

CallMeMaybe

Ineffective Operators

CREATED ON: 8/13/2021



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CallMeMaybe - virtual telephony service

- CallMeMaybe clients are organizations that need to distribute large numbers of incoming calls among various operators, or make outgoing calls through their operators
- in CallMeMaybe are developing a new function that will give supervisors information on the least effective operators
- an operator is considered **ineffective** if they have **a large number of missed incoming calls** (internal and external) and a **long waiting time for incoming calls**
- if an operator is supposed to make **outgoing calls**, a **small number** of them is also a sign of ineffectiveness.

General conclusion

There are 19 operators with more than 10% of missing calls (6 are incoming calls only operators and 13 in&out calls operators):

- top 3 ineffective in&out operators: 957922, 897872, 937432
- top 3 ineffective incoming calls only operators: 934098, 924936, 930242

Looking at missed incoming calls:

- in&out operators have the highest average waiting time pro call
- top 3 ineffective in&out operators: 902532, 911310, 937732

General conclusion

Looking at received incoming calls:

75% of incoming only calls operators have 25 seconds for an average waiting time pro received call.

- Top 3 ineffective ones: 896538, 899900, 901498.

75% of in&out operators have 20 seconds for an average waiting time pro received call.

- Top 3 ineffective ones: 882688, 882690, 884412.

In&out operators have lower waiting time than incoming only calls operators.

General conclusion

Looking at outgoing only calls operators:

- Average number of calls per day: 23.
- Out of 338 operators, 50% have average number of calls per day under 3.
- Operators in cluster 0 and 2 I consider to be the most ineffective:

914272, 917890, 919418, 929542, 932246, 937716, 937770, 937778, 947596, 954284, 958458, 969262, 969284, 970250, 970258, 914626, 924572, 928282, 928284, 955068, 955086, 955094, 960666, 960670, 960674, 962904, 963716.

Type of operators

- 1902 operators:

- 210 operators with **incoming only** calls
- 338 operators with **outgoing only** calls
- 544 operators with **incoming and outgoing** calls

Incoming calls

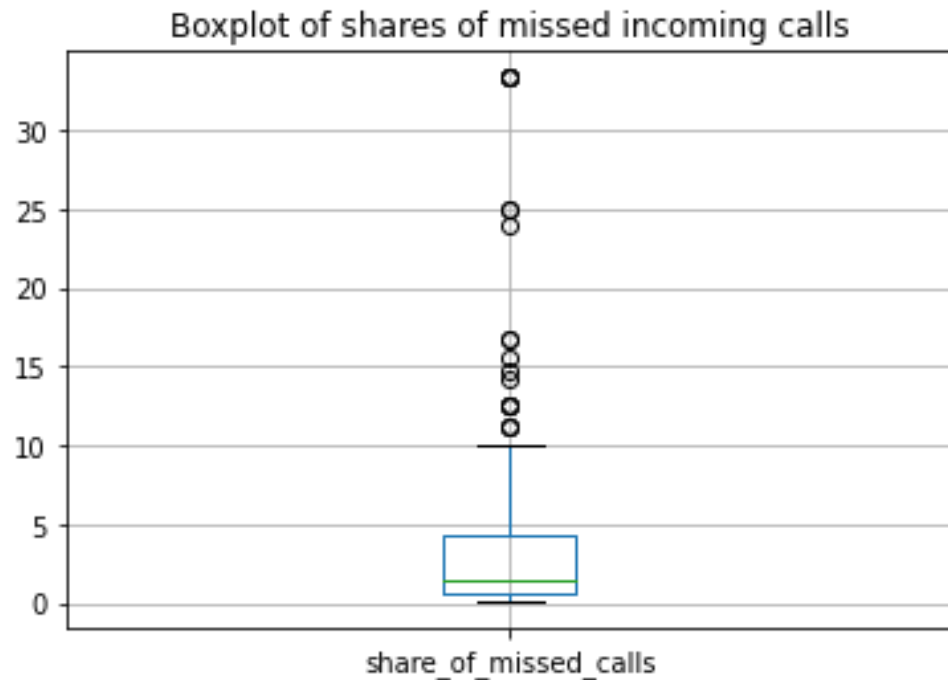
- there are 754 operators out of 1092 that made incoming calls

