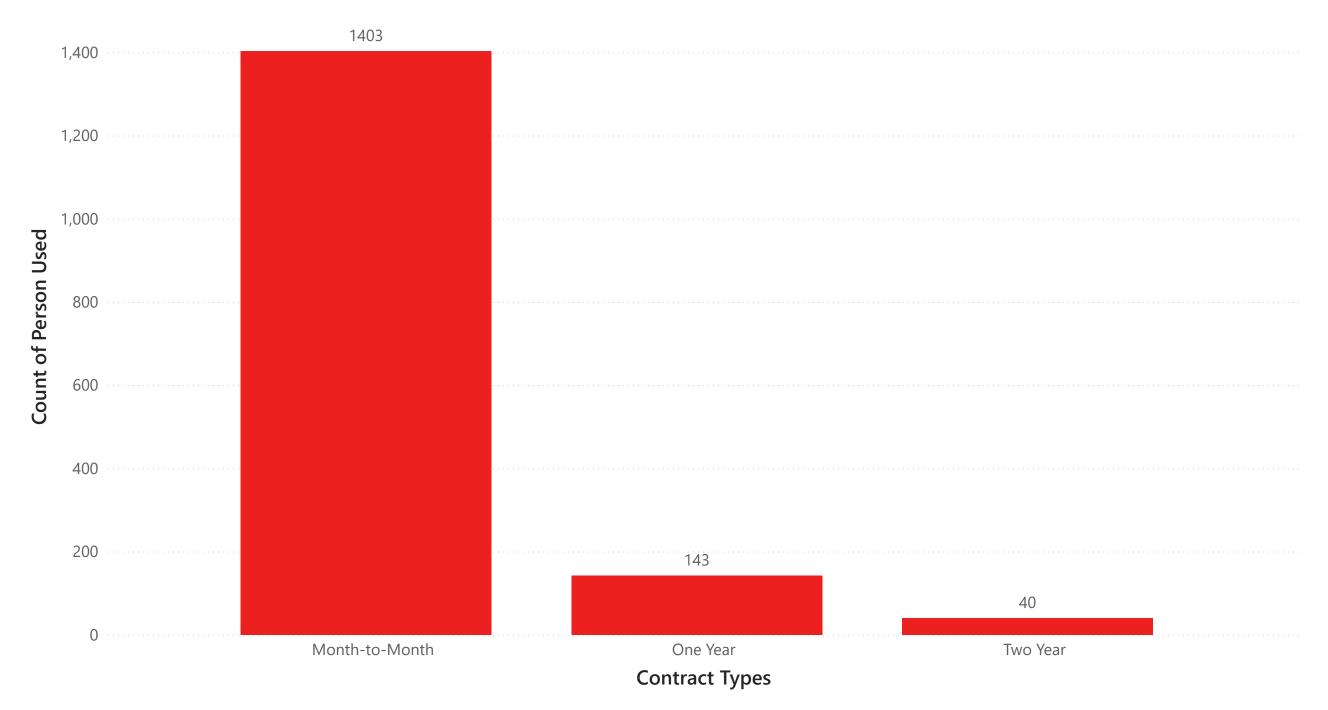
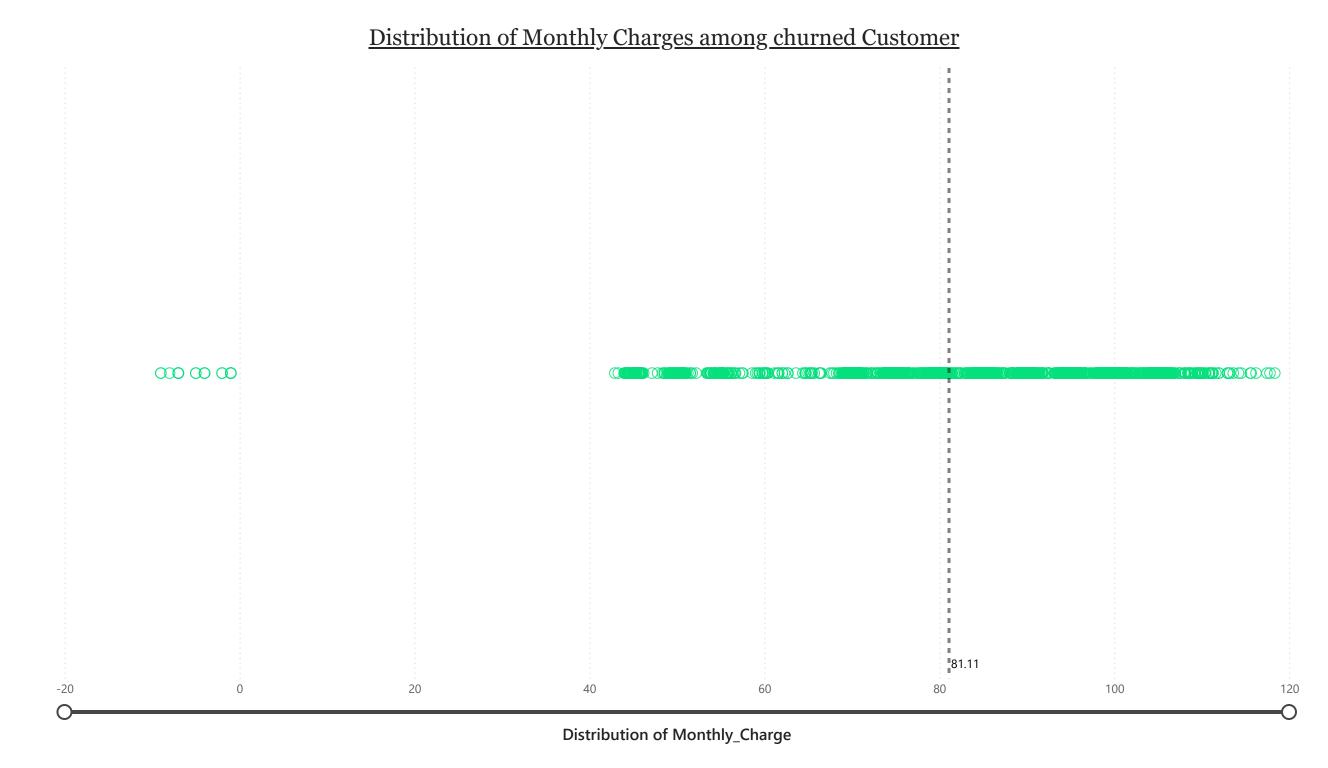
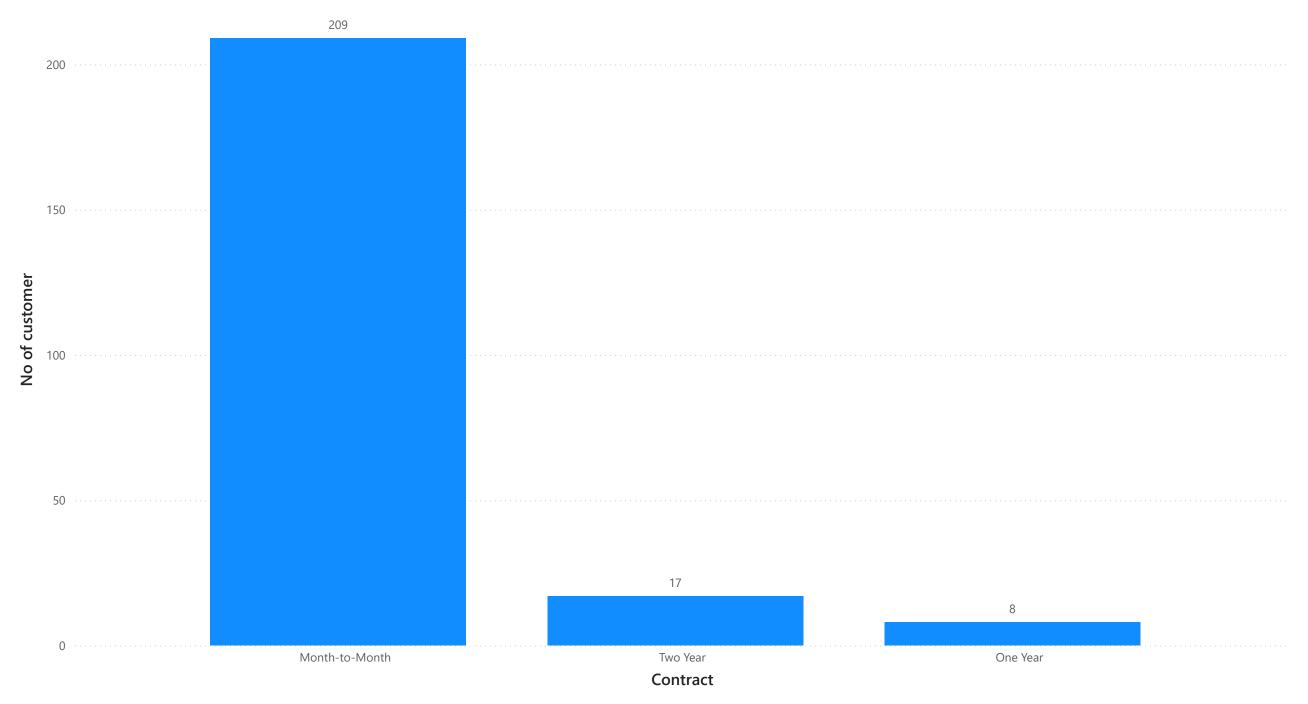
<u>Most Common Contract Types Among Churned Customer</u>

