills)

#### Wildlife Area Parking Permits

- Renewal campaign targeting 2020 purchasers with additional resources for wildlife viewing sites, and encouraging them to add angling to their wildlife viewing trips, with links to “50 places to go fishing within 60 Miles of ‘X’” online brochures
- Promote iNaturalist, OCRF projects, R&E successes in renewal campaign and through ODFW channels like social media and Messenger
- Consider “upsell” messages to encourage purchasers to buy a hunting or combination license (which includes parking permit and generates additional federal funds)

#### Key Messaging Focal Points

- Restorative Aspects of Nature – can utilize stories from veterans’ groups that take people out on trips to help heal, reduce stress and reconnect with the local public lands
- Mentorship connections – Partner with Backcountry Hunters and Anglers (BHA) to share the possibility of connecting with local mentorship to new hunters and anglers
- Safe Activities – Reinforce the benefit of outdoor recreation to social distancing and remaining healthy through pandemic
- Female participation – plan outings for the family that close to home
- Youth – leverage youth interest in angling, hunting, shellfishing, and wildlife viewing as they function as mini influencers for their families

In summary, the work to retain the 2020 Pandemic Participants has long been underway. ODFW initiated a series of R3 efforts early on in 2020 to capitalize on the influx of new customers. ODFW connected with and educated these new customers while the Pandemic Opportunity Workgroup conducted the survey, report construction, data mining, and analysis that would help to further inform and refine the R3 initiatives already underway. These preliminary efforts combined with additional strategies born out from the Pandemic Opportunity Workgroup’s research findings serve as the foundation of the retention plan. The key underpinning of the retention efforts is to: keep new customers aware of and participating in fishing, hunting, shellfishing, and wildlife viewing; help new customers increase their skills and comfort level so as to make their experience more rewarding; and to minimize barriers and roadblocks to their current and future participation. While this initiative focuses on new participants in 2020, the research and evaluation of these strategies will be helpful in efforts to retain new hunters and anglers in the future.

## Introduction

The spring of 2020 saw the COVID-19 pandemic significantly impact the way Oregonians traveled and recreated. While statewide closures and a reluctance to travel negatively impacted many facets of the State's economy, ODFW began to see increases in certain product sales as early as April. The belief is that many of these people are new, or have not had a license in several years leading up to 2020. Other outdoor recreation activities saw similar increases with more public interest in camping, boating, hiking, biking, and other outdoor activities. This is understandable, given other sports and leisure activities being cancelled, and a desire to avoid crowds. The plan for the future, the department began to analyze its sales data and conduct a more in-depth analysis to get to know these new customers.

The unanticipated increase in new customers provides an opportunity to increase long-term participation in fishing and hunting. It is generally far easier to retain a customer than to attract a new customer. The department recognized this opportunity and made it a priority to retain these new hunters and anglers.

The ultimate goal of this analysis is to help identify effective strategies to retain these new customers and sell them recreational products again for 2021 and beyond. Analysis of historic license sales data and surveys of new customers would help validate the assumptions made about why product sales increased. This would increase the effectiveness of an official retention effort. Additionally, the research, data analysis and evaluation of retention strategies will help inform future efforts to retain new hunters and anglers.

## Sales Data

### Key Findings

- Sports Pac purchases increased by approximately 7% in 2020
- Nearly 10,000 more Youth Sports Pac and Annual Youth Licenses were sold in 2020
- Nearly 40,000 additional adult and youth bird stamps were sold in 2020
- Annual angling license sales increased while daily angling licenses decreased in 2020
- The amount of yearly and daily parking permits sold doubled in 2020
- Over 53% of gross revenues occurred through the internet sales channel, up from 39% in 2019

2020 brought with it unexpected changes to ODFW's recreational product sales. Hunting, fishing, and wildlife parking area sales increased when activities moved outdoors. In 2020, angling license sales increased by 18% and hunting by 6% compared to 2019. This section provides an in-depth review of 2020 license sales trends and specific change. It includes an evaluation of the key 2020 year-over-year (YOY) license sales trends, a summary of 2020 license purchases compared to the 2016-2019 trends, and a review of the increase in internet sales.

### 2019-2020 License Sales Comparison

This summary includes year-over-year (YOY) sales information and a description of license types that were critically impacted in 2020. This review includes a discussion of general sales trends seen in combination licenses, angling, and hunting. Further assessments are made on certain license and tag types that increased significantly in 2020, including: youth licenses, bird hunting related products, and wildlife area parking permits. License sales that decreased significantly are also discussed, including specific types of angling products: daily angling licenses, prepaid angling licenses, and the Columbia River Basin Endorsement, and also senior and pioneer licenses. It should be noted that the sales data reviewed in this section provide a snapshot of all ODFW's 2019 and 2020 customers. An evaluation of the new 2020 customers (the COVID cohort) is presented in later sections of this report. A comprehensive data table with the YOY 2019-2020 sales, is located in the Appendix.

<b>Combination Licenses</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Sports Pac</b>	35,383	38,135	2,752	7.22%	7.78%
<b>Youth Sports Pac</b>	9,420	10,209	789	7.73%	8.38%
<b>Combination</b>	70,268	66,624	(3,644)	-5.47%	-5.19%

Table 1

Table 1 shows that annual combination license sales saw very similar percentage increases in both adult and youth Sport Pacs in 2020. Annual Combination license sales decreased by around 5.5% with 3,644 fewer sales occurring this past year. Since there was an increase in Sports Pacs, Annual Resident Angler, and Annual Resident Hunter purchases, excluding customers who did not make a purchase, the decrease in Combination licenses likely consists of customers shifting to a different annual license.

<b>Fishing Licenses &amp; Tags</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Resident Angler</b>	211,575	247,596	36,021	14.55%	17.03%
<b>Nonresident Unif. Services Angler</b>	640	2,633	1,993	75.69%	311.41%
<b>Nonresident Angler</b>	20,823	25,680	4,857	18.91%	23.33%
<b>One-Day Angling &amp; Shellfish</b>	17,759	26,896	9,137	33.97%	51.45%
<b>Combined Angling Tag</b>	112,541	116,604	4,063	3.48%	3.61%
<b>Nonresident Combined Angling Tag</b>	6,644	7,709	1,065	13.82%	16.03%
<b>Hatchery Harvest Tag</b>	4,562	4,794	232	4.84%	5.09%

Table 2

Angling was a very popular option for ODFW’s 2020 customers, as a result large sales increases occurred in this category during the pandemic. Over 42,000 additional annual angling licenses were purchased in 2020. Other Western states, including California and Idaho also saw similar magnitudes of increased angling participation (source: <https://www.opb.org/article/2021/02/18/gone-fishin-western-states-catch-lots-more-angling-and-hunting-license-sales-during-pandemic/> ).

In particular, annual angling licenses for residents and nonresidents both saw double digit increases. Nonresident increases were likely due to closure of all fishing in Washington early in the pandemic and a similar increase in nonresident sales is not expected in 2021. While angling products were not up across the board (a discussion on the type of angling products that experienced decreased sales is provided later in the section), across all angling, sales were up in 2020 by 18% compared to 2019. Angling products that are complementary in nature to annual angling licenses that performed well in 2020 include Combined Angling Tags and Hatchery Harvest Tags.

<b>Shellfish Licenses</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Resident Annual Shellfish</b>	126,462	133,393	6,931	5.20%	5.48%
<b>Nonresident Unif. Services Shellfish</b>	275	1,127	852	75.60%	309.82%
<b>Nonresident Shellfish</b>	11,043	11,769	726	6.17%	6.57%
<b>Nonresident 3-Day Shellfish</b>	16,933	16,331	(602)	-3.69%	-3.56%

Table 3

Shellfish licenses in general saw modest increases. It should be noted that Nonresident Uniformed Services Shellfish licenses increased at a level seen across other license types as well; overall the active duty military group had a substantial increase in participation from previous levels. This is likely due to Washington based military personnel traveling to Oregon while Washington seasons were closed. The Nonresident 3-Day Shellfish license experienced a decrease. It is interesting that there was still an increase in shellfish licenses considering county level concerns about overcrowding and many park closures along the Oregon coast.

<b>Hunting Licenses &amp; Tags</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Resident Hunter</b>	68,652	73,173	4,521	6.18%	6.59%
<b>Resident Unif. Services Hunter</b>	1,249	1,534	285	18.58%	22.82%
<b>Nonresident Unif. Services Hunter</b>	571	617	46	7.46%	8.06%
<b>Nonresident Hunter</b>	13,694	13,883	189	1.36%	1.38%
<b>Nonresident 3-Day Game Bird</b>	4,133	3,876	(257)	-6.63%	-6.22%
<b>Resident Deer</b>	129,877	160,274	30,397	18.97%	23.40%
<b>Nonresident Deer</b>	2,184	2,360	176	7.46%	8.06%
<b>Resident Elk</b>	65,948	100,027	34,079	34.07%	51.68%
<b>Nonresident Elk</b>	3,792	4,296	504	11.73%	13.29%
<b>Resident Bear</b>	60,911	67,914	7,003	10.31%	11.50%
<b>Nonresident Bear</b>	1,656	1,771	115	6.49%	6.94%

Table 4

2020 hunting license sales indicate that there was increased participation in hunting compared to 2019, especially by Oregon residents. Nearly 5,000 more resident annual hunting licenses were purchased in 2020. Tag sales for deer, elk, and bear also increased significantly from 2019 with a particularly large increase in elk tags. Some of the increases could be due to residents who made the choice to hunt in Oregon this year instead of taking an out of state hunting trip.

Although license sales were up overall, a few groups that had increased participation during 2020 stick out from the rest. These include, youth, bird hunting, and wildlife area parking permits. A special focus on these groups would be valuable to ODFW's retention efforts.

<b>Youth Licenses</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Youth Sports Pac</b>	9,420	10,209	789	7.73%	8.38%
<b>Youth Annual License</b>	44,485	53,035	8,550	16.12%	19.22%
<b>Combined Angling Tag</b>	12,066	14,972	2,906	19.41%	24.08%
<b>Resident Youth Turkey Tags</b>	1,179	1,849	670	36.24%	56.83%
<b>Waterfowl Bird Stamp</b>	1,740	3,655	1,915	52.39%	110.06%
<b>Upland Bird Stamp</b>	2,016	4,388	2,372	54.06%	117.66%

Table 5

Across the board more youth participated in 2020 and all youth related license and tags experienced increased sales. Nearly 10,000 more Youth Sport Pac and Annual Youth Licenses were sold in 2020 than the previous year. This indicates that hunting and fishing are outdoor activities that families are engaging in to a greater extent over the past year. There are many reasons why this could be the case from more family time, shifting activities outdoors, and restrictions on the group size of popular youth activities. More analysis could be conducted to understand what the drivers were for youth participation. Data from adult new customers, indicate that those who decided to try out these activities

this year are younger in general and likely have children living at home. It will be critical to keep this group of youth engaged moving ahead.