Incoming calls: missed calls

*169 operators with
missed calls: 22% of
incoming call operators*

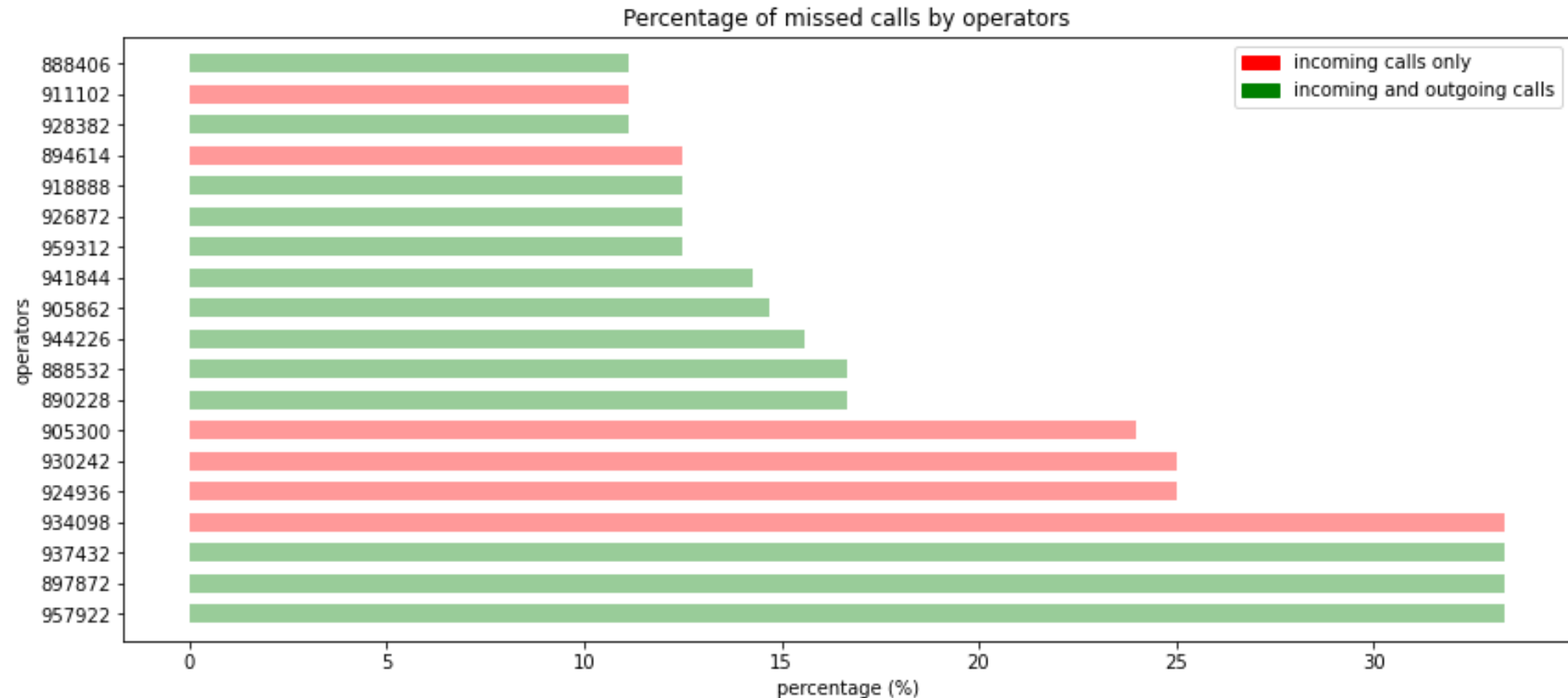


Incoming calls: missed calls