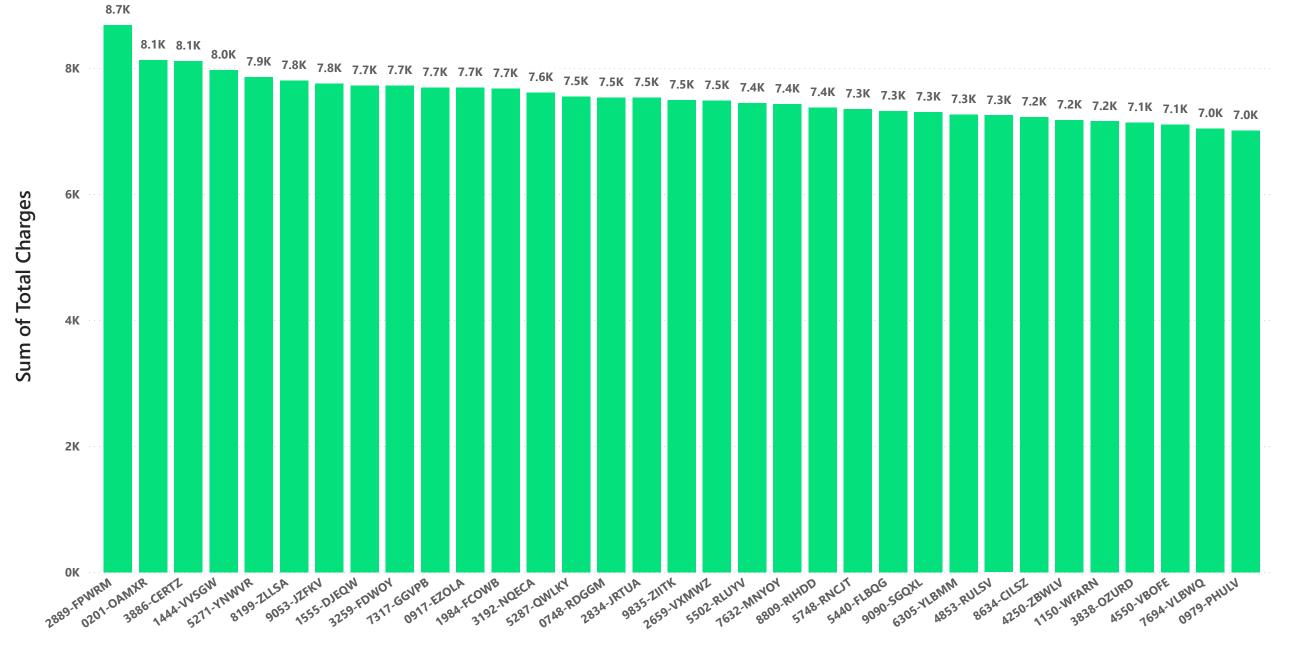




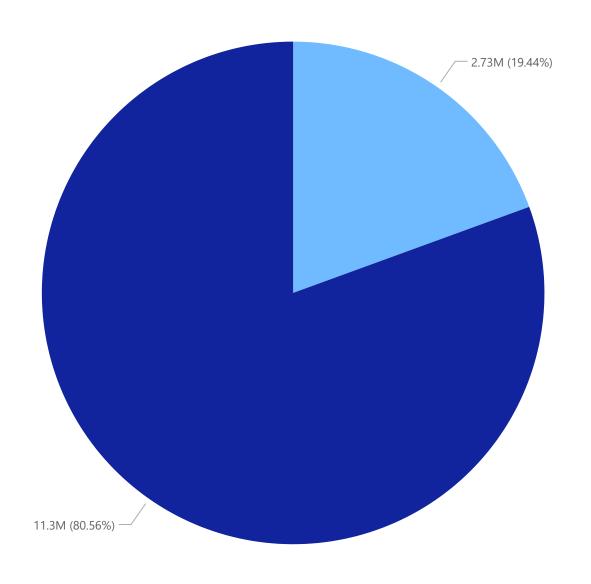
No of customer most prone to churn According to Contract Types