<b>Game Bird Hunting Tags/Validations</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Resident Turkey Tags</b>	11,574	15,026	3,452	22.97%	29.83%
<b>Resident Youth Turkey Tags</b>	1,179	1,849	670	36.24%	56.83%
<b>Pheasant Tags</b>	3,123	3,672	549	14.95%	17.58%
<b>Waterfowl Stamp</b>	14,031	29,933	15,902	53.13%	113.33%
<b>Waterfowl Stamp - Youth</b>	1,740	3,655	1,915	52.39%	110.06%
<b>Upland Bird Stamp</b>	25,741	44,779	19,038	42.52%	73.96%
<b>Upland Bird Stamp - Youth</b>	2,016	4,388	2,372	54.06%	117.66%
<b>Nonresident Bird Stamp</b>	3,784	4,121	337	8.18%	8.91%
<b>Nonresident Unif Services Bird Stamp</b>	79	89	10	11.24%	12.66%

Table 6

Bird hunting was another group that saw significant increases in participation in 2020. Nearly 40,000 additional adult and youth bird stamps were sold in 2020 compared to 2019. Resident bird tags and validations increased in ranges from around 15% to 54%. There was a lot of excitement for game bird hunting this past year. Bird hunting is often an activity that new hunters try, to ease into hunting. Time will tell if the trends seen this year represent a new group of hunters.

<b>Wildlife Area Parking Permits</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Daily</b>	1,278	3,050	1,772	58.10%	138.65%
<b>Yearly</b>	2,646	4,967	2,321	46.73%	87.72%

Table 7

Lastly, wildlife area parking permits represent another bright spot for 2020 sales. The total amount of yearly and daily parking permits sold doubled from 3,924 in 2019 to 8,017 in 2020. As seen across the country, an outcome of the pandemic was that people shifted their activities outdoors and found more time to engage in hiking along with wildlife and bird watching (Source: <https://civicscience.com/how-americans-are-fighting-cabin-fever/> ). Increased engagement with Oregonians who enjoy these non-consumptive activities is vital as there is much opportunity for education and discussion about how fish and wildlife conservation is funded. Encouraging this new group to be more involved with ODFW is essential now and into the future.

While the overall picture of license sales in 2020 compared to 2019 is very optimistic, sales decreased in some areas because of the pandemic. In this vein, two groups stand out--senior customers and a specific subset of short-term angling licenses and products.

<b>Resident Senior Licenses</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Senior Combination</b>	3,232	3,042	(190)	-6.25%	-5.88%
<b>Pioneer</b>	61,372	60,023	(1,349)	-2.25%	-2.20%
<b>Senior Angler</b>	11,172	11,063	(109)	-0.99%	-0.98%

<b>Senior Hunter</b>	1,402	1,342	(60)	-4.47%	-4.28%
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Table 8

Across the board all senior licenses saw a decrease in 2020 compared to 2019; this was likely an impact due to the pandemic. Further review in the next subsection of this report shows why this decrease is significant, as in previous years there had been a positive trend in the sale of these license types. These sales are expected to recover after the pandemic, although additional outreach to these customers in 2021 or 2022, may be required.

<b>Angling: Daily Licenses, Prepays, &amp; Endorsements</b>					
	<b>2019</b>	<b>2020</b>	<b>Sales Diff</b>	<b>% new in 2020</b>	<b>% increase</b>
<b>Prepaid Daily</b>	35,548	18,648	(16,900)	-90.63%	-47.54%
<b>One-Day</b>	90,632	77,803	(12,829)	-16.49%	-14.16%
<b>Two-Day</b>	20,328	12,607	(7,721)	-61.24%	-37.98%
<b>Three-Day</b>	19,524	18,093	(1,431)	-7.91%	-7.33%
<b>Nonresident 7-Day</b>	6,941	4,007	(2,934)	-73.22%	-42.27%
<b>Yearly CRBE</b>	100,445	98,961	(1,484)	-1.50%	-1.48%
<b>Daily CRBE</b>	77,347	33,874	(43,473)	-128.34%	-56.21%
<b>Two Rod Validation</b>	23,080	21,495	(1,585)	-7.37%	-6.87%

Table 9

While angling participation as a whole was up in 2020, daily license sales and prepaid licenses took a very large hit. It is likely prepaid licenses were down due to the disproportionate impact from the pandemic on coastal fishing and fishing charter activity. While not yet fully investigated, it is suspected that much of the increase in fishing participation was geared around inland fishing, such as trout. Daily license types also experienced major declines in 2020, from 2019. Some of the decline in one-day licenses could potentially be explained by behavioral shifts where customers decided to upgrade to an annual license as they expected to fish more throughout the year. The two-day, three-day, and 7-day products were likely impacted by fewer nonresidents visiting Oregon to go angling. Decreases to the Columbia River Basin Endorsement (especially seen in the daily endorsement) and Two Rod could be related to the Columbia River WA closure early in the pandemic.

## 2016 – 2020 License Sales Trends

Below is a summary of major license purchases in 2020 that deviated from the 2016-2019 trends, including Sports Pacs, Annual Angler, Annual Hunter, and Pioneer licenses.

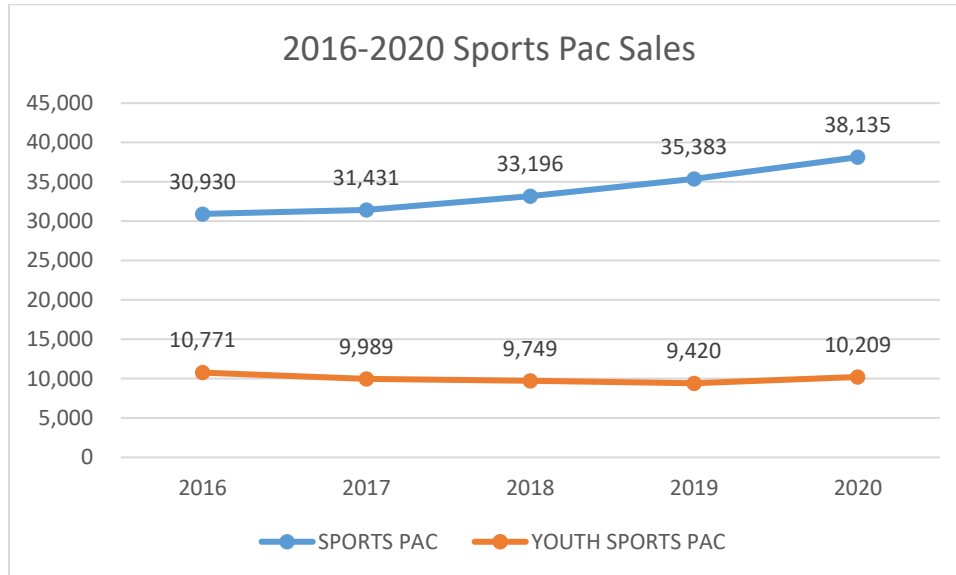


Figure 1

Sports Pac sales are closely followed by ODFW. While other resident license types have experienced steady declines, Sports Pacs sales continue to increase. The chart above shows Sports Pacs and Youth Sports Pacs product sales from 2016 to 2020. Adult Sports Pacs have experienced year over year increases, while Youth Sports Pacs had been on the decline until this past year. The magnitude of the year to year change in product sales is shown below.

	2016-2017		2017-2018		2018-2019		2019-2020	
	diff	%	diff	%	diff	%	diff	%
<b>Sports Pac</b>	501	1.62%	1,765	5.32%	2,187	6.18%	2,752	7.22%
<b>Youth Sports Pac</b>	(782)	-7.26%	(240)	-2.46%	(329)	-3.49%	789	7.73%

Table 10

Sport Pacs have been increasing from around 1.5%-7%. In fact, 2020 data, compared to 2019 has the largest increase of 2,752. This steady increase is likely due to customers upgrading from combination licenses to Sports Pacs. The pandemic may have had little impact on Sports Pac sales, other than to reinforce an existing trend. Interestingly Youth Sports Pacs indicate a different scenario where the pandemic did likely help push the product sales trajectory from negative to positive.

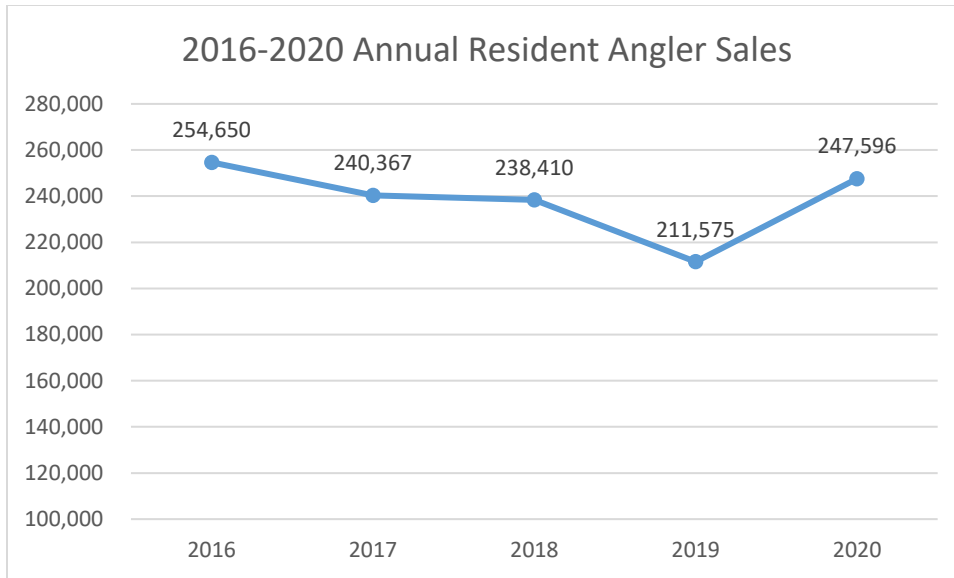


Figure 2

Other license types have also shifted from a negative to a positive trajectory in 2020. Oregon residents had been purchasing fewer annual angling licenses each year (this subset of sales from 2016 to 2020 shows how this trend had been ongoing until 2020). Even with 2020 as a fee increase year for this license type, the total number of licenses sold increased from 2019.

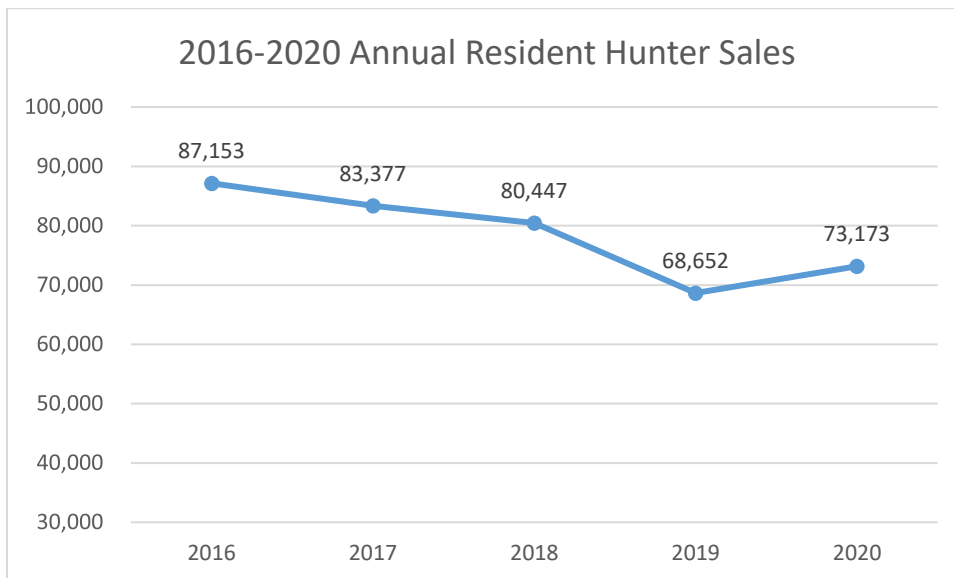


Figure 3

Figure 3 above shows the sales of resident annual Hunting Licenses from 2016 to 2020. While the increase in 2020 is not as large as seen in angling, it presents a similar dynamic. Product sales had been on the decline, but in 2020 they bounce back to a certain extent. It will be important to understand where this rebound is from. Is it from new hunters or is it a more seasoned group that decided to hunt close to home rather than making an out of state trip? Understanding this group of participants is very important for retention and additional information is provided later in this report.