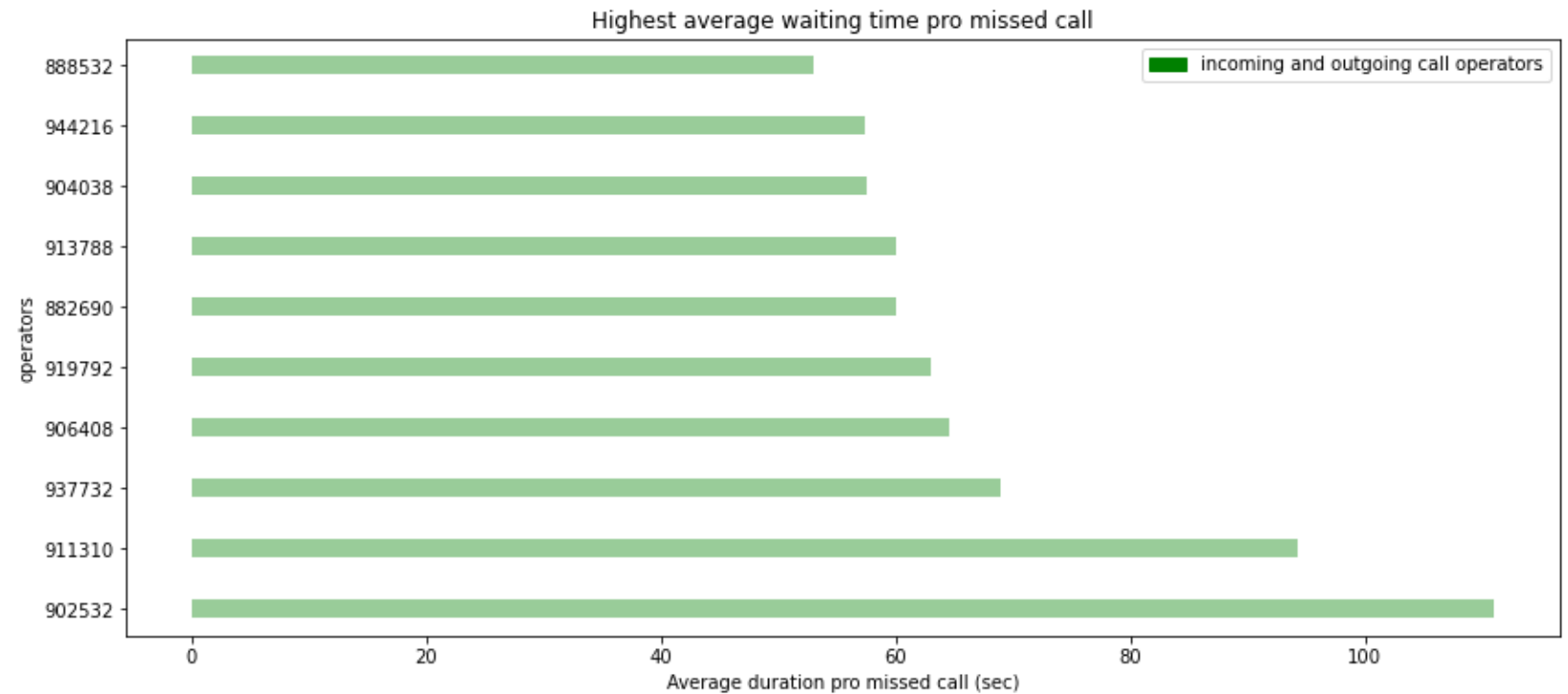
- most of the operators had up to 4% of missed calls
- there are 19 operators that have more than 10% of missing calls

Incoming calls: missed calls