Customers Above 7K who have been Churned

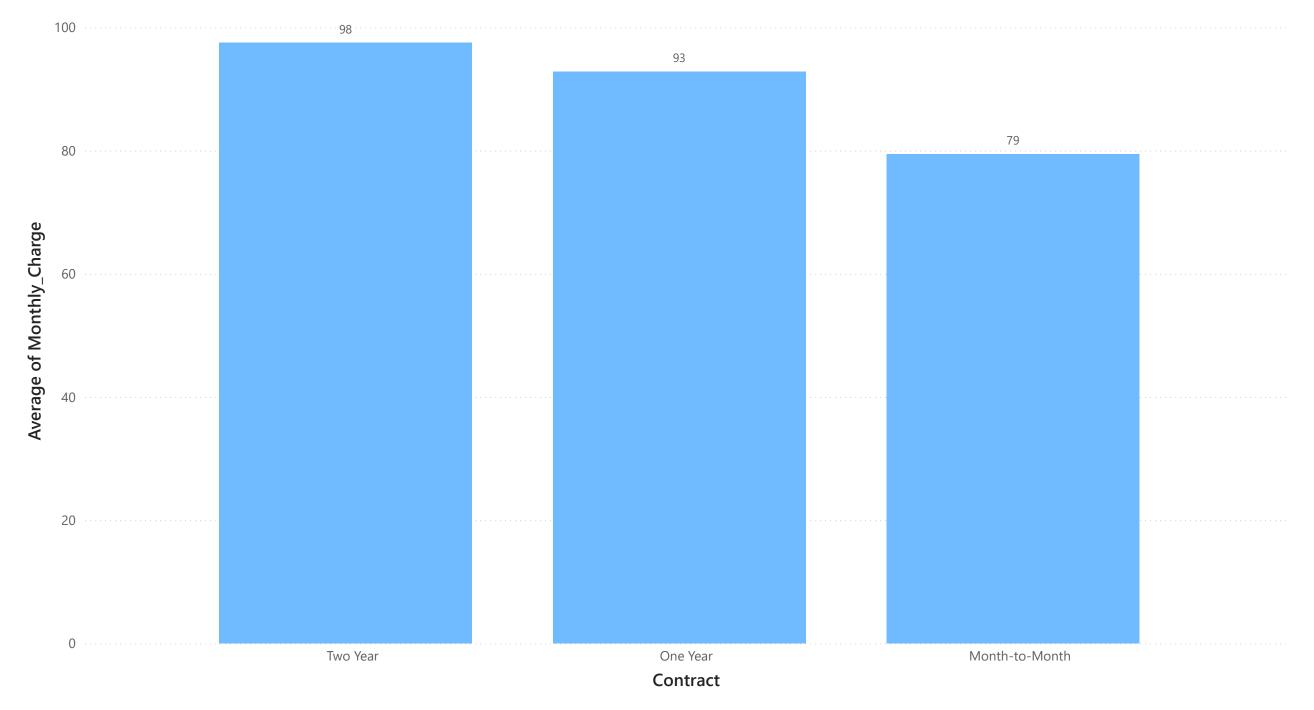


<u>Total Charges Distribution for Churned and Non-Churned Customers</u>



- Churned Customer Total Charges
- Non-Churned Customers Total Charges

<u>Average Monthly Charges by Contract Type among Churned Customer</u>



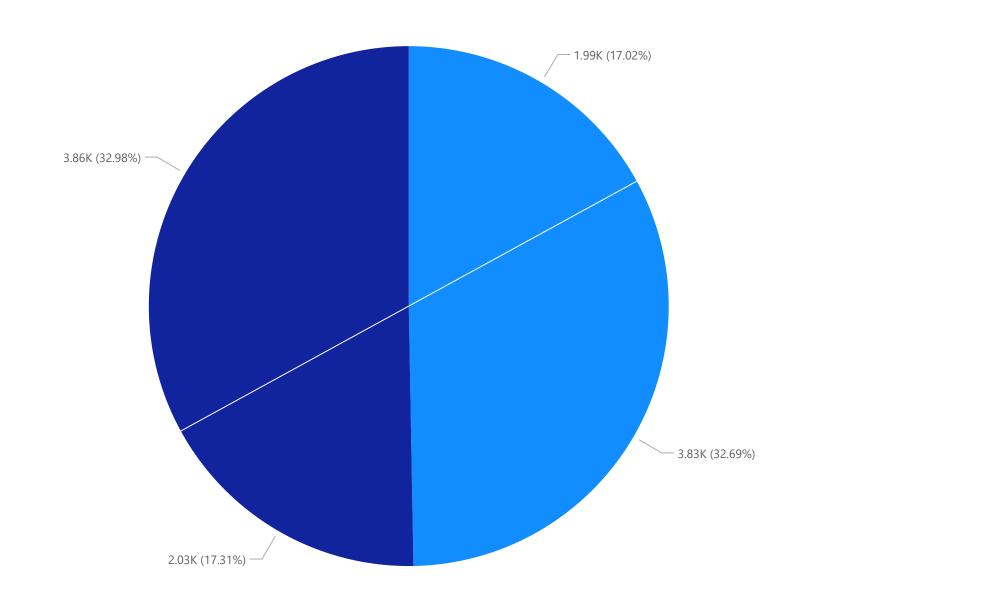
<u>Customers With Online Security And</u> <u>Online Backup Service</u>

Customer_ID	Count of Online_Backup	Count of Online_Security
0002-ORFBO	1	1
0003-MKNFE	1	1
0013-MHZWF	1	1
0013-SMEOE	1	1
0014-BMAQU	1	1
0015-UOCOJ	1	1
0016-QLJIS	1	1
0017-IUDMW	1	1
0018-NYROU	1	1
0019-EFAEP	1	1
0020-INWCK	1	1
0021-IKXGC	1	1
0027-KWYKW	1	1
0036-IHMOT	1	1
0048-LUMLS	1	1
0052-DCKON	1	1
0058-EVZWM	1	1
0060-FUALY	1	1
0064-YIJGF	1	1
0068-FIGTF	1	1
0074-HDKDG	1	1
Total	3249	3249

Most combination of service among churned customer

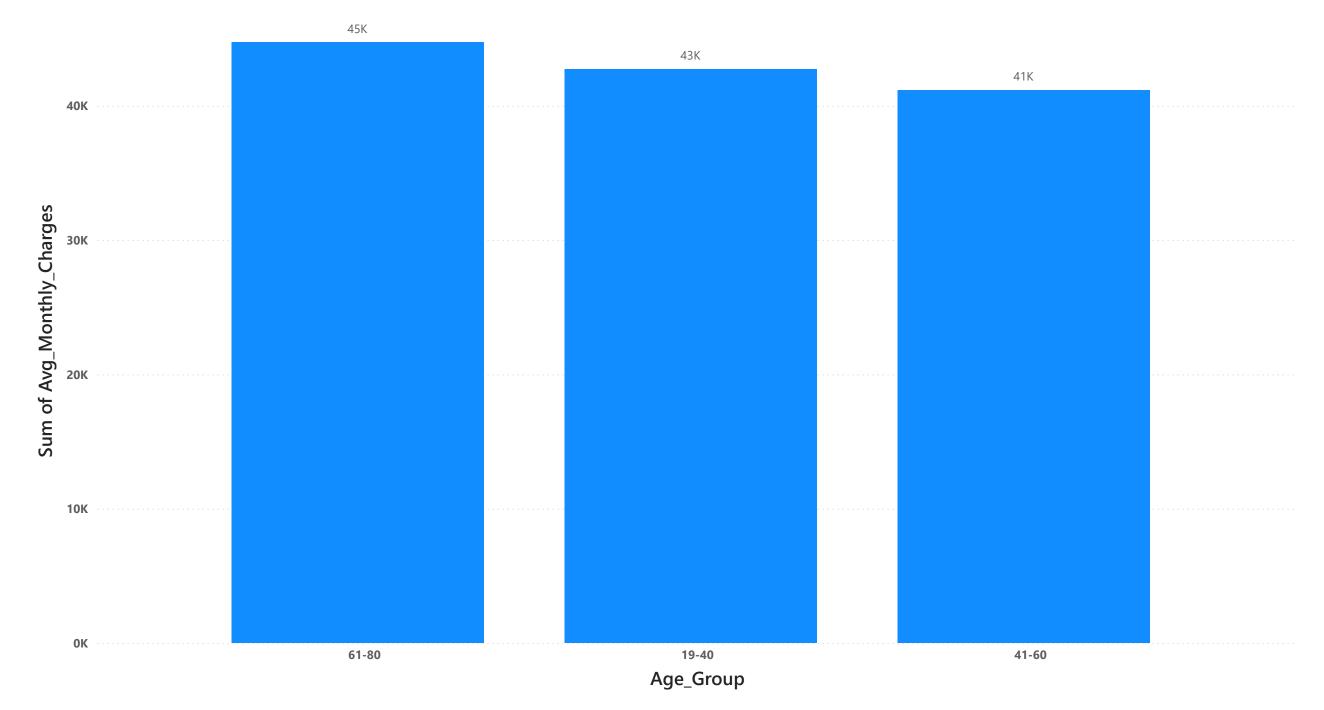
Customer_ID	Device_Protection_Plan	Internet_Service	Multiple_Lines	Online_Backup	Online_Security	Phone_Service	Premium_Tech_Support	Streaming_Movies	Streaming_Music	Streaming_Tv Sum of co
0004-TLHLJ	No	Yes	No	No	No	Yes	No	No	No	No
0011-IGKFF	No	Yes	No	No	No	Yes	No	No	No	No
0013-EXCHZ	No	Yes	No	No	No	Yes	No	No	No	No
0022-TCJCI	No	Yes	No	No	No	Yes	No	No	No	No
0023-XUOPT	No	Yes	No	No	No	Yes	No	No	No	No
0067-DKWBL	No	Yes	No	No	No	Yes	No	No	No	No
0093-XWZFY	No	Yes	No	No	No	Yes	No	No	No	No
0094-OIFMO	No	Yes	No	No	No	Yes	No	No	No	No
0107-YHINA	No	Yes	No	No	No	Yes	No	No	No	No
0112-QWPNC	No	Yes	No	No	No	Yes	No	No	No	No
0115-TFERT	No	Yes	No	No	No	Yes	No	No	No	No
0122-OAHPZ	No	Yes	No	No	No	Yes	No	No	No	No
0125-LZQXK	No	Yes	No	No	No	Yes	No	No	No	No
0133-BMFZO	No	Yes	No	No	No	Yes	No	No	No	No
0135-NMXAP	No	Yes	No	No	No	Yes	No	No	No	No
0137-OCGAB	No	Yes	No	No	No	Yes	No	No	No	No
0148-DCDOS	No	Yes	No	No	No	Yes	No	No	No	No
0151-ONTOV	No	Yes	No	No	No	Yes	No	No	No	No
0156-FVPTA	No	Yes	No	No	No	Yes	No	No	No	No
0193-ESZXP	No	Yes	No	No	No	Yes	No	No	No	No
0195-IESCP	No	Yes	No	No	No	Yes	No	No	No	No
0196-VULGZ	No	Yes	No	No	No	Yes	No	No	No	No
0201-OAMXR	No	Yes	No	No	No	Yes	No	No	No	No
0207-MDKNV	No	Yes	No	No	No	Yes	No	No	No	No
Total	Mo	Voc	No	Ma	Ma	Voc	No	No	Ma	No