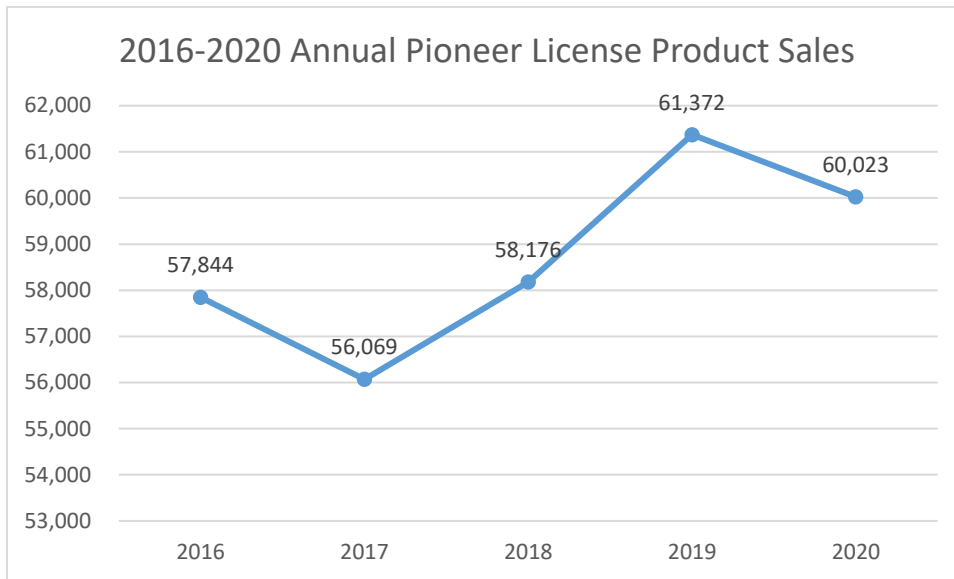


Figure 4

Figure 4 above shows Pioneer license sales from 2016 to 2020. This \$6 combination license is for Oregonians who are 65 and older and have been an Oregon resident for at least 50 years. Since its introduction the Pioneer license has been very popular. This license was not included in the 2020 fee increase and remained at the same price. It is likely that part of the decline in sales that occurred in 2020 was related to the pandemic. These sales may recover as the pandemic subsides, although it will be important to provide safe opportunities for seniors to participate in the future.

The last topic addressed in this section is a change in the way licenses were purchased in 2020, with a substantial boost in ODFW's internet sales.

### Surges in Internet Purchases

The trend towards an increase in customer purchases through ODFW's internet sales channel, that began in late 2018, continued in 2020. Over 53% of gross revenues occurred through ODFW's internet sales channel in 2020, up from 39% in 2019. While it could be expected that 2020 would lead to a greater portion of sales being made through ODFW's Electronic Licensing System, as it was the second full year of implementation, this increase was greater than pre-pandemic expectations. As seen in many other industries, customer purchase behavior shifted away from storefronts to internet transactions, speeding up existing consumer trends (Source: <https://unctad.org/news/covid-19-has-changed-online-shopping-forever-survey-shows> ). This continued increase in internet sales provides ODFW an opportunity to further reduce its operating costs driven by the support of the manual licensing processes.

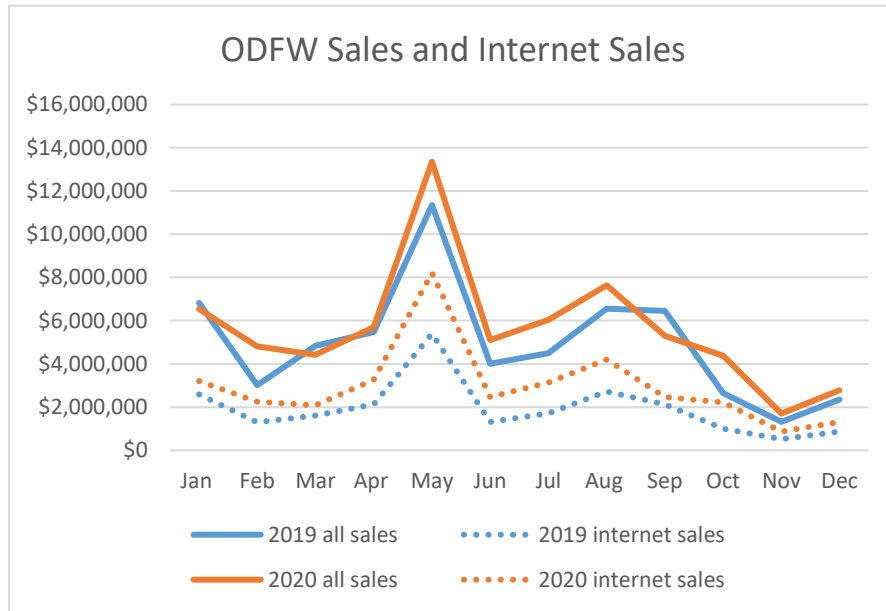


Figure 5

Figure 5 above, shows ODFW’s monthly sales revenues for 2019 and 2020. The dashed lines correspond to the portion of online sales that occurred. Over \$35 million in revenues were generated from internet sales in 2020. May is the largest license sales revenue month for ODFW, which is driven by controlled-hunt application sales. In May of 2020, there was slightly over \$8.2 million in revenues from internet sales, in 2019 this figure was around \$5.4 million.

ODFW 2020 Internet Sales		
	Online Sales in 2020	YOY increase from 2019
<b>Jan</b>	\$ 3,212,038	23.9%
<b>Feb</b>	\$ 2,249,302	73.6%
<b>Mar</b>	\$ 2,077,104	28.9%
<b>Apr</b>	\$ 3,273,712	53.7%
<b>May</b>	\$ 8,204,313	52.1%
<b>Jun</b>	\$ 2,467,344	88.2%
<b>Jul</b>	\$ 3,134,680	83.1%
<b>Aug</b>	\$ 4,205,494	54.9%
<b>Sep</b>	\$ 2,473,045	16.4%
<b>Oct</b>	\$ 2,215,071	121.3%
<b>Nov</b>	\$ 869,874	69.0%
<b>Dec</b>	\$1,318,340	51.9%
<b>Total</b>	\$35,700,317	53.4%

Table 11

The Table 11 shows all 2020 online sales by month and the percentage YOY increase in online sales compared to 2019. October 2020 saw the largest increase in online sales revenue compared to the online revenues in the year prior.

<b>ODFW % Internet Sales to Gross Revenues</b>		
	<b>2019</b>	<b>2020</b>
<b>Jan</b>	38.0%	49.1%
<b>Feb</b>	43.1%	46.7%
<b>Mar</b>	33.3%	47.0%
<b>Apr</b>	38.9%	57.5%
<b>May</b>	47.5%	61.4%
<b>Jun</b>	32.7%	48.3%
<b>Jul</b>	38.1%	51.9%
<b>Aug</b>	41.4%	55.1%
<b>Sep</b>	33.0%	46.7%
<b>Oct</b>	37.9%	50.5%
<b>Nov</b>	39.0%	51.1%
<b>Dec</b>	37.0%	47.5%
<b>Total</b>	39.2%	52.7%

Table 12

Table 12 breaks down the percentage of internet sales to all ODFW sales by month for 2019 and 2020. The 2020 increases in the portion of dollars coming in through online purchases is quite substantial with a yearly total 52.7% of all sales coming from the Electronic Licensing System. In particular, May, April, and August of 2020 stand out as the three months where the largest portion of sales consisted of internet sales. Likewise, the months of April, June, and May of 2020 have the largest proportional increases from the prior year. Though it should be noted that the magnitude of increases in 2020 lies in a similar range (13.5-18.6 point increase) after it initially picks up in March of 2020. While online sales are still up, the rate starts declining from October through December of 2020. As one of its outcome measures, ODFW tracks the portion of revenues that occur online on a quarterly basis. This will be an especially important measure to track, as vaccinations occur and customers frequent retail establishments in greater numbers. Until then, it is difficult to gauge whether this trend will continue at this pace or start to taper off.

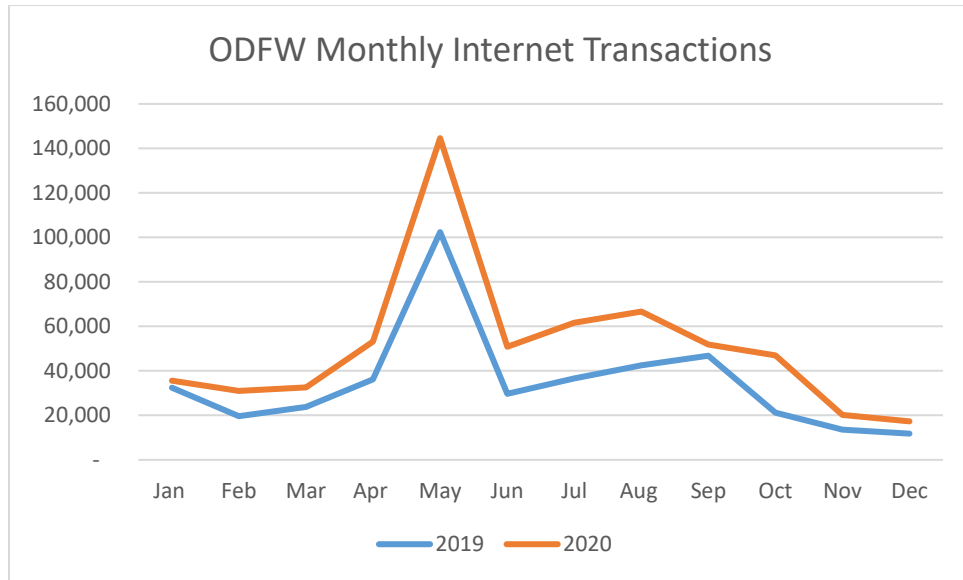


Figure 6

Finally, we look at the number of transactions that occurred in 2020 and the average dollar amount per transaction. Figure 6 shows that generally the number of online transactions, similar to revenues, were higher in 2020. This demonstrates that increased sales revenue is not merely captured by the 2020 fee increase or even customers choosing to purchase more expensive licenses (for example upgrading to Sports Pacs); there were more individual transactions. In terms of retention, there is value in incorporating online marketing strategies and concepts like auto-renewal to provide customers purchase reminders and keep them engaged.

Figure 7 is a summary of average sales per transaction. March was unique, as sales per transaction decreased to an extent not seen during the rest of 2020. One pandemic-related hypothesis stems from the amount of uncertainty about the future and the recreation closures that were in place in March of 2020. This could have made certain add-on products (for example a shellfish license) less attractive. Future work to look at what products were not being purchased at this time in comparison to the year prior could provide additional insight. Other important months of interest are June, July, and November where it appears that, compared to 2019, 2020 customers spent more per each online transaction. It should be noted that there was a fee increase in 2020, so the full increases shown here cannot be completely explained by an increase in products sold. Part of this increase also includes 2020 fee increases.

