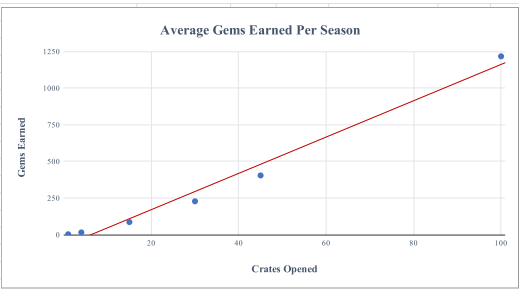


Crowns	US Dollars	Cost per Crown	Cost per Crate (15 Pack)	Cost per Crate (4 Pack)	Cost per Crate (Single)
750	\$7.99	\$0.0107	\$3.55	\$4.00	\$4.26
1500	\$14.99	\$0.0100	\$3.33	\$3.75	\$4.00
3000	\$23.99	\$0.0080	\$2.67	\$3.00	\$3.20
5500	\$39.99	\$0.0073	\$2.42	\$2.73	\$2.91
14000	\$99.99	\$0.0071	\$2.38	\$2.68	\$2.86
21000	\$149.99	\$0.0071	\$2.38	\$2.68	\$2.86

Reward Level	Times Dropped from 8907 Crates [1]	Chance per Crate [6]	Average Cost To Get At Least One (15 pack, 39.99 USD) [2]	Average Cost to Get Enough Gems [3] [4]	Number of Gems to Purchase
Radiant Apex	11	0.12%	\$1,962.48	N/A	N/A
Apex	179	2.01%	\$120.60	\$93.22	400
Legendary	1277	14.34%	\$16.90	\$34.51	100
Epic	1898	21.31%	\$11.37	\$22.77	40
Superior [5]	7646	85.84%	\$2.82	\$8.44	16
Fine	6404	71.90%	\$3.37	\$4.07	5
Common	8717	97.87%	\$2.48	\$2.42	3



[1] Crown Crate Drop rates retrieved from Faunter's Crown Crate Tracker:
<https://docs.google.com/spreadsheets/d/1n1kdywYmajx280QwGj9T1Y8z4GfEMhyQ8kQnKL5g/edit#gid=0>

[2] Pricing was set to the \$39.99 package as its cost per crown nearly matched the larger packages while being more affordable (i.e. more likely to be purchased). The 15 Crown Crate Pack was used because it is vastly more efficient than the other options.

[3] Utilizes 80,000 simulated crate openings to achieve the exponential growth of Gem gains. Restarts for each season of Crown Crate, considering that you will no longer have duplicates. Data taken from here:
<https://docs.google.com/spreadsheets/d/1Zt5oj7PWNEFaTykXhWQQQKV1ekHAjgcJpueRN3C40/htmlview>

And here:
https://www.reddit.com/r/elderscrollsonline/comments/5gok1a/discussion_demystifying_crown_crate_drop_chances/?st=ig5o4uy0&sr=scroll

[4] Regression must be adjusted for low counts to maintain accuracy, as you cannot open negative crates. Also, Common gem purchase equals only 1 crate opened as you are guaranteed to generate a common or enough gems to obtain the common.

[5] Superior drops seem to be chosen as a filler by ZOS, appearing more than Fine. This makes sense, considering it raises the perceived value of the Crate.

[6] It is very possible that ZOS has a mechanic to act as "bad luck protection". However, this does not seem to apply to Radiant Apex rewards if this is in fact the case

10,000 simulations for each scenario:			
Crates Opened		Average Gems Earned	
1		3.37	
4		15.96	
15		86.61	
30		228.38	
45		404.79	
100		1217.48	
Linear Regression y=ax+b used for Epic-Apex		Linear Regression y=ax+b used Common-Superior	
a	12.38538839	a	6.101319018
b	-76.36845596	b	-5.245460123