<u>Average of Total Charges by Gender and Married</u>

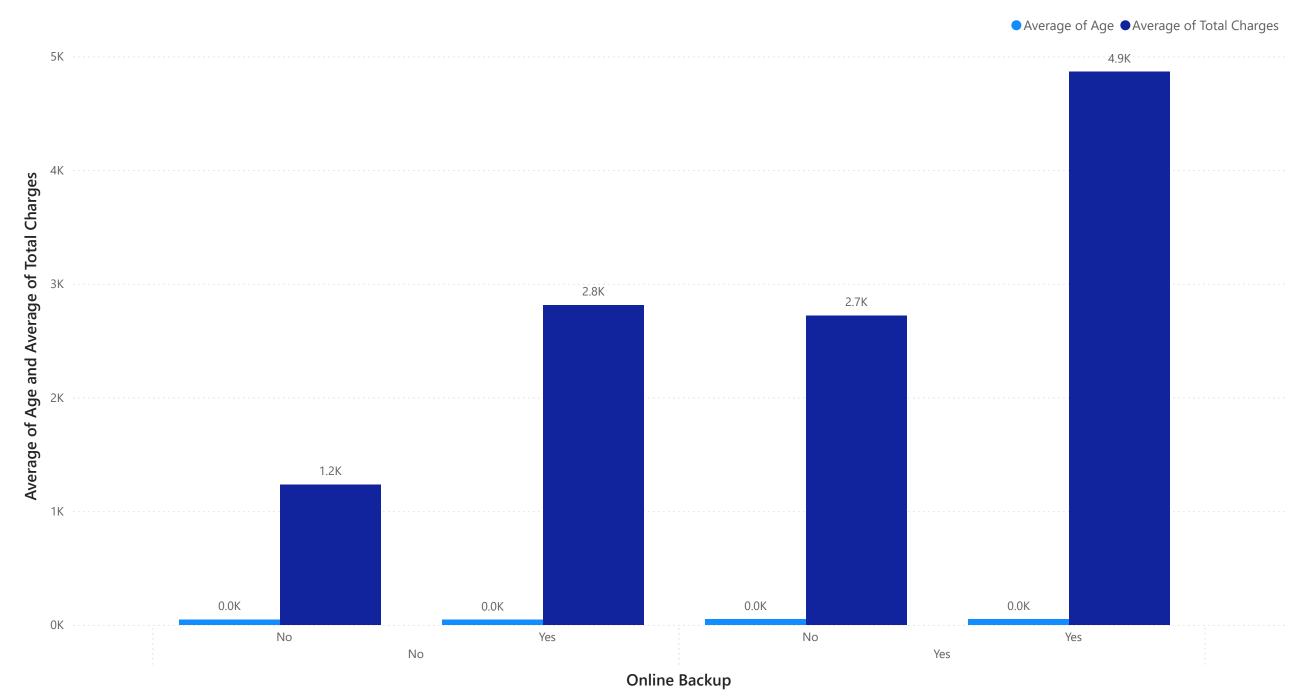


GenderMaleFemale

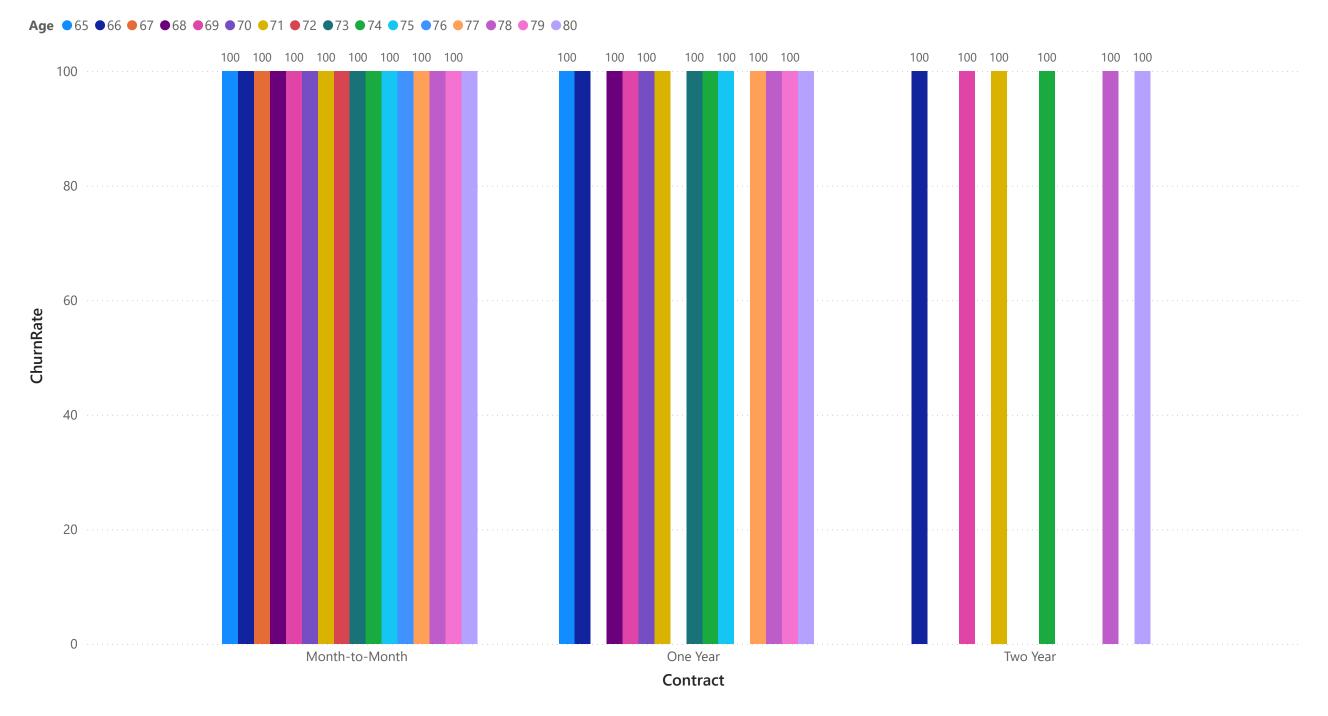
<u>Average Monthly charges for Different Age Groups</u>