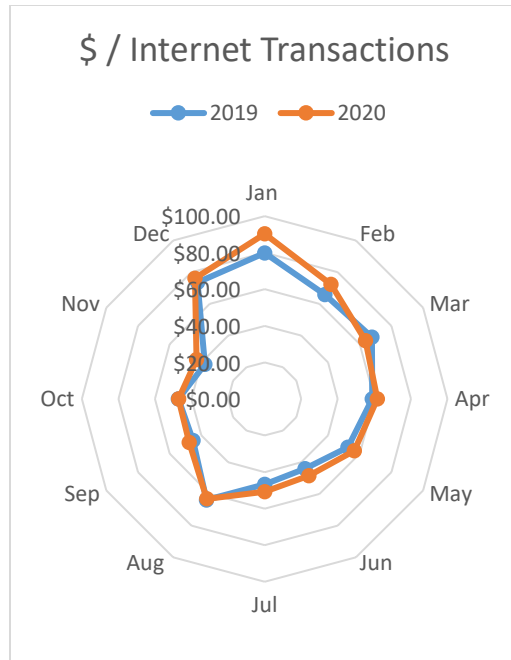


Figure 7

Internet Sales \$/Transaction			
	2019	2020	YOY 2020
<b>Jan</b>	\$79.86	\$90.31	13.1%
<b>Feb</b>	\$65.91	\$72.42	9.9%
<b>Mar</b>	\$67.79	\$63.78	-5.9%
<b>Apr</b>	\$58.85	\$61.63	4.7%
<b>May</b>	\$52.69	\$56.73	7.7%
<b>Jun</b>	\$44.13	\$48.54	10.0%
<b>Jul</b>	\$46.68	\$50.81	8.8%
<b>Aug</b>	\$63.77	\$63.14	-1.0%
<b>Sep</b>	\$45.32	\$47.74	5.3%
<b>Oct</b>	\$47.17	\$47.14	0.0%
<b>Nov</b>	\$37.71	\$42.93	13.8%
<b>Dec</b>	\$73.64	\$76.20	3.5%

Table 13

Deeper insight and a better understanding of these purchasers and the key drivers of the product sales increases seen in 2020 are included in subsequent sections of this report. In Section 2, we analyze additional customer demographics and marketing level data to understand more about our customers. Section 3 provides a summary of survey responses and our survey methodology from a customer survey conducted in late 2020. The goal of this survey was to learn more about the new group of customers who became engaged with ODFW during the pandemic and also what these customers felt influenced their decisions to make a purchase in 2020, and into the future.

## 2020 Customer Demographics

### Key Findings

- New customers are more likely to be female than retained or dropped customers in 2020 (approx. 1 in 3)
- New customers are more likely to be from urban areas than our retained and dropped customers in 2020 (approximately 60% urban/40% rural)
- New 2020 customers as a group comprised fewer people aged 55 and older when compared to other customer groups in 2020 (by percentage)
- New 2020 customers as a group comprised more people aged 44 and younger when compared to other customer groups in 2020 (by percentage)
- There was a higher proportion of youth participation in game bird, and angling license products
- New customers joined—mostly ages 12-17 and 25-54

	New	Retained	Dropped
Resident	115,778 (71%)	482,532 (92%)	529,029 (65.2%)
Rural	46,996 (40.6%)	264,109 (54.7%)	243,855 (46.1%)
Urban	68,782 (59.4%)	218,423 (45.3%)	285,174 (53.9%)
Non-resident	47,210 (29%)	42,018 (8.0%)	282,129 (34.8%)
Male	107,099 (65.7%)	406,873 (77.6%)	564,671 (69.6%)
Female	55,462 (34%)	117,446 (23.4%)	246,002 (30.3%)
Non-binary	425 (0.3%)	230 (0.04%)	455 (0.06%)
0-11	8,347 (5.1%)	5,988 (1.1%)	11,572 (1.4%)
12-17	23,484 (14.4%)	36,537 (7.0%)	60,175 (7.4%)
18-24	18,798 (11.5%)	38,963 (7.4%)	86,417 (10.7%)
25-34	32,563 (20%)	78,437 (15%)	137,182 (17%)
35-44	28,165 (17.3%)	88,988 (17%)	133,136 (16.4%)
45-54	21,905 (13.4%)	83,951 (16%)	117,001 (14.4%)
55-59	9,579 (5.9%)	44,467 (8.5%)	61,092 (7.5%)
60-64	8,385 (5.1%)	44,551 (8.5%)	58,916 (7.3%)
65-70	7,136 (4.4%)	51,250 (9.8%)	63,111 (7.8%)
71+	4,626 (2.8%)	51,418 (9.8%)	82,556 (10.2%)

Table 14

### Definitions:

- New: ODFW has no record of these customers having made a purchase (not in system) prior to 2020 and dating back to 2016
- Retained: Customer has made a purchase since 2016 and also made a purchase in 2020
- Dropped: Customer has previously purchased from ODFW since 2016 but did not purchase in 2020

Table 14 above showcases the demographic statistics for the 2020 customers during the pandemic. The table shows the breakdowns of that customer cohort by residency status (including the dispensation between rural and urban Oregon resident customers), gender, and age. Notably, the pandemic participants were predominately Oregon residents at 71%, with a greater quantity of those customers

coming from urban areas (59.4%) than of rural areas (40.6%). New customers are more likely to be female at a rate of approximately 1 in 3. Additionally, there was a decrease in the proportion of new customers aged 45 and older compared to retained and dropped in 2020. Conversely there was an increase in the proportion of new customers aged 0-44 years old when compared to retained and dropped in 2020.

Product Type (Codes)	Rural	Urban	Resident	Non-Resident
Annual Angling License (0120)	23,942 (40.4%)	35,393 (59.6%)	59,335 (86.2%)	9,501 (13.8%)
Annual Combination License (0101)	13,770 (49.3%)	14,156 (50.7%)	27,926 (84.8%)	5,009 (15.2%)
Annual Hunting License (0150)	3,234 (54.9%)	2,656 (45.1%)	5,890 (67.5%)	2,832 (32.5%)
Annual Shellfish License (0140A)	7,524 (34.4%)	14,357 (65.6%)	21,881 (82.5%)	4,639 (17.5%)
One Day Angling & Shellfish License (0137)	579 (29.8%)	1,365 (70.2%)	1,944 (16.4%)	9,903 (83.6%)
One Day Angling License (0130)	2,637 (31.2%)	5,821 (68.8%)	8,458 (43.1%)	11,174 (56.9%)
Buck Deer - General Season Western Oregon (156A)	2,992 (62.3%)	1,807 (37.7%)	4,799 (95.8%)	209 (4.2%)
Buck Deer - General Season Archery Tag (0156B)	1,209 (60.5%)	788 (39.5%)	1,997 (90.1%)	220 (9.9%)
Fee Pheasant Permit (0182)	42 (29.8%)	99 (70.2%)	141 (77.5%)	41 (22.5%)
Upland Game Bird Validation (0210)	709 (60.8%)	457 (39.2%)	1,166 (96.9%)	37 (3.1%)
Waterfowl Bird Validation (0205A)	5,743 (65.3%)	3,051 (34.7%)	8,794 (99.3%)	60 (0.7%)
Combined Angling Tag (0132)	15,870 (49.1%)	16,448 (50.9%)	32,318 (91.2%)	3,102 (8.8%)
<b>TOTALS:</b>	<b>78,251 (44.8%)</b>	<b>96,398 (55.2%)</b>	<b>174,649 (78.9%)</b>	<b>46,727 (21.1%)</b>

Table 15

Table 15 describes the license product purchases in proportions of rural vs urban residents, and residents vs non-residents. The resident column is actually a summation of the rural and urban columns combined. A use case, for example, may be: ODFW wants to target individuals that purchased an annual angling license and it becomes valuable to know that the majority of new customers that purchased the annual angling license came from urban areas. In general, angling products had a larger proportion of urban customers buying those products than rural customers. The opposite is true for the majority of hunting license products.

Product Type (Code)	Male	Female	Non-Binary
Annual Angling License (0120)	44,518 (64.7%)	24,120 (35%)	197 (0.3%)
Annual Combination License (0101)	22,196 (67.4%)	10,679 (32.4%)	60 (0.2%)
Annual Hunting License (0150)	6,652 (76.3%)	2,055 (23.6%)	15 (0.2%)
Annual Shellfish License (0140A)	14,349 (54.1%)	12,088 (45.6%)	82 (0.3%)
One Day Angling & Shellfish License (0137)	9,002 (76%)	2,805 (23.7%)	40 (0.3%)
One Day Angling License (0130)	13,885 (70.7%)	5,688 (29%)	59 (0.3%)
Buck Deer - General Season Western Oregon Tag (0156A)	3,408 (68.1%)	1,595 (31.8%)	5 (0.1%)
Buck Deer - General Season Archery Tag (156B)	1,728 (77.9%)	485 (21.9%)	4 (0.2%)
Fee Pheasant Permit (0182)	165 (90.7%)	15 (8.2%)	2 (1.1%)
Upland Game Bird Validation (0210)	928 (77.1%)	272 (22.6%)	3 (0.2%)
Waterfowl Bird Validation (0205A)	7,835 (88.5%)	1,014 (11.5%)	5 (0.06%)
Combined Angling Tag (0132)	25,100 (70.9%)	10,250 (29%)	70 (0.2%)
<b>TOTALS:</b>	<b>149,766 (67.7%)</b>	<b>71,066 (32.1%)</b>	<b>542 (0.2%)</b>

Table 16

Table 16 displays the difference in gender proportions by the listed license products. Males purchased the products above at a higher proportion than female or non-binary, across the board. The annual shellfish license saw the highest proportion of female purchasing of all the license products listed.

Product Type/Code	Annual Angling License (120)	Annual Combination License (101)	Annual Hunting License (150)	Annual Shellfish License (0140A)	One Day Angling & Shellfish License (137)	One Day Angling License (130)	TOTALS:
0-11	0 (0%)	1,724 (5.2%)	0 (0%)	0 (0%)	24 (0.2%)	26 (0.1%)	1,774
12-17	28 (0.04%)	24,059 (73%)	20 (0.2%)	12 (0.05%)	430 (3.6%)	1,464 (7.5%)	26,013
18-24	10,445 (15.2%)	705 (2.1%)	1,534 (17.6%)	2,931 (11.1%)	1,335 (11.3%)	2,943 (15%)	19,893
25-34	17,458 (25.4%)	1,134 (3.4%)	2,572 (29.5%)	6,362 (24%)	2,594 (21.9%)	4,606 (23.5%)	34,726
35-44	14,761 (21.4%)	1,020 (3.1%)	1,943 (22.3%)	6,069 (23.9%)	2,579 (21.8%)	3,726 (19%)	30,098
45-54	11,336 (16.5%)	759 (2.3%)	1,174 (13.5%)	4,946 (18.7%)	2,236 (18.9%)	3,158 (16.1%)	23,609
55-59	5,046 (7.3%)	341 (1.0%)	520 (6%)	2,055 (7.7%)	961 (8.1%)	1,251 (6.4%)	10,174
60-64	4,491 (6.5%)	367 (1.1%)	450 (5.2%)	1,766 (6.7%)	707 (6%)	1,072 (5.5%)	8,853
65-70	3,228 (4.7%)	1,560 (4.7%)	310 (3.6%)	1,490 (5.6%)	591 (5%)	858 (4.4%)	8,037
71+	2,043 (3%)	1,266 (3.8%)	199 (2.3%)	889 (3.4%)	390 (3.3%)	528 (2.7%)	5,315
<b>TOTALS</b>	<b>68,836</b>	<b>32,935</b>	<b>8,722</b>	<b>26,520</b>	<b>11,847</b>	<b>19,632</b>	