Incoming calls: missed calls *Average waiting time*

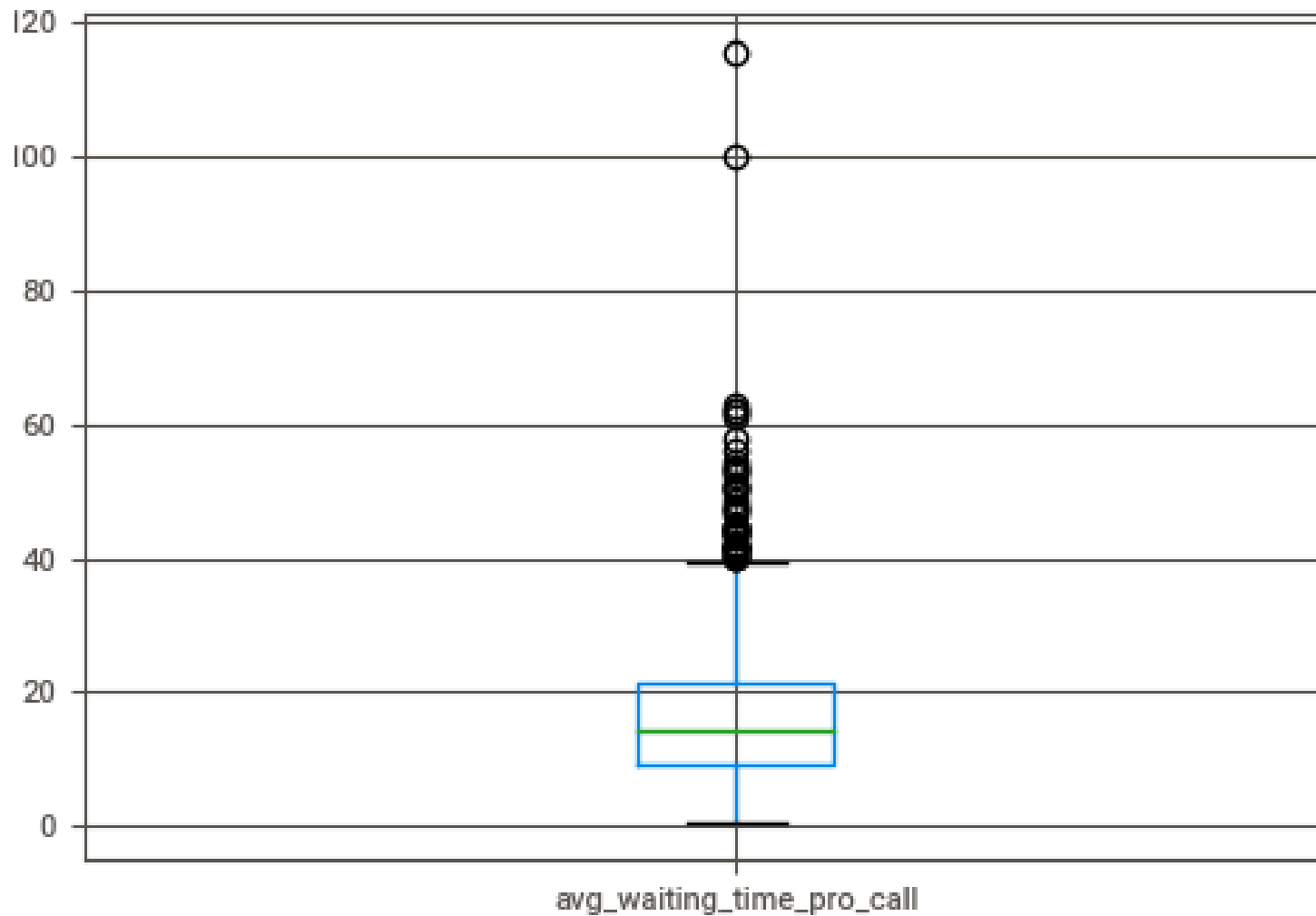
- operators
with high
average
waiting time
(more than
51.5 sec)