<u>Average age & Avg total charges with Multiple lines & Online Backup</u>



Contract type with highest churn rate among senior citizen 65 And Above



<u>Avg age & Avg Total charge for customers with different</u> <u>combination of Streaming service</u>

Average of Age	Streaming TV	Streaming Movies	Streaming Music	Average of Total Charges
43.98	Yes	Yes	Yes	4,472.28
73.28	Yes	Yes	No	4,339.54
73.19	No	Yes	No	2,720.28
44.60	No	Yes	Yes	2,692.99
48.26	Yes	No	No	2,646.48
23.26	Yes	No	Yes	1,953.70
48.52	No	No	No	1,553.42
24.16	No	No	Yes	1,021.23

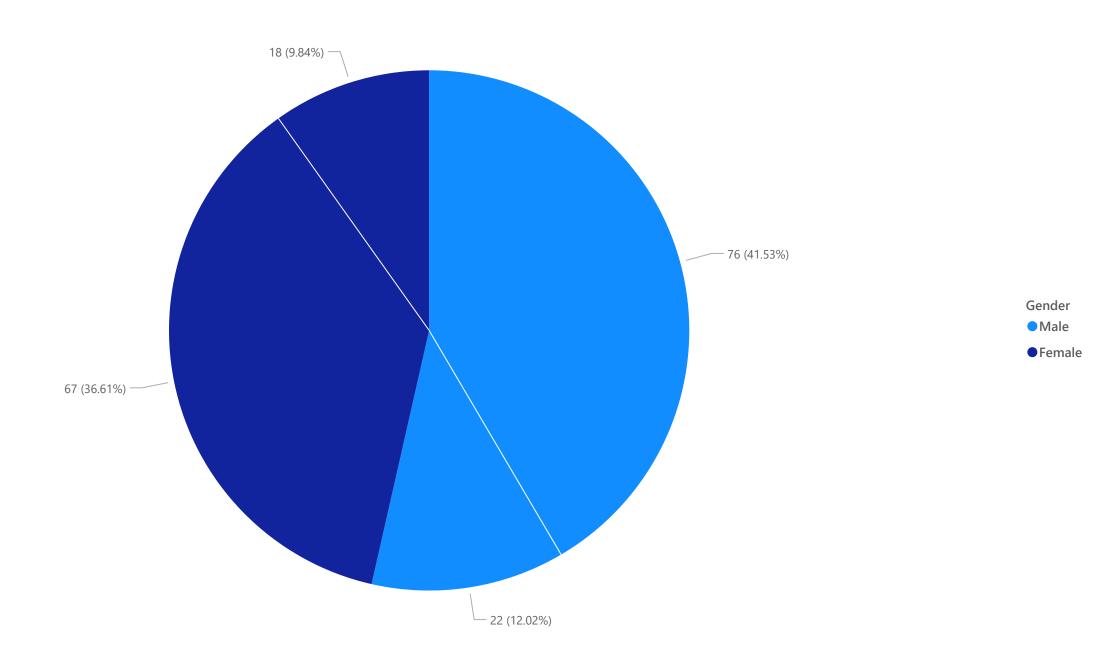
Avg monthly charge for Streaming TV & Multiple Line

Total		81.11
No	No	64.47
Yes	No	77.69
No	Yes	86.01
Yes	Yes	97.42
Multiple_Lines	Streaming_TV	Average of Monthly_Charge

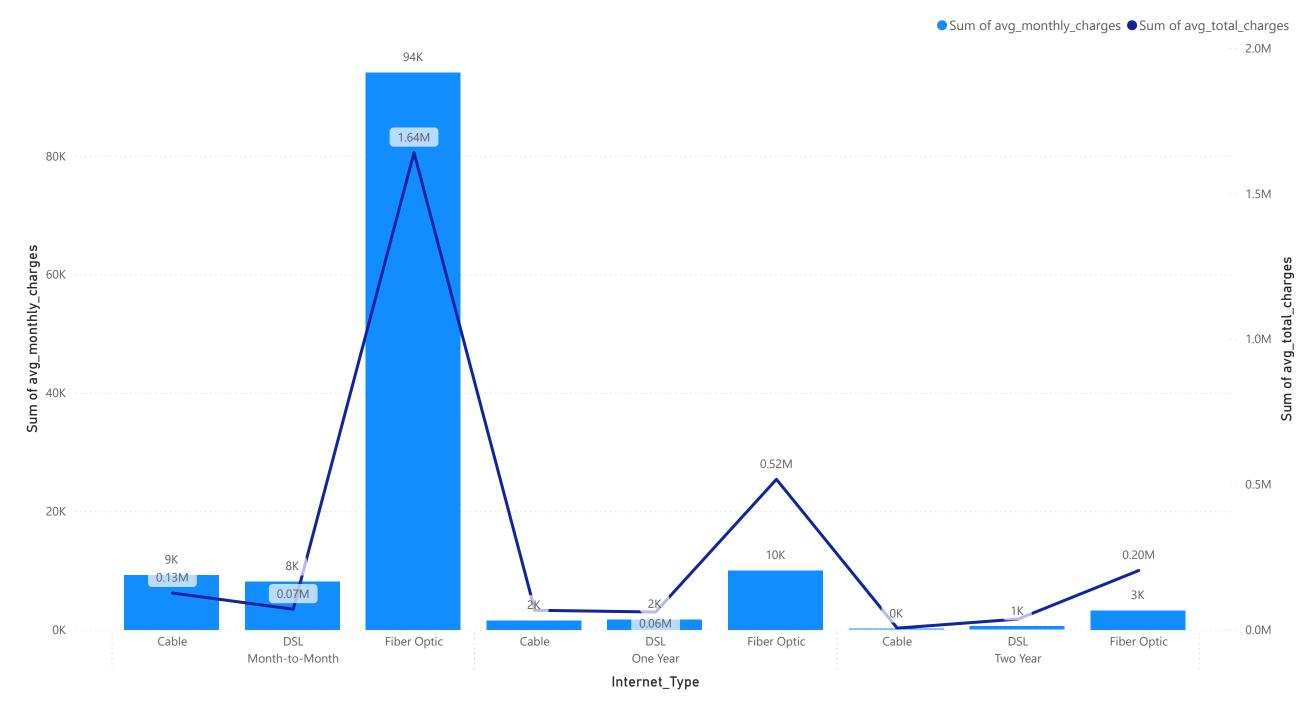
<u>Churned Customer Using Most Online Service</u>

Customer_ID	Multiple_Lines	Online_Backup	Online_Security	Streaming_Movies	Streaming_Music	Streaming_Tv	Internet_Service Sum of Best_combo_co	ount Sum of To	otal_Revenue
0201-OAMXR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	8,842.30
0363-QJVFX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	4,318.98
0691-IFBQW	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	4,983.82
1444-VVSGW	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,180.75
1555-DJEQW	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	8,849.96
2408-TZMJL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	7,787.94
2659-VXMWZ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,441.18
2889-FPWRM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	11,195.44
3325-FUYCG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	3,116.76
3331-HQDTW	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	3,858.91
4361-BKAXE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	5,411.41
4800-CZMPC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	5,342.83
5013-SBUIH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	6,936.15
5020-ZSTTY	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	5,002.42
5089-IFSDP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	7,767.97
5236-PERKL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,250.02
5271-YNWVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,465.56
5287-QWLKY	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	10,718.96
5469-CTCWN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,411.65
7279-BUYWN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	5,835.45
8199-ZLLSA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	9,322.37
8849-GYOKR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	6,240.12
9053-JZFKV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	10,022.26
9101-BWFSS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	7,082.20
9158-VCTQB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1	4,800.36
Total								26	35,22,974.90

Gender Distribution among customers who have churned on yearly Contacts



Churned customer Avg monthly charges and Total charges grouped by contract and Internet service