Table 17-A

Product Type/Code	Buck Deer - General Season Western Oregon Tag (0156A)	Buck Deer - General Season Archery Tag (0156B)	Fee Pheasant Permit (182)	Upland Game Bird Validation (210)	Waterfowl Validation (0205A)	Combined Angling Tag (132)	TOTALS:
0-11	106 (2.1%)	17 (0.8%)	0 (0%)	36 (3%)	55 (0.6%)	5,452 (15.4%)	5,666
12-17	1,144 (22.8%)	330 (14.9%)	24 (13.2%)	399 (33.2%)	1,498 (17%)	8,174 (23.1%)	11,569
18-24	740 (14.8%)	265 (12%)	21 (11.5%)	145 (12.1%)	859 (9.7%)	2,394 (6.8%)	4,424
25-34	1,156 (23.1%)	675 (30.4%)	55 (30.2%)	254 (21.1%)	1,622 (18.3%)	5,029 (14.2%)	8,791
35-44	812 (16.2%)	467 (21.1%)	25 (13.7%)	150 (12.5%)	1,931 (21.8%)	4,534 (12.8%)	7,919
45-54	460 (9.2%)	274 (12.4%)	30 (16.5%)	93 (7.7%)	1,399 (15.8%)	3,746 (10.6%)	6,002
55-59	209 (4.2%)	89 (4%)	7 (3.8%)	37 (3.1%)	587 (6.6%)	936 (5.5%)	2,865
60-64	167 (3.3%)	70 (3.2%)	8 (4.4%)	31 (2.6%)	467 (5.3%)	1,934 (5.5%)	2,677
65-70	143 (2.9%)	18 (0.8%)	8 (4.4%)	42 (3.5%)	274 (3.1%)	1,377 (3.9%)	1,862
71+	71 (1.4%)	12 (0.5%)	4 (2.2%)	16 (1.3%)	162 (1.8%)	844 (2.4%)	1,109
<b>TOTALS</b>	<b>5,008</b>	<b>2,217</b>	<b>182</b>	<b>1,203</b>	<b>8,854</b>	<b>35,420</b>	

Table 17-B

Tables 17-A and 17-B showcase a series of license products purchased by the new pandemic participants in 2020, by gender identification. Table 17-A indicates that Annual Angling License, Annual Hunting License, Annual Shellfish License, One Day Angling & Shellfish, and One Day Angling all saw the greatest proportion of participation between the ages of 18-54. The highest proportion within that age bracket was concentrated within adults aged 25-34. The Annual Combination License, not surprisingly, saw the largest proportion of purchases by youth as it includes the youth license (which is a combination license) in its totals. Table 17-B across the board indicates a similar proportion of participation between adults

aged 18-54 as in Table 17-A, but with larger proportions of youth participation aged 12-17. Youth, in particular participated in greater proportions in the following license products: Buck Deer General Season Western tag, Buck Deer General Season Archery tag, Upland Game Bird Validation, Waterfowl Validation, and Combined Angling Tag. Upland Game Bird Validation stands out as the highest proportion of participation (33.2% of purchases) that took place amongst the 12-17 age bracket. Combined Angling Tag also saw a markedly higher proportion of youth aged 0-17 but that is to be expected as it also includes the youth version of that tag in its totals.

## Survey

### Key Findings

- Participants felt hunting and/or angling was a healthy recreational option and they had time to do it
- Stress relief was a top reason for participation for half of anglers/hunters
- Most new customers had hunting and fishing experience earlier in life
- Participants are very or extremely likely to purchase again in 2021
- 1/3 of new customers have no outdoors mentor
- New customers desire where-to and how-to information

In order to fully assess customer preferences, a survey was developed to gain a deeper understanding of customer behavior. The survey was primarily designed to evaluate how to best to retain the new cohort of customers brought on by the pandemic. The survey asked a wide range of questions, with themes related to past wildlife-based recreation history, self-identification, skill level, and future purchase intentions. The survey also collected demographic information to further refine future marketing and outreach efforts based on age, ethnicity, gender and state residency.

### Survey Methodology

The survey sample was comprised of ODFW customers who fit certain customer criteria. Five separate subsamples created the overall stratified sample from the ODFW customer base. The definitions of these sub-samples can be seen below:

- New 2020 – Brand new customers who have not been in the ODFW license sales system before 2020
- New 2019 - Brand new customers who have not been in the ODFW license sales system before 2019
- New 2018 - Brand new customers who have not been in the ODFW license sales system before 2018
- Regular Anglers - ODFW customers who have purchased an angling license in the last five years
- Regular Hunters - ODFW customers who have purchased a hunting license in the last two years

These sub-samples are required to assess these groups as compared to a control group. For example, survey results from New 2020 customers should be compared to New 2019 and New 2018 customers to see how 2020 specific variables affected customer responses. Because these groups are not mutually exclusive<sup>1</sup>, customers who were considered New 2020 were not included in any other group. Once a full list of these customers was created, a random sample for each of these groups was taken and 10,000 customers were included in each sub-sample. Once these sub-samples were combined, we had a final

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<sup>1</sup> A new customer can be considered a regular angler or hunter based on the sampling criteria as defined.

overall sample of approximately 50,000. Because of undeliverable emails, the survey system recognized a final sample of 49,855. The survey instrument was identical for all potential respondents in the final sample.

In order to determine the viability of questions and answer choices, the survey was piloted three times. ODFW employees participated in the first two pilot surveys and gave significant feedback. The third was a customer pilot where a small portion of the full sample (548) was selected. The final survey invitation was sent to the full sample (excluding pilot participants) in December 2020 and followed a modified Dillman Total Design Survey Method (Dillman 1978). The survey was open for 28 days and included three reminder emails. This time period allowed the survey to assess 2020 wildlife-based recreation by allowing these hunts and angler trips to occur. There was a monetary incentive of a \$50 gift card to increase participation in the survey.

The final response rates by sub-sample can be seen in table 19. There were significantly higher response rates from “Regular” customers than “New” customers. Care should be taken to look at these groups individually, since their drivers for participation can vary significantly.

Final Sample	Respondents	Sample	Response rate
New 2020	1138	9667	11.77%
New 2019	917	9690	9.46%
New 2018	1430	9599	14.90%
Regular Angler	2852	9667	29.50%
Regular Hunter	3325	9623	34.55%
<b>Total</b>	9662	48246	20.03%

Table 18

## Results

### New 2020 Respondents

Analysis of the “New 2020” (N=1138) respondents provides the best lens to approach their retention as customers in 2021 and beyond.

### Previous Experience

When asked about previous experience, most New 2020 respondents had previous experience with some form of wildlife-based recreation. Table 19 shows that New 2020 customers had significant experience with angling and wildlife viewing. Customers didn’t have as much experience with shellfishing and hunting, although about half of them had done it at least once. Shellfishing only happens at the coast, so there would presumably be higher rates of experience closer to coastal regions. Table 20 takes this a step further and asks how much of this experience was gained as a youth. When table 19 and table 20 are looked at together, we see that the New 2020 customers had much of their experience as a youth (defined as younger than 18). This suggests that most of the experience these respondents acquired was ingrained in them from an early age. This experience can be leveraged to make it easier for future angling participation in these customers.

Have you ever participated in the following activities?	I have tried this activity at least once	
	I have never tried this activity	
Angling	124 (10.9%)	1014 (89.1%)
Hunting	602 (52.9%)	536 (47.1%)
Shellfishing	537 (47.2%)	601 (52.8%)
Wildlife Viewing	214 (18.8%)	924 (81.2%)

Table 19

Have you ever participated in the following activities as a youth?	I participated in this activity at least once, as a youth		
	I never participated in this activity as a youth		I participated in this activity a lot, as a youth
Angling	164 (14.5%)	277 (24.4%)	693 (61.1%)
Hunting	621 (55.6%)	194 (17.4%)	302 (27.0%)
Shellfishing	653 (59.1%)	210 (19.0%)	242 (21.9%)
Wildlife Viewing	238 (21.3%)	256 (23.0%)	621 (55.7%)

Table 20

### Pandemic Participation

Respondent participation in the face of COVID-19 related closures is of particular interest from the survey. Table 21 shows how the pandemic affected participation of New 2020 respondents. New 2020 anglers and wildlife viewers had similar levels of impact, with approximately 85% either decreasing or keeping their participation levels the same. We see a similar pattern with hunting and shellfishing with approximately 93% and 90% decreasing or keeping their participation levels the same, respectively. While this result is intuitive from a purely pandemic related lens, it is counterintuitive when looking through the ODFW product sales or revenue lens. A follow-up question was asked of people who either decreased or increased participation because of the COVID-19 pandemic. These questions were broken down by activity. Table 22 shows the top three reasons the COVID-19 pandemic either increased or decreased participation. In general, the top reasons why people increased participation was because they felt it was a safe activity to do, they had more time, and they desired stress relief related to the pandemic. These reasons were consistent across the four activities. This presents a challenge for long-term retention efforts. As more people are vaccinated and restrictions on other activities are lifted, these new participants may shift back to their previous routines and leisure activities like travel, organized sports, movies, etc. Table 23 covers the reasons that people decreased participation due to the COVID-19 pandemic. In general, reducing travel and site closures were responsible for most of the decrease in participation. Income also played a role, presumably from the employment variability in the state. An important goal of the retention effort is to encourage participants to continue fishing and hunting even after life returns to “normal.”

Did the COVID-19 pandemic affect your participation in the following activities in 2020?	Did the COVID-19 pandemic affect your participation in the following activities in 2020?		
	Did not affect my participation	Decreased my participation	Increased my participation
Angling	468 (46.9%)	373 (37.4%)	157 (15.7%)
Hunting	359 (69.7%)	119 (23.1%)	37 (7.2%)
Shellfishing	334 (57.6%)	186 (32.1%)	60 (10.3%)

Wildlife Viewing	456 (50.4%)	316 (35.0%)	132 (14.6%)
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Table 21

**Increase Participation  
(Select all that apply)**

Angling	Hunting	Shellfishing	Wildlife viewing
I view outdoor recreation as a safe activity during the pandemic. (76%)	I view outdoor recreation as a safe activity during the pandemic. (68%)	I view outdoor recreation as a safe activity during the pandemic. (68%)	I view outdoor recreation as a safe activity during the pandemic. (74%)
I had more time to spend on recreation. (64%)	I had more time to spend on recreation. (62%)	My other vacation travel options were limited. (56%)	I had more time to spend on recreation. (64%)
Pandemic related stress relief was important. (55%)	Pandemic related stress relief was important. (54%)	I had more time to spend on recreation. (51%)	Pandemic related stress relief was important. (61%)

Table 22

**Decrease Participation  
(Select all that apply)**

Angling	Hunting	Shellfishing	Wildlife viewing
I chose not to travel due to the pandemic. (53%)	I chose not to travel due to the pandemic. (48%)	I chose not to travel due to the pandemic. (50%)	I chose not to travel due to the pandemic. (61%)
My recreation sites were closed. (52%)	My recreation sites were closed. (33%)	My recreation sites were closed. (41%)	My recreation sites were closed. (46%)
I had less income. (25%)	I had less income. (31%)	A reservation at my preferred recreation site was unavailable. (25%)	A reservation at my preferred recreation site was unavailable. (23%)

Table 23

**Future Participation**

Forecasting future participation is a critical component for ODFW agency planning. We asked a series of questions trying to ascertain the likelihood that New 2020 customers would purchase again in 2021. We asked both direct and indirect questions about their future purchase intentions, as well as interest in outdoor recreation in general. We started by asking: “Once the Pandemic is over, how likely are you to participate in wildlife-based recreation?” Table 24 shows that the vast majority are extremely likely to continue to participate in this type of recreation. If we include those who are somewhat and very likely, this number jumps to 92%. This points to a significant window for potential retention, as these customers are likely to be stay engaged in these types of activities. This participation is not assured, however, since intention does not always lead to action. One priority for the retention effort is to encourage new customers to act on their intent by actually purchasing a license and going fishing or

hunting. Tables 25-29 show the results from a question assessing their behavioral intentions related to future ODFW purchases. These tables are broken up by self-identification<sup>2</sup>.