Incoming
calls: received
calls



Boxplot of average waiting time by received calls



Incoming calls:
received calls
Average waiting time

- every average waiting time
higher than 39 seconds is
unusually high waiting time

Incoming calls: received calls

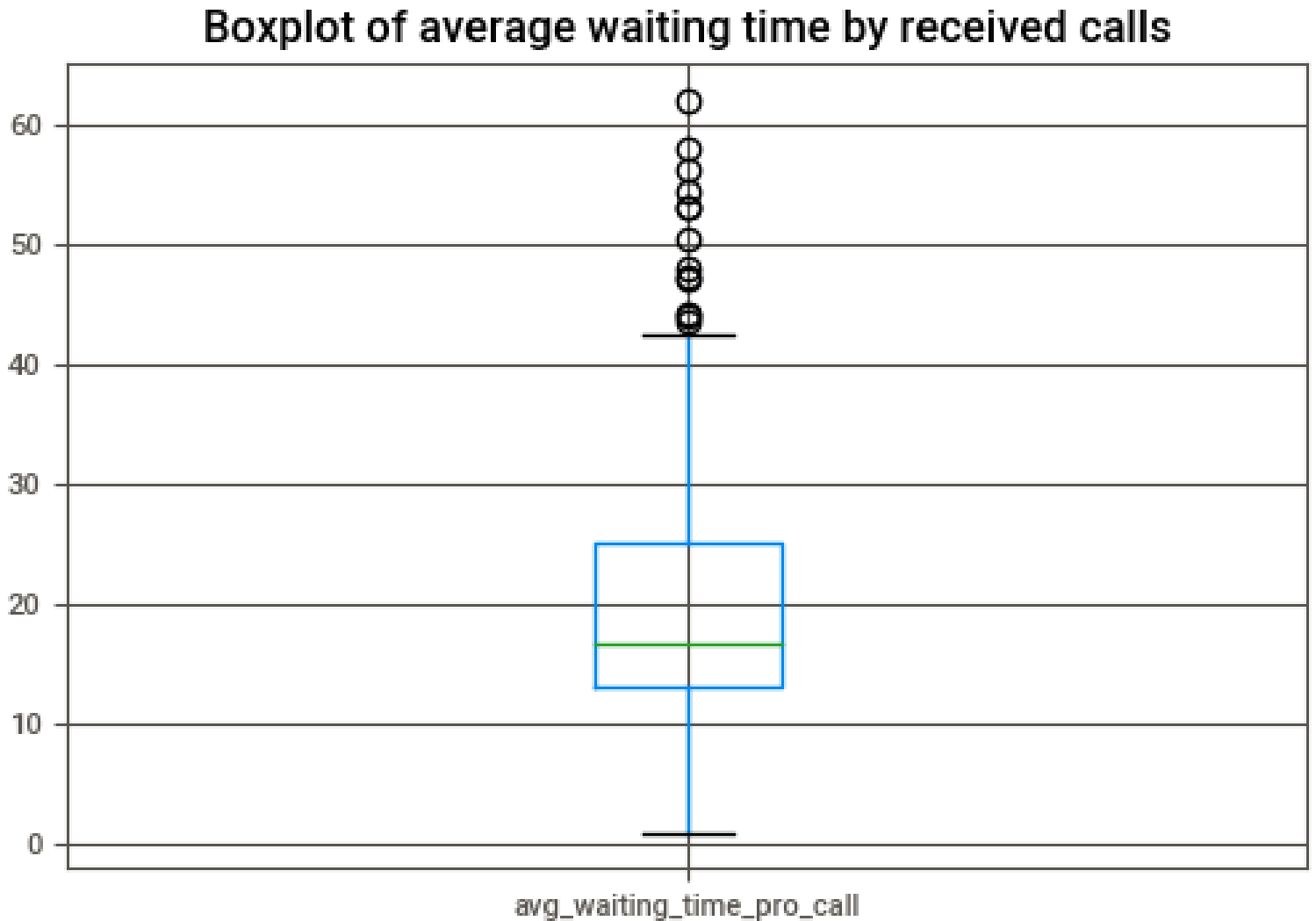
INCOMING CALL
ONLY OPERATORS



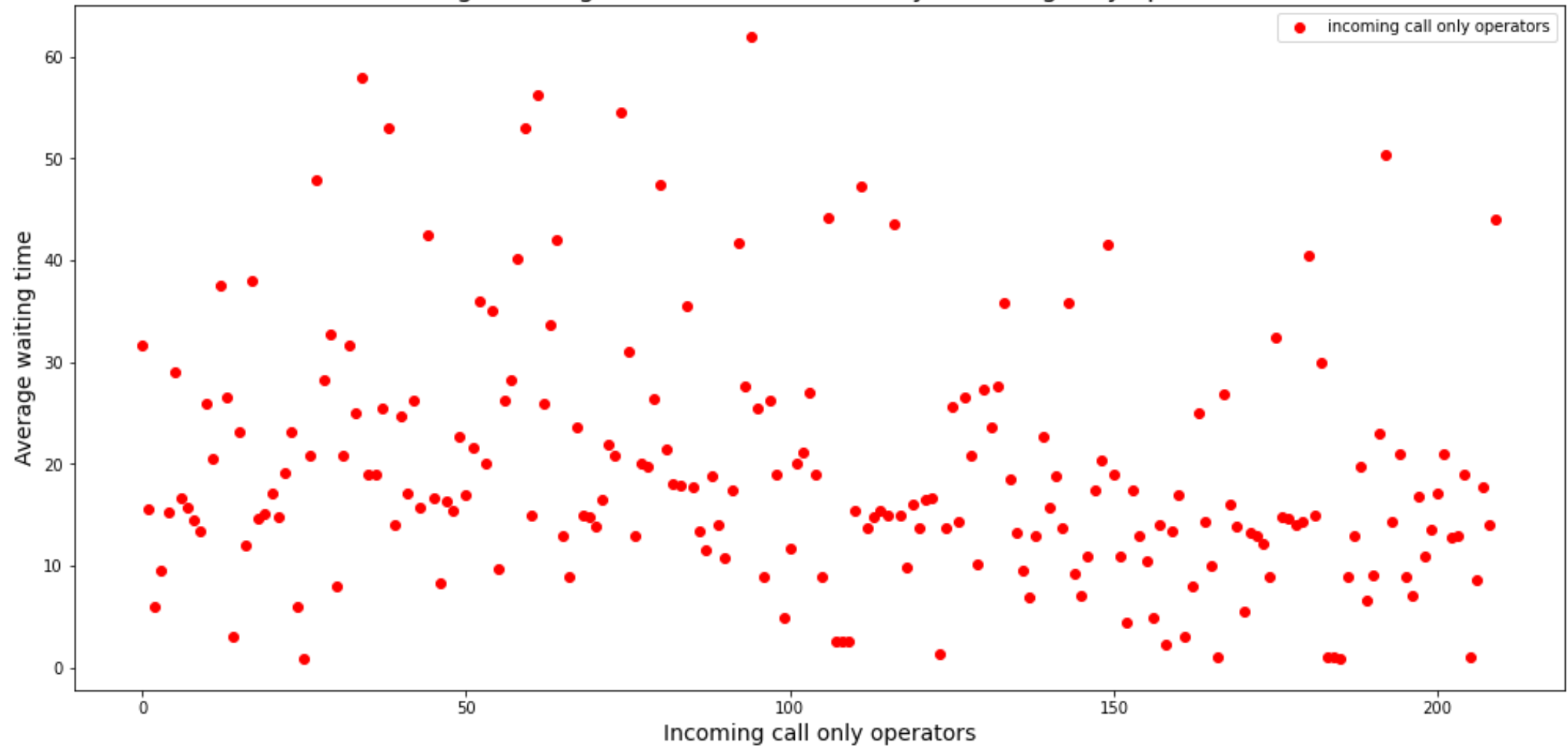