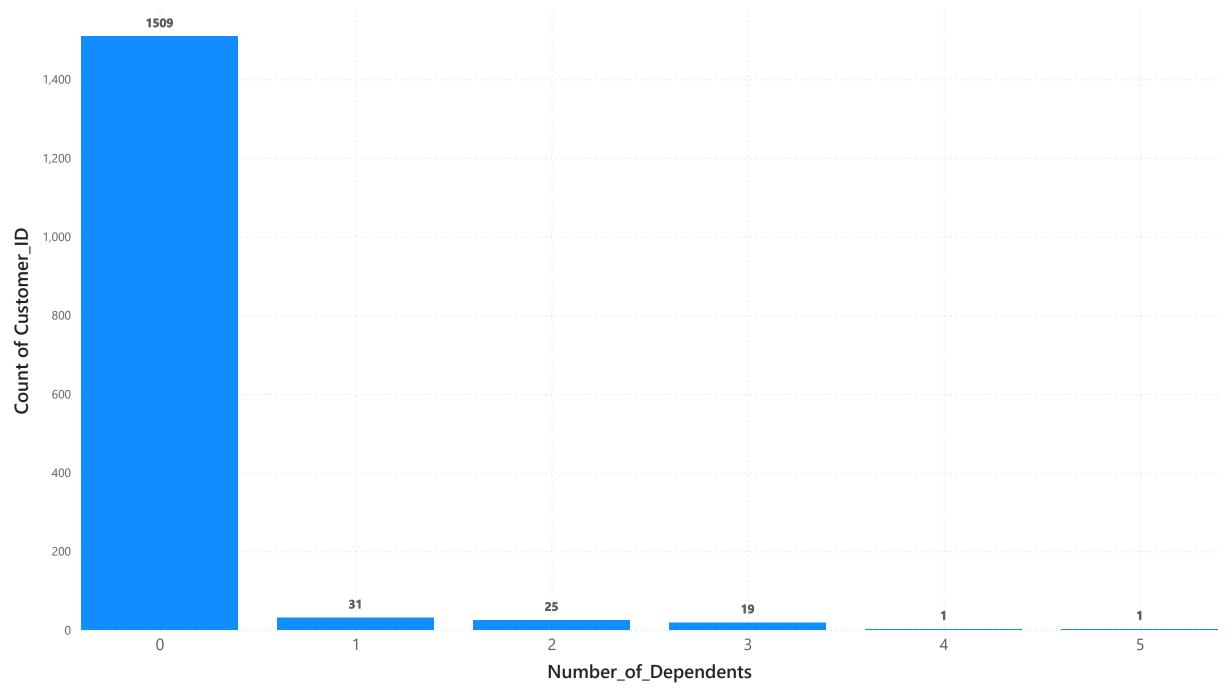


<u>Churned and Not</u> <u>using Online Service</u>

avg_total_charges Customer_ID

Null Null

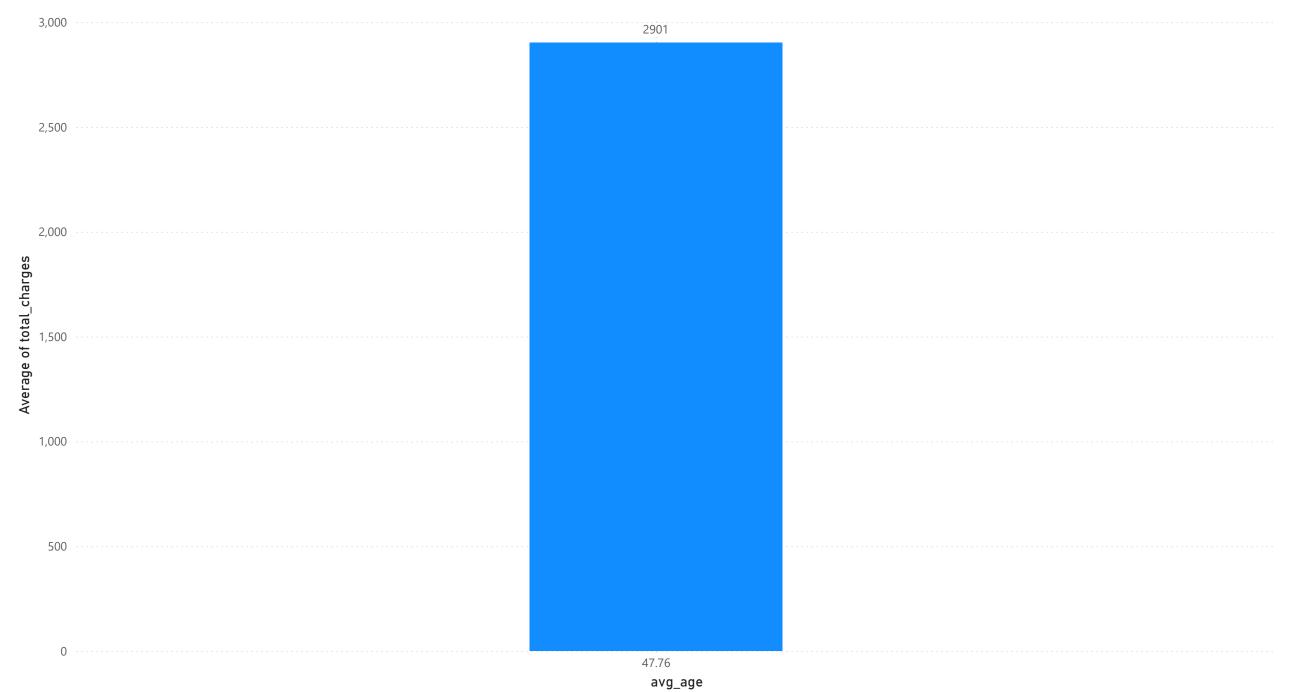
<u>Churned customer grouped by num of dependents.</u>