Table 25 looks at the future purchasing intentions of self-identified anglers and shows that most of these respondents (76%) are planning on buying a 2021 angling license. However, there seems to be a significant gap for other activities, as no other license type gets over 50%. Conversely, more than 50% of these self-identified anglers are not planning on purchasing a hunting license, suggesting that there is not much overlap from anglers to hunters. Table 26 looks at the future purchasing intentions of self-identified hunters and shows that most of these respondents (63%) are planning on buying a 2021 hunting license. In contrast to the self-identified anglers, the majority of these self-identified hunters are also planning on purchasing an angling license. These hunters were unlikely to purchase a shellfish license, with only 35% planning a future shellfish license purchase. This is a marked difference from anglers, as this result suggests that there is some overlap from hunters to other activities. This also represents a potential outreach target – encouraging hunters to buy a fishing license.

Table 27 looks at the future desire to purchase of self-identified shellfishers and shows that most of these respondents (73%) are planning on buying a 2021 shellfishing license. Again, the majority of these respondents are also planning on purchasing an angling license and to a lesser extent, a Wildlife Area Parking Permit. These shellfishers were unlikely to be planning on purchasing a hunting license, with only 49% selecting that option. These results appear to be more like hunters, and suggests that there is some overlap from shellfishers to other activities, with the exception of hunting. Table 28 looks at the future purchase intentions of self-identified wildlife viewers and shows that most of these respondents (54%) are planning on buying a 2021 wildlife area parking permit. However, there was even interest in purchasing an angling license (64%). One possible reason for this is the non-exclusivity<sup>3</sup> of the Wildlife Area Parking Permit for wildlife viewers. These wildlife viewers were again unlikely to be planning on purchasing a hunting license; 56% indicated they were not likely to buy a hunting license.

Lastly, Table 29 looks at the future desire to purchase by those who didn't self-identify as an angler, hunter, shellfisher or wildlife viewer. This cohort of New 2020 customers are of particular interest, as they have the least connection to wildlife-based recreation. Most of these respondents are planning on buying a 2021 angling license and wildlife area parking permit (46% and 41% respectively). This follows the overall trend of past experience seen in table 28 but with less purchases planned. These respondents were unlikely to be planning on purchasing a hunting license, with 64% selecting that option. These results appear to be more like wildlife viewers.

Once the Pandemic is over, how likely are you to participate in wildlife-based recreation?	#
Extremely unlikely	14 (1%)
Very unlikely	14 (1%)
Somewhat unlikely	12 (1%)
Neutral	48 (4%)

<sup>2</sup> The question: "How would you describe yourself?" was asked in the survey and is the primary metric for self-identification. There was an option for angling, hunting, shellfishing, wildlife viewing and none of the above.

<sup>3</sup> Non-exclusivity is defined here as not needing to purchase a product from ODFW to participate in said activity. That is not the case for fishing, hunting and shellfishing (with the exception of free fishing weekends and free licenses).

Somewhat likely	73 (6%)
Very likely	274 (24%)
Extremely likely	702 (62%)

Table 24

<b>Angler 2021 purchase intentions</b>	I will not be making a purchase	I am unsure if I will make a purchase	I plan on making a purchase	I already made a 2021
<b>Angling</b>	<b>32 (5%)</b>	<b>83 (13%)</b>	<b>525 (76%)</b>	<b>43 (6%)</b>
Hunting	287 (51%)	112 (20%)	145 (26%)	19 (3%)
Shellfishing	205 (36%)	149 (26%)	190 (33%)	32 (6%)
Wildlife Area	125 (21%)	153 (26%)	257 (43%)	58 (10%)
Parking Permit				

Table 25

<b>Hunter 2021 purchase intentions</b>	I will not be making a purchase	I am unsure if I will make a purchase	I plan on making a purchase	I already made a 2021
Angling	32 (12%)	51 (19%)	169 (63%)	17 (6%)
<b>Hunting</b>	<b>29 (11%)</b>	<b>55 (21%)</b>	<b>166 (63%)</b>	<b>14 (5%)</b>
Shellfishing	79 (35%)	56 (25%)	79 (35%)	12 (5%)
Wildlife Area	43 (19%)	54 (23%)	115 (49%)	21 (9%)
Parking Permit				

Table 26

<b>Shellfisher 2021 purchase intentions</b>	I will not be making a purchase	I am unsure if I will make a purchase	I plan on making a purchase	I already made a 2021
Angling	23 (11%)	32 (15%)	147 (68%)	13 (6%)
Hunting	85 (49%)	41 (23%)	44 (25%)	5 (3%)
<b>Shellfishing</b>	<b>15 (7%)</b>	<b>28 (12%)</b>	<b>165 (73%)</b>	<b>17 (8%)</b>
Wildlife Area	32 (16%)	53 (26%)	104 (52%)	12 (6%)
Parking Permit				

Table 27

<b>Wildlife Viewer 2021 purchase intentions</b>	I will not be making a purchase	I am unsure if I will make a purchase	I plan on making a purchase	I already made a 2021
Angling	66 (14%)	71 (15%)	295 (64%)	31 (7%)
Hunting	222 (56%)	67 (17%)	94 (24%)	12 (3%)
Shellfishing	145 (34%)	105 (25%)	151 (36%)	21 (5%)
<b>Wildlife Area</b>	<b>53 (12%)</b>	<b>101 (22%)</b>	<b>246 (54%)</b>	<b>56 (12%)</b>
Parking Permit				

Table 28

No self-identification 2021 purchase intentions	I will not be making a purchase	I am unsure if I will make a purchase	I plan on making a purchase	I already made a 2021
Angling	38 (22%)	52 (30%)	79 (46%)	3 (2%)
Hunting	103 (64%)	26 (16%)	29 (18%)	3 (2%)
Shellfishing	67 (40%)	57 (34%)	42 (25%)	1 (1%)
Wildlife Area Parking Permit	31 (18%)	64 (37%)	71 (41%)	8 (5%)

Table 29

Future purchases are also affected by the presence of a mentor that can introduce a mentee to wildlife-based recreation and or the use of social resources to learn and participate in these activities. We wanted to see the impact of these two components on future purchase intentions. Tables 30 and 31 show cross tabs of future purchase intentions with two other binary questions:

Have you used any social resource (people, groups, organizations, etc.) to help you continue learning or participating in wildlife-based recreation (angling, hunting, shellfishing and/or wildlife viewing)?

Do you have someone who can introduce you to wildlife-based recreation (angling, hunting, shellfishing and/or wildlife viewing) activities? (ex. Mentor.)

These tables show the impact each of these has on future purchase intentions. They are also broken down by activity, to see how social resources and mentors can affect purchase decisions for different activities. We can start with table 30 which focuses on social resources. We see a difference in the way the yes/no splits depending on the future purchase intentions. Of those planning on making a future angling purchase, there was a larger percentage of people using social resources than those who are not planning on making a purchase (64% vs 51%). We see the same thing for hunting as well, with 69% and 54% respectively. We see small differences in the spread for shellfishing and wildlife area parking permit purchase intentions, but not to a significant degree. This seems to suggest that those planning on making an angling or hunting purchase are supported more by social resources (people, groups, organizations, etc.), whereas those shellfishing and buying wildlife area parking permits are not.

Table 31 focuses on how a mentor<sup>4</sup> affects a customer’s likelihood to plan future purchases. Again, we focus on the difference in the way the yes/no splits depending on the future purchase intentions. Of those planning on making a future angling purchase, there was not any discernable difference in the spread of mentor inclusion. We see the same thing for future shellfishing purchases as well. Hunting showed differences, with 76% and 66% respectively. We see smaller differences in the spread for wildlife area parking permit purchase intentions, but not to a significant degree. This seems to suggest

<sup>4</sup> A mentor in this context is defined as someone who can introduce the respondent to wildlife-based recreation

that those planning on making hunting purchase are supported more by mentorship, whereas those doing other activities are not.

Bottom line – the social aspect of wildlife based recreation can be important, especially for hunters. This reinforces the emphasis on providing that social support (through workshops, follow up connections, etc.)

Social resources	Angling		Hunting		Shellfishing		Wildlife Area Parking Permit	
	Yes	No	Yes	No	Yes	No	Yes	No
I plan on making a purchase.	33 (64%)	19 (36%)	20 (69%)	9 (31%)	22 (50%)	22 (50%)	46 (51%)	44 (49%)
I am unsure if I will make a purchase.	81 (44%)	102(58%)	92 (57%)	69 (43%)	115 (47%)	128 (53%)	126 (49%)	133 (51%)
I will not be making a purchase.	338 (51%)	331 (49%)	125 (54%)	106 (46%)	169 (55%)	140 (45%)	240 (54%)	205 (46%)
I already made a 2021 season purchase.	67 (47%)	76 (53%)	217 (44%)	275 (56%)	163 (47%)	186 (53%)	78 (43%)	102 (57%)

Table 30

Someone who can introduce	Angling		Hunting		Shellfishing		Wildlife Area Parking Permit	
	Yes	No	Yes	No	Yes	No	Yes	No
I plan on making a purchase.	469 (70%)	202 (30%)	179 (76%)	57 (24%)	218 (70%)	95 (30%)	313 (70%)	134 (30%)
I am unsure if I will make a purchase.	127 (68%)	60(32%)	112 (69%)	51 (31%)	172 (71%)	69 (29%)	187 (73%)	71 (27%)
I will not be making a purchase.	98 (68%)	46 (32%)	325 (66%)	167 (34%)	244 (68%)	114 (32%)	120 (64%)	66 (36%)
I already made a 2021 season purchase.	34 (65%)	18 (35%)	19(65%)	10 (35%)	27 (66%)	14 (34%)	63 (71%)	26 (29%)

Table 31

Types of Information Desired – Oregon residents

ODFW has a significant amount of educational information to support customers in their wildlife-based recreation. However, customers may have different needs-based on the activity, demographics, experience and other resources available to them. In order to retain our new 2020 customers, we asked what kind of information they wanted to help them continue participating in wildlife based recreation. Table 32 shows the results of these questions when looking at new 2020 resident customers. In general, Where-to information was most desired across all activities. How-to and beginner skills were preferred

similarly to each other while advanced skills were desired least of all. Respondents also had the ability to say that no information would help them at all. This represents the proportion of customers who either have no interest in this activity, or have significant skill and knowledge in the activity. However, since these are new 2020 customers, it is most likely a lack of interest.