Incoming calls: received calls

INCOMING CALL
ONLY OPERATORS

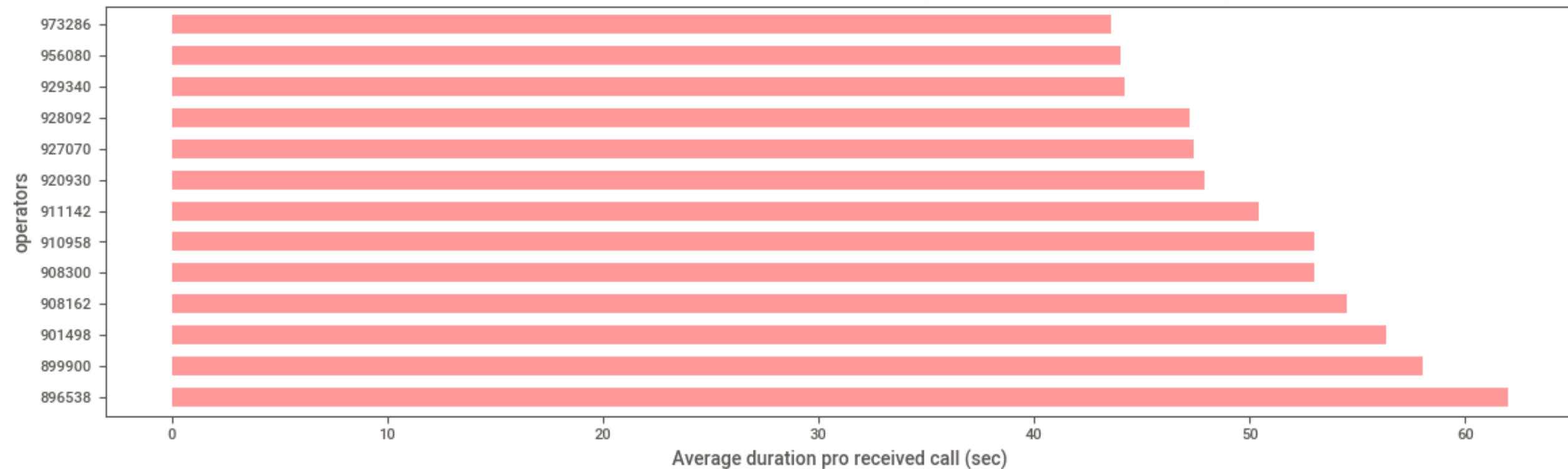
- average waiting time pro received call higher than 43 seconds is considered to be very long waiting time



Average waiting time in received calls by incoming only operators



Highest average waiting time pro received call (incoming calls only operators)