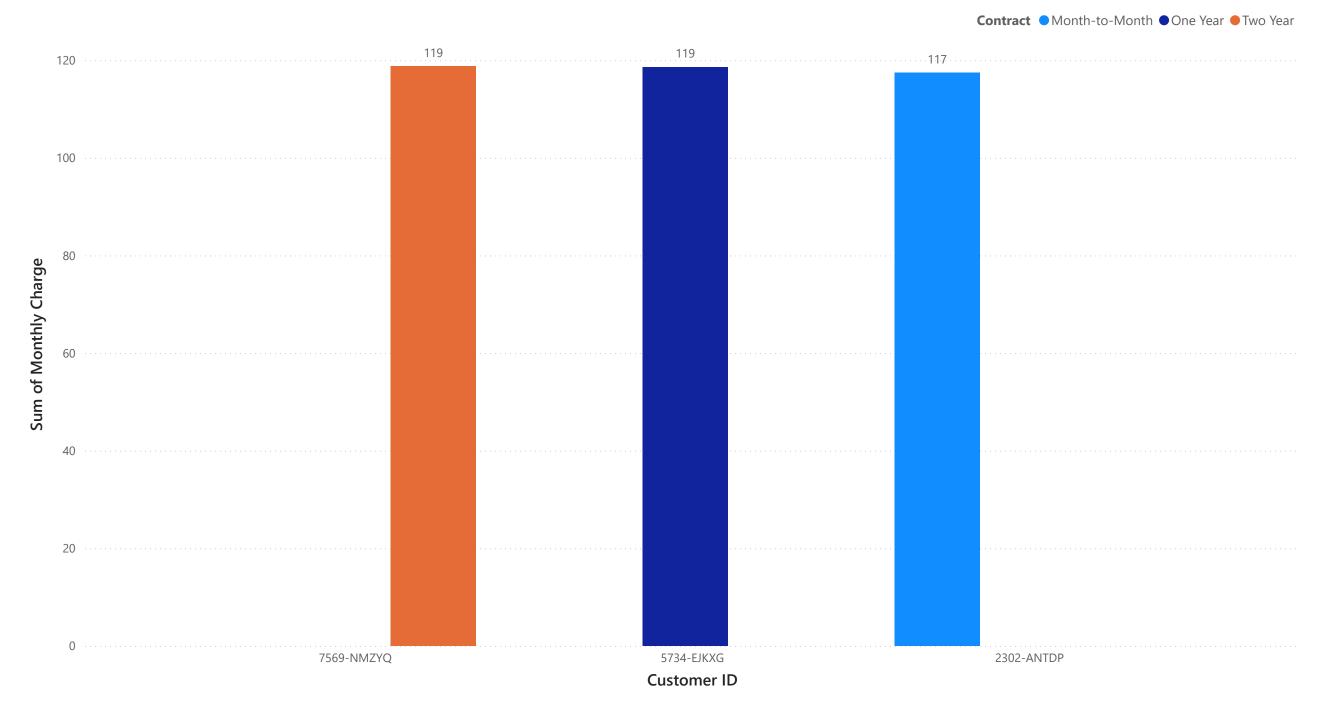
Churned Customers duration in months

Customer_ID	Contract
0004-TLHLJ	Month-to-Month
0011-IGKFF	Month-to-Month
0013-EXCHZ	Month-to-Month
0023-XUOPT	Month-to-Month
0067-DKWBL	Month-to-Month
0093-XWZFY	Month-to-Month
0094-OIFMO	Month-to-Month
0107-YHINA	Month-to-Month
0115-TFERT	Month-to-Month
0122-OAHPZ	Month-to-Month
0125-LZQXK	Month-to-Month
0133-BMFZO	Month-to-Month
0135-NMXAP	Month-to-Month
0137-OCGAB	Month-to-Month
0148-DCDOS	Month-to-Month
0151-ONTOV	Month-to-Month
0156-FVPTA	Month-to-Month
0195-IESCP	Month-to-Month
0196-VULGZ	Month-to-Month
0207-MDKNV	Month-to-Month
0219-YTZUE	Month-to-Month
0220-EBGCE	Month-to-Month
0224-HJAPT	Month-to-Month
0231-LXVAP	Month-to-Month

Churned Customer Avg age and Total charges Grouped by Internet Service & Phone Service



<u>Highest Monthly Charges in Each Contract Types</u>

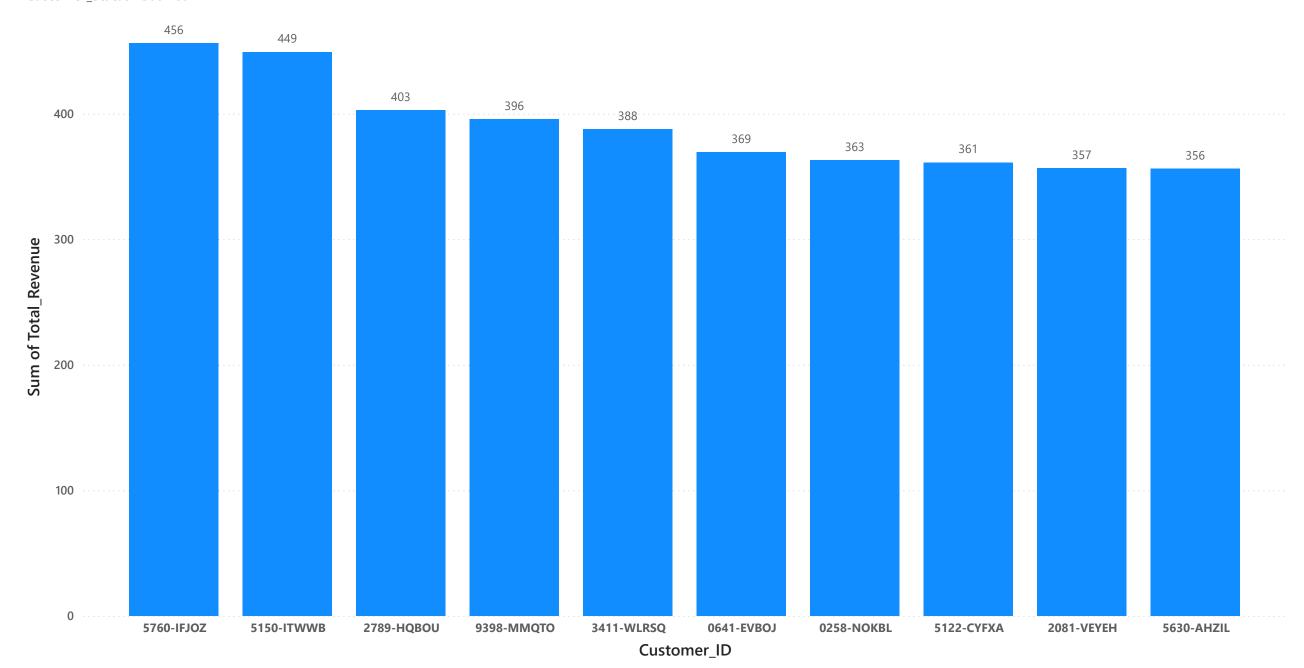


<u>Customers who churned and their</u> <u>cummalative total charges over time</u>

Customer_ID	Sum of Monthly_Charge	Sum of Total_Charges
0004-TLHLJ	73.90	280.85
0011-IGKFF	98.00	1,237.85
0013-EXCHZ	83.90	267.40
0022-TCJCI	62.70	2,791.50
0023-XUOPT	94.10	1,215.60
0067-DKWBL	49.25	91.10
0093-XWZFY	104.50	4,036.85
0094-OIFMO	95.00	1,120.30
0107-YHINA	99.75	99.75
0112-QWPNC	84.35	4,059.35
0115-TFERT	111.20	2,317.10
0122-OAHPZ	73.85	511.25
0125-LZQXK	101.35	1,553.95
0133-BMFZO	86.25	181.65
0135-NMXAP	89.75	1,052.40
0137-OCGAB	80.20	80.20
0148-DCDOS	94.70	2,362.10
0151-ONTOV	70.90	70.90
0156-FVPTA	54.20	1,152.70
0193-ESZXP	105.50	6,205.50
0195-IESCP	85.25	855.30
0196-VULGZ	84.35	474.90
0201-OAMXR	115.55	8,127.60
0207-MDKNV	105.10	1,582.75
Total	1,28,638.35	27,26,469.00

<u>Identify High-value customers at risk of churning</u>





4835

Count of Total customer

1586

Count of Churned Customer

32.80

ChurnRate

3.52M

18.16M

Churned Customer Total Revenue Non-churn customer Total Reven...

128.64K

Churned Monthly_Charge

388.30K

Non - Churned Customer Monthl...

19-40

First Age_Group

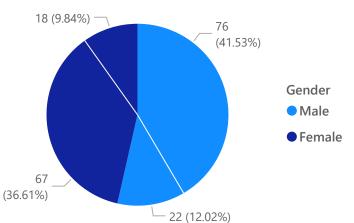
61 - 80

Last Age_Group

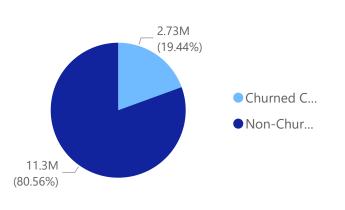
<u>Identify High-value customers at risk of churning</u>



Gender Distribution among customers who have churned on yearly Contacts



Total Charges Distribution for Churned and Non-Churned Customers



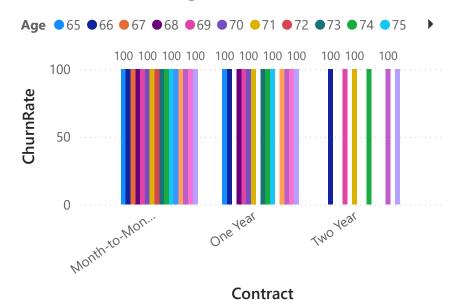
Customers With Online Security And Online Backup Service