	<b>“How-To”</b>	<b>“Where-To”</b>	<b>Beginner skills</b>	<b>Advanced skills</b>	<b>No information would help me participate in this activity.</b>
Angling (fishing)	245 (32%)	404 (53%)	263 (35%)	216 (28%)	198 (26%)
Hunting	154 (22%)	213 (30%)	171 (24%)	116 (16%)	383 (54%)
Shellfishing	241 (33%)	347 (48%)	228 (31%)	131 (18%)	275 (38%)
Wildlife Viewing	152 (22%)	351 (50%)	171 (24%)	176 (25%)	240 (34)%

Table 32

Open-Ended Comments – Oregon Residents

There were a few open-ended questions that asked broad questions assessing deterrents to wildlife-based participation. The first question read: “What has prevented you in the past from participation in wildlife-based recreation? These responses were coded with and summarized in Table 33. A lack of time was identified as the biggest reason that prevented these respondents from participating in wildlife-based recreation in the past. Specifically, work was identified as the single largest specific source of time that prevented recreation. Other notable comments included losses of income and general trip related costs the COVID pandemic. Fishing license price was not identified as a significant deterrent to this type of recreation, nor was weather. Another open-ended question was asked that tried to see what ODFW could do to keep these customers. Coded and summarized responses are seen in Table 34. Keeping fees low and providing information were the two biggest areas of focus for these customers. It is also worth noting that most of these respondents were generally satisfied with ODFW.

<b>What has prevented you in the past from participation in wildlife-based recreation (angling, hunting, shellfishing and/or wildlife viewing)?</b>	
<b>Lack of Time (172)</b>	
Time in general	103
Family obligations	16
Work	49
School	4
<b>Lack of... (78)</b>	
Knowledge	30
Mentor/companions	24
Equipment/Gear	21
Experience	3
<b>Cost (68)</b>	
Income/gen. cost	57
Of licenses	11
<b>Just "COVID" (32)</b>	
<b>My Health (12)</b>	
Generally, My Health	8
A Disability	4
<b>Other (79)</b>	
Safety, crowds, access	15
New OR Resident	15
Fire and Covid closures	15
Complex Regulations	13
Don't like it	11
Weather	10

Table 33

<b>What can ODFW to keep you as a customer in 2021, and beyond?</b>	
Keep up good work, etc.:	74
"Nothing":	16
Keep Fees Low:	46
More information:	35
Provide Access:	20
Ease/Explain Regs:	15
<b>Other (27)</b>	
Guided trips/classes	8
Keep open (COVID)	8
Protect habitat/resource	6
Make ELS/App easier	5

Table 34

## Retention Plan

The 2020 New Participant Retention Plan is comprised of objectives and strategies for many of the ODFW's R3 efforts moving forward. The overall goal is to maintain the 2020 Pandemic Participants as current customers in 2021 and beyond.

### Timeline for Execution

The work to retain the 2020 pandemic participants has long been underway. ODFW initiated a series of R3 efforts early on in 2020 to capitalize on the influx of new customers. ODFW identified the opportunity to connect with and educate these new customers while the Pandemic Opportunity Workgroup conducted the survey, report construction, data mining, and analysis that would help to further inform and refine the R3 initiatives already underway. These preliminary efforts combined with additional strategies born out from the Pandemic Opportunity Workgroup's research findings serve as the foundation of this plan. The key to all of the retention efforts is to: keep new customers aware and participating in fishing, hunting, shellfishing, and wildlife viewing; help new customers increase their skills and comfort level so as to make their experience more rewarding; and to minimize barriers and roadblocks to their current and future participation. Additionally, this plan will need to include coordination and further discussion with other ODFW Division and Region staffs to ensure all possible retentions efforts are being considered and utilized as part of ODFW's retention plan for the 2020 pandemic participants. This will be a critical part of the actual implementation of this plan in the field as our region staff have the day-to-day contact with customers.

### Goal:

Retain the 2020 Pandemic Participants as current ODFW customers in 2021 and beyond.

### Objectives:

1. Create and enhance educational offerings for current and prospective customers
2. Orient current and prospective customers to ODFW and its recreational offerings
3. Increase engagement through touch points with current customers
4. Enhance support structures to aid in retaining current customers
5. Maintain evaluation processes to track, measure and analyze plan performance

<b>Objective 1: Create and enhance educational offerings for current and prospective customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
<b>1.1:</b> Identified gaps in existing 'how-to' and 'where-to' resources on MyODFW.com and began development of priority products focusing heavily on fishing content first	<b>A:</b> Developed detailed and searchable inventory of all educational content available on MyODFW.com, by subject category <b>B:</b> Developed new web articles designed to help new anglers and new hunters more readily find information and educational resources helping them get the most out of their license purchases	December 2020
	<b>C:</b> Development of additional 'how-to' and 'where-to' resources for use on all outreach platforms	On-going
<b>1.2:</b> Piloted new Education Module functionality within MyODFW.com to	<b>A:</b> Craft and launch new educational module courses for fishing	Spring 2021

<b>Objective 1: Create and enhance educational offerings for current and prospective customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
allow customers to learn concepts at a self-guided pace through a subject-specific online tutorial (Launched September 2020)	<b>B:</b> Craft new educational module courses for waterfowl hunting content	Fall 2021
<b>1.3:</b> Identify and explore technological tools to leverage during COVID-19 for educational purposes at scale	<b>A:</b> Consider development of ODFW webinars or seminars showcasing subject-matter experts on topics outlined as key to retention <b>B:</b> Develop pilot version of virtual forecast event for angling seasons <b>C:</b> Develop pilot version of virtual forecast event for hunting seasons <b>D:</b> Identify additional online offerings for new customers	Summer 2021  Fall 2021  Fall 2021  On-going

<b>Objective 2: Orient current and prospective customers to ODFW and its recreational offerings</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
<b>2.1:</b> Developed beginner landing pages on MyODFW.com to help orient new participants on key facets needed to learn to be able to start participating	<b>A:</b> Launch Start Fishing page <b>B:</b> Launch Start Hunting page <b>C:</b> Launch Start Clamming page <b>D:</b> Launch Start Crabbing page	March 2021 March 2021 March 2021 March 2021
<b>2.3:</b> Improvements to customer interface in ELS for consistency with MyODFW.com to increase cart completion and reduce brand dilution	<b>A:</b> Work with ELS vendor to identify and deploy solutions to address branding, navigational links and contact information <b>B:</b> Work with ELS vendor to explore possibility of reducing quantity of clicks required to complete a purchase	August 2020 and on-going  August 2020 and on-going
<b>2.4:</b> Develop and launch new and expanded email campaigns focused on personalization	<b>A:</b> Improved welcome email campaign <b>B:</b> New customer email campaign	Spring 2021 Spring 2021
<b>2.5:</b> Develop new video and written tutorials for how to use and interpret the regulations	<b>A:</b> Craft script and film video tutorial on how to read the sportfishing regulations <b>B:</b> Craft script and film video tutorial on how to read the big game hunting regulations <b>C:</b> Craft script and film video tutorial on how to read the game bird hunting regulations <b>D:</b> Consider development of two-page insert within sportfishing regulations to showcase Agency products, critical messaging, and breakdown the key	Spring 2021  Fall 2021  Fall 2021  Summer 2021

<b>Objective 2: Orient current and prospective customers to ODFW and its recreational offerings</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
	<p>steps to using the sportfishing regulations</p> <p><b>E:</b> Consider development of two-page insert within big game hunting regulations to showcase Agency products, critical messaging, and breakdown the key steps to using the big game regulations</p> <p><b>F:</b> Consider development of two-page insert within game bird hunting regulations to showcase Agency products, critical messaging, and breakdown the key steps to using the game bird regulations</p>	<p>Summer 2021</p> <p>Summer 2021</p>

<b>Objective 3: Increase engagement through touch points with current customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
<b>3.1:</b> Introduce follow-up techniques with previous workshop attendees to provide for continued education after class attendance	<b>A:</b> Piloted follow-up Zoom meetings with previous educational workshop attendees and will continue offering follow-up touch points with workshop instructors	February 2021 and on-going
	<b>B:</b> Further development and use of ODFW Introductory and Beginner Facebook Groups focused on workshop and class attendees	Spring 2021
<b>3.2:</b> Pursue paid advertising to remain top of mind as an outdoor recreational choice in Oregon	<b>A:</b> RBFF awarded \$25,000 grant to pursue OTT (Over-the-Top) advertising targeting the retention of 2020 angling pandemic participants	March – October 2021
	<b>B:</b> Applied for ACI grant to pursue OTT (Over-the-Top_ advertising targeting the retention of 2020 hunting pandemic participants	March – December 2021 (Award TBD)
	<b>C:</b> Design new advertisements and storytelling for inclusion in Travel Oregon media channels (traveloregon.com, the Travel Oregon Visitors Guide)	January 2021 and on-going
	<b>D:</b> Evaluate social media advertising opportunities	On-going
	<b>E:</b> Consider use of open/unpurchased billboards available for PSAs, renewal	Spring 2021 and on-going

Objective 3: Increase engagement through touch points with current customers		
Strategies	Tactics	Timeline
	<p>campaign messaging throughout Oregon market</p> <p><b>F:</b> Consider placement of radio advertising to target specific segments of the pandemic participant cohort for retention</p>	<p>Summer 2021 and on-going</p>
<p><b>3.3:</b> Launched ODFW Messenger, a monthly e-newsletter designed to showcase current opportunity, crucial storytelling for the Agency, and other information related to the use of ODFW license products (Launched May 2020)</p>	<p><b>A:</b> Recorded and promoted welcome message video from Director Melcher for new customers inclusive of thank you message for continuing customers</p> <p><b>B:</b> Promoted the availability of licenses for the 2021 season</p> <p><b>C:</b> Developed and promoted holiday gift guides for angler, and hunters</p> <p><b>D:</b> Emphasizes new availability of group purchase and opportunity to give a license as a gift</p> <p><b>E:</b> Targeted waterfowl and game bird hunters in alignment with the increase seen in those types of license sales</p> <p><b>F:</b> Identify and film additional video messages with Director Melcher highlighting key messaging for strategic release throughout the year</p>	<p>Piloted November 2020</p> <p>Winter 2020</p> <p>Winter 2020</p> <p>November 2020 – January 2021</p> <p>October 2020</p> <p>On-going</p>
<p><b>3.4:</b> Develop and launch new and expanded email campaigns focused on personalization</p>	<p><b>A:</b> Develop and launch repeat customer email campaign (with particular focus on recently reactivated customers)</p> <p><b>B:</b> Develop and launch a re-engagement email campaign targeting recently dropped (2019 or 2020)</p> <p><b>C:</b> Develop and launch a nurture email campaign to help people through the Outdoor Recreation Adoption Model process of their customer journey</p> <p><b>D:</b> Improve outreach methods within ecommerce receipts</p> <p><b>E:</b> Leverage re-posting of stocking schedule in fishing license renewal campaign</p>	<p>Spring 2021</p> <p>Spring 2021</p> <p>Summer 2021</p> <p>Summer 2021</p> <p>Spring 2021</p>
<p><b>3.5:</b> Increase earned outreach through proactive placement techniques</p>	<p><b>A:</b> Expand earned outreach to promote access and opportunity at local fishing and hunting spots that have recently finished renovations</p> <p><b>B:</b> Expand earned outreach to locally networked groups of anglers, and</p>	<p>Spring 2021 and on-going</p> <p>Spring 2021 and on-going</p>