Type of operators

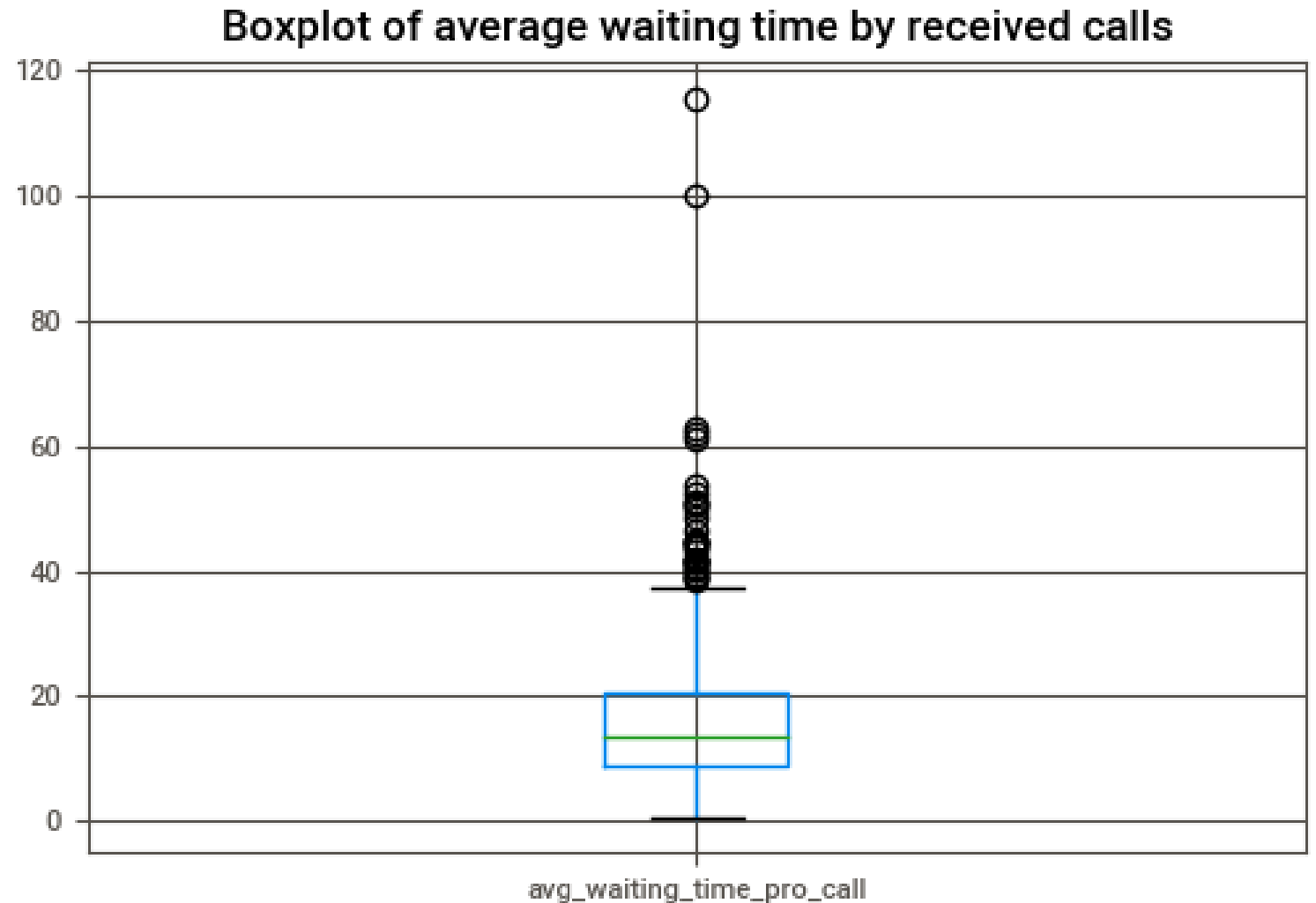
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- 544 operators with **incoming and outgoing** calls