Customer_ID	Count of Online_Backup ▼	Count of Online_Security
0002-ORFBO	1	1
0003-MKNFE	1	1
0013-MHZWF	1	1
0013-SMEOE	1	1
0014-BMAQU	1	1
0015-UOCOJ	1	1
0016-QLJIS	1	1
0017-IUDMW	1	1
0018-NYROU	1	1
Total	3249	3249

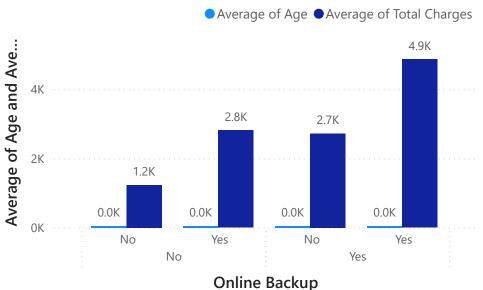
Most combination of service among churned customer

Customer_ID	Device_Protection_Plan	Internet_Service	Multiple_Lines	Online_Backup	Online_Security	Phone_Service	Premium_Tech_
	No	Yes	No	No	No	Yes	No
0004-TLHLJ	No	Yes	No	No	No	Yes	No
0011-IGKFF	No	Yes	No	No	No	Yes	No
0013-EXCHZ	No	Yes	No	No	No	Yes	No
0022-TCJCI	No	Yes	No	No	No	Yes	No
0023-XUOPT	No	Yes	No	No	No	Yes	No
0067-DKWBL	No	Yes	No	No	No	Yes	No
0093-XWZFY	No	Yes	No	No	No	Yes	No
0094-OIFMO	No	Yes	No	No	No	Yes	No
Total	N.I.	V	N.I.	K.I	K.I	V	N.I.

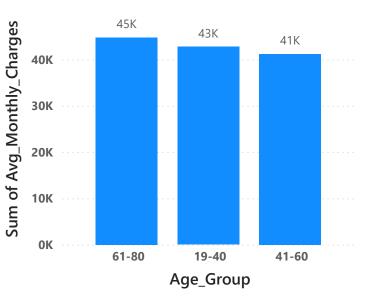
Contract type with highest churn rate among senior citizen



<u>Average age & Avg total charges with Multiple</u> <u>lines & Online Backup</u>



<u>Average Monthly charges for</u> <u>Different Age Groups</u>





<u>Churned Customer</u> <u>duration in months</u>

Customer_ID	Contract
0004-TLHLJ	Month-to-Month
0011-IGKFF	Month-to-Month
0013-EXCHZ	Month-to-Month
0023-XUOPT	Month-to-Month
0067-DKWBL	Month-to-Month
0093-XWZFY	Month-to-Month
0094-OIFMO	Month-to-Month
0107-YHINA	Month-to-Month
0115-TFERT	Month-to-Month
0122-OAHPZ	Month-to-Month
0125-LZOXK	Month-to-Month

Total

<u>Avg monthly charge for Streaming</u> <u>TV & Multiple Line</u>

Multiple_Lines	Streaming_TV	Average of Monthly_Charge
Yes	Yes	97.42
No	Yes	86.01
Yes	No	77.69
No	No	64.47
Total		81.11

Churned Customer Using Most Online Service

Customer_ID	Multiple_Lines	Online_Backup	Online_Security	Streaming_Movies	Streaming_Music
0201-OAMXR	Yes	Yes	Yes	Yes	Yes
0363-QJVFX	Yes	Yes	Yes	Yes	Yes
0691-IFBQW	Yes	Yes	Yes	Yes	Yes
1444-VVSGW	Yes	Yes	Yes	Yes	Yes
1555-DJEQW	Yes	Yes	Yes	Yes	Yes
2408-TZMJL	Yes	Yes	Yes	Yes	Yes
2659-VXMWZ	Yes	Yes	Yes	Yes	Yes
2889-FPWRM	Yes	Yes	Yes	Yes	Yes
3325-FUYCG	Yes	Yes	Yes	Yes	Yes
3331-HQDTW	Yes	Yes	Yes	Yes	Yes

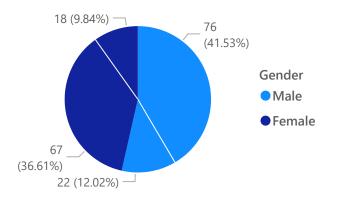
<u>Avg age & Avg Total charge for customers with different</u> <u>combination of Streaming service</u>

Average of Age	Streaming TV	Streaming Movies	Streaming Music	Average of Total Charges
48.52	No	No	No	1,553.42
48.26	Yes	No	No	2,646.48
24.16	No	No	Yes	1,021.23
23.26	Yes	No	Yes	1,953.70
73.19	No	Yes	No	2,720.28
73.28	Yes	Yes	No	4,339.54
44.60	No	Yes	Yes	2,692.99
43.98	Yes	Yes	Yes	4,472.28

<u>Churned and Not using Online</u> <u>Service</u>

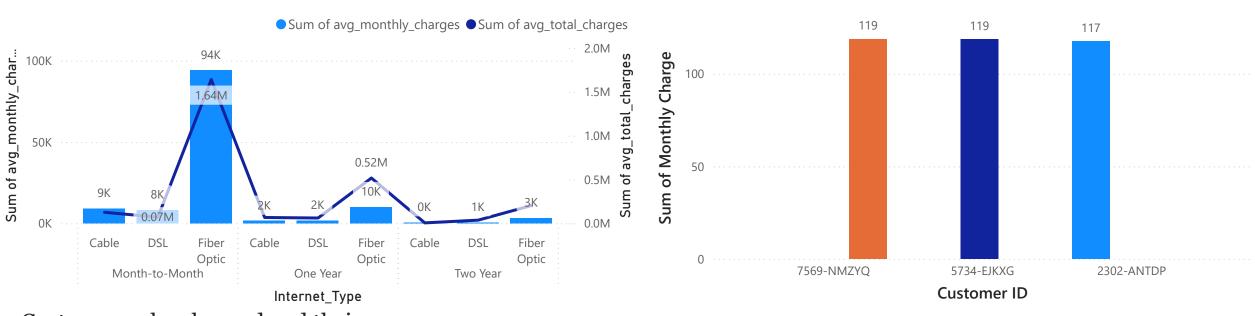
avg_total_charges	Customer_ID
Null	Null

Gender Distribution among customers who have churned on yearly Contacts



<u>Churned customer Avg monthly charges and Total charges</u> <u>grouped by contract and Internet service</u>

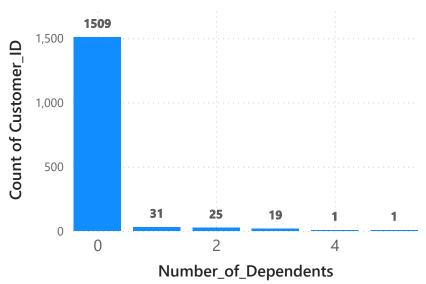
<u>Highest Monthly Charges in Each Contract Types</u>



<u>Customers who churned and their</u> <u>cummalative total charges over time</u>

Customer_ID	Sum of Monthly_Charge	Sum of Total_Charg
0004-TLHLJ	73.90	280.
0011-IGKFF	98.00	1,237.
0013-EXCHZ	83.90	267.
0022-TCJCI	62.70	2,791.
0023-XUOPT	94.10	1,215.
0067-DKWBL	49.25	91.
0093-XWZFY	104.50	4,036.
0094-OIFMO	95.00	1,120.
0107-YHINA	99.75	99.
Total	1,28,638.35	27,26,469.0

<u>Churned customer grouped by num of dependents.</u>



<u>Churned Customer Avg age and Total charges</u> <u>Grouped by Internet Service & Phone Service</u>

Contract ● Month-to-Month ● One Year ● Two Year