<b>Objective 3: Increase engagement through touch points with current customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
	hunters to promote geographically appropriate recreational areas for use	
<b>3.6:</b> Develop partnerships with license vendors to promote license and product sales	<p><b>A:</b> Re-establish in-store endcaps with program to encourage individuals to purchase Trout Fishing Kit for Beginners – target families, youth, known adult-onsets, newbies</p> <p><b>B:</b> Consider possibility of ODFW offering a discount code for the certain product(s) at sporting goods stores that participate in end-cap displays</p> <p><b>C:</b> Pursue partnership opportunities with license vendors to provide incentives for license renewals and continuing participation</p> <p><b>D:</b> Discuss options for pro-staff and other influencers to drive unique traffic to MyODFW.com or ODFW channels</p>	<p>Summer 2021</p> <p>Summer 2021</p> <p>Summer 2021</p> <p>Fall 2021</p>

<b>Objective 4: Enhance support structures to aid in retaining current customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
<b>4.1:</b> Developed 2021 Editorial Calendar inclusive of key events and dates for ODFW, seasonal opportunities, special promotional periods, holidays, and introductory resources to help retain newbies – to be leveraged across all outreach platforms	<p><b>A:</b> ODFW Messenger to leverage editorial calendar for monthly editorial development of issues</p> <p><b>B:</b> Explore possibilities for including social media content</p>	<p>August 2020 and on-going</p> <p>On-going</p>
<b>4.2:</b> Improve ease of use within the electronic licensing system (ELS) to reduce quantity of abandoned carts, and reduce ‘friction points’	<p><b>A:</b> Identify location of all friction points within ELS</p> <p><b>B:</b> Work with ELS vendor to prioritize solutions to remove friction points</p> <p><b>C:</b> Analyze analytics to determine various thresholds at which customers regularly abandon carts and explore ways to improve customer education about those products</p> <p><b>D:</b> Analyze analytics to determine which specific license products or product combinations that results in an increase in cart abandonment</p>	<p>August 2020 and on-going</p> <p>August 2020 and on-going</p> <p>August 2020 and on-going</p> <p>August 2020 and on-going</p> <p>August 2020 and on-going</p>

<b>Objective 4: Enhance support structures to aid in retaining current customers</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
	<b>E:</b> Develop solutions to reduce overall cart abandonment and increase completion of sale	
<b>4.3:</b> Explore expanded functionality within electronic licensing system (ELS) to allow for promotional flexibility	<b>A:</b> Consider direct product offering (i.e., Trout Fishing Kit for Beginners) in ELS inclusive of mailing fee <b>B:</b> Explore possibilities for push notification with MyODFW app and email within ELS	Summer 2021  Summer 2021

<b>Objective 5: Maintain evaluation processes to track, measure and analyze plan performance</b>		
<b>Strategies</b>	<b>Tactics</b>	<b>Timeline</b>
<b>5.1:</b> Review the plan monthly to make course corrections to underperforming strategies	<b>A:</b> Review project planning to ensure outreach and engagement initiatives remain on-time, on-scope, and on-budget <b>B:</b> Generate list of all media opportunities, partnerships, placement, and advertising for tracking	Monthly and on-going  Monthly and on-going

## Future Research

While much insight has been gained through the analysis conducted over the past six months, the immediate focus has been on understanding and retaining new customers who began wildlife-based recreation during the pandemic. Moving forward, there are many questions that still need to be addressed. There are other retention related topics that merit further investigation to better understand the needs of new customers and refine R3 strategies. The following list is of potential research avenues that have been identified as topics areas worth pursuing.

Research topics identified further analysis:

- **Youth Participation:** 2020 sales data revealed a significant increase in youth participation. Our pandemic survey was only sent to individuals 18 years and older, so little is known about this group of customers. There are also questions about whether the cohort youth who were drawn into hunting and fishing during this time will remain engaged or whether the drop in participation typically seen in 18-24 still occur at a similar rate to that of other cohorts. A cross sectional study of youth cohorts could better inform ODFW on key factors that influence long term participation amongst youth. This could be expanded to include a better understanding of the effectiveness of mentored youth hunting programs.
- **Behavioral Change:** There are questions that are related to the area of behavioral economics around whether survey participants' intended future participation and purchase behaviors are reflective of their actual behavior. If links can be found there is a potential to develop a multivariate analysis (probability based predictive models) that could help ODFW gauge the

likelihood of license purchase for certain groups of customers. We could include follow-up data analysis of actual purchases to identify key drivers that bridge the gap between interest and intended purchase and actual purchases.

- Onboarding Experience Evaluation: It would be exceptionally valuable in R3 pursuits to better understand the experience that new and reactivated customers have to onboarding to ODFW channels, opportunities, and programs. This insight would inform significant Information and Education division outreach initiatives.
- Customer Personas: There would be great value in defining Customer Personas for ODFW, this would strengthen the effectiveness of marketing efforts and allow for more effective outreach, new product development, product pricing, and promotional recommendations.
- Analysis of preferred activities – Using a maxDiff framework, assess the preferences of these new customers related to all activities to better understand people’s behaviors related to wildlife-based recreation. This would be important to try and better predict post pandemic behavior and customers sales.
- Wildlife Viewing Study: Non-consumptive values analysis for Oregon wildlife viewers. It would be great to understand more about this group of participants. What are the motivations of their trips, where do they go and what is the frequency of their trips. This work would help identify best enhancements to wildlife viewing.
- Customer Satisfaction – Follow up assessment of new customer satisfaction with the wildlife-based recreation ODFW provides. This would allow ODFW to better understand R3 considerations to ensure maximum retention of these customers.
- Customer Demographics: Conduct detailed analysis to understand ODFW customer base and demographic trends in Oregon. Sub analyses could include:
  - Age Cohort
  - Needs Analysis
  - Demographic Metrics – Churn
  - Saturation rates
  - Trip expenditures
  - Customer lifetime values

## Appendices

- Appendix A: YOY Sales by License/Product Type
- Appendix B: Survey instrument
- Appendix C: Invitation and reminder emails
- Appendix D: Survey Letters Announcing Gift Card Winners

## Appendix A: YOY Sales by License/Product Type

	Actual	Actual	Sales	% Diff
	2019	2020	Diff	2020
<b>* COMBINATION LICENSES *</b>				
SPORTS PAC	35,383	38,135	2,752	7.22%
JUVENILE SPORTS PAC	9,420	10,209	789	7.73%
YOUTH LICENSE	44,485	53,035	8,550	16.12%
COMBINATION	70,268	66,624	(3,644)	-5.47%
SENIOR COMBINATION	3,232	3,042	(190)	-6.25%
PIONEER	61,372	60,023	(1,349)	-2.25%
<b>* ANGLING LICENSES *</b>				
RESIDENT ANGLER	211,575	247,596	36,021	14.55%
SENIOR ANGLER	11,172	11,063	(109)	-0.99%
NR UNIF. SERVICES ANGLER	640	2,633	1,993	75.69%
NR ANGLER	20,823	25,680	4,857	18.91%
ONE-DAY ANGLING & SHELLFISH	17,759	26,896	9,137	33.97%
PREPAID DAILY	35,548	18,648	(16,900)	-90.63%
ONE-DAY	90,632	77,803	(12,829)	-16.49%
TWO-DAY	20,328	12,607	(7,721)	-61.24%
THREE-DAY	19,524	18,093	(1,431)	-7.91%
NR 7-DAY	6,941	4,007	(2,934)	-73.22%
ADULT COMBINED TAG	112,541	116,604	4,063	3.48%
JUV. COMBINED TAG	12,066	14,972	2,906	19.41%
NR COMBINED ANGLING TAG	6,644	7,709	1,065	13.82%
HATCHERY HARVEST TAG	4,562	4,794	232	4.84%
CRBE (Year)	100,445	98,961	(1,484)	-1.50%
CRBE (Day)	77,347	33,874	(43,473)	-128.34%
TWO-ROD ANGLER	23,080	21,495	(1,585)	-7.37%
<b>* SHELLFISH LICENSES *</b>				
RES. ANNUAL SHELLFISH	126,462	133,393	6,931	5.20%
PRE-PAID RES SHELLFISH	21,097	18,648	(2,449)	-13.13%
NR UNIF. SERVICES SHELLFISH	275	1,127	852	75.60%
NR SHELLFISH	11,043	11,769	726	6.17%
PREPAID NR 3 DAY SHELLFISH	15,863	11,396	(4,467)	-39.20%
NR 3 DAY SHELLFISH	16,933	16,331	(602)	-3.69%
<b>* HUNTING LICENSES *</b>				
RESIDENT HUNTER	68,652	73,173	4,521	6.18%
RESIDENT SENIOR HUNTER	1,402	1,342	(60)	-4.47%
RES UNIF. SERVICES HUNTER	1,249	1,534	285	18.58%
NR UNIF. SERVICES HUNTER	571	617	46	7.46%
NONRESIDENT HUNTER	13,694	13,883	189	1.36%
NONRESIDENT 3-DAY BIRD	4,133	3,876	(257)	-6.63%

<b>* HUNTING TAGS/VALIDATIONS</b>				
RES. DEER	129,877	160,274	30,397	18.97%
NONRES. DEER	2,184	2,360	176	7.46%
RES. ELK	65,948	100,027	34,079	34.07%
SPECIAL ELK (DV/Pioneer)	16,909	17,152	243	1.42%
NONRES. ELK	3,792	4,296	504	11.73%
RES. BEAR TAG	60,911	67,914	7,003	10.31%
NONRES. BEAR TAGS	1,656	1,771	115	6.49%
RESIDENT TURKEY TAGS	11,574	15,026	3,452	22.97%
RES. JUVENILE TURKEY TAGS	1,179	1,849	670	36.24%
NONRES. TURKEY TAGS	659	647	(12)	-1.85%
RES. ANTELOPE	2,160	2,123	(37)	-1.74%
NONRES. ANTELOPE	59	56	(3)	-5.36%
RES. BIGHORN SHEEP	76	69	(7)	-10.14%
NONRES. BIGHORN	7	5	(2)	-40.00%
RES. COUGAR	18,161	16,832	(1,329)	-7.90%
NONRES. COUGAR	1,263	1,104	(159)	-14.40%
RES. MTN GOAT	22	25	3	12.00%
NR MTN GOAT	2	2	-	0.00%
PHEASANT TAG	3,123	3,672	549	14.95%
UPLAND BIRD STAMP	25,741	44,779	19,038	42.52%
YOUTH UPLAND BIRD STAMP	2,016	4,388	2,372	54.06%
WATERFOWL STAMP	14,031	29,933	15,902	53.13%
YOUTH WATERFOWL STAMP	1,740	3,655	1,915	52.39%
NR BIRD HUNTER STAMP	3,784	4,121	337	8.18%
NR Unif Services BIRD HUNTER STAMP	79	89	10	11.24%
CONTROLLED HUNT APPs	482,822	509,673	26,851	5.27%
MANDATORY RPTING FEE	18,397	23,042	4,645	20.16%
<b>* WILDLIFE AREA PARKING</b>				
DAILY PERMITS	1,278	3,050	1,772	58.10%
YEARLY PERMITS	2,646	4,967	2,321	46.73%
	2,116,883	2,284,493	167,610	7.34%

Appendix B: Survey Instrument



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Appendix C: Reminder Emails

Appendix D: Survey Letters Announcing Gift Card Winners

[\*\*Pandemic Participation Survey Thank You Letter\*\*](#)

[\*\*Pandemic Participation Survey Gift Card Winner's Letter\*\*](#)