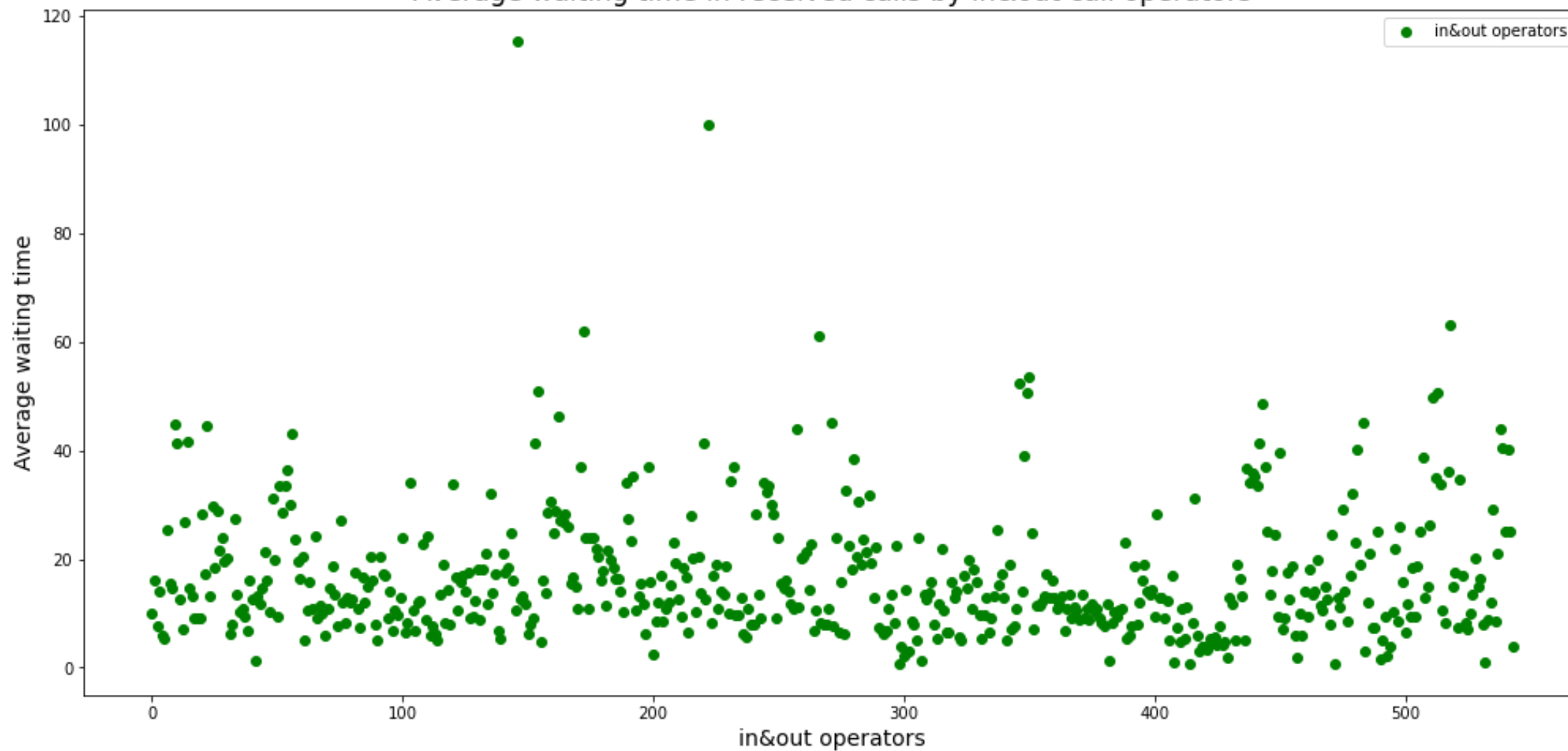
Incoming calls: received calls

IN&OUT CALL OPERATORS

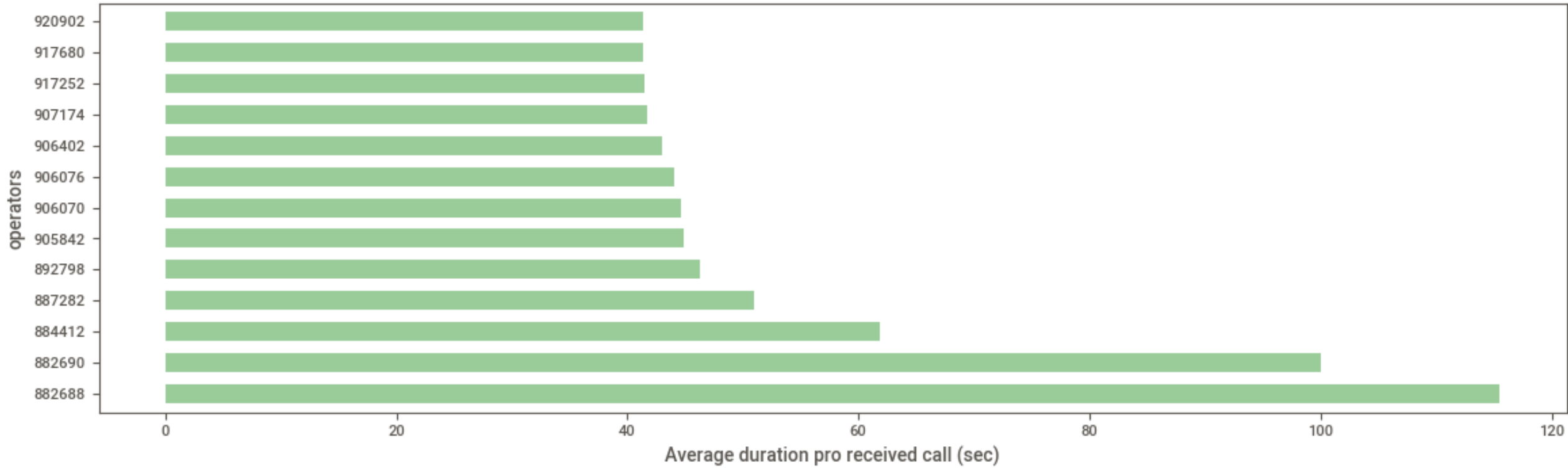
- average waiting time pro received call above 37 seconds by in&out call operators is considered to be very long waiting time



Average waiting time in received calls by in&out call operators



Highest average waiting time pro received call (in&out call operators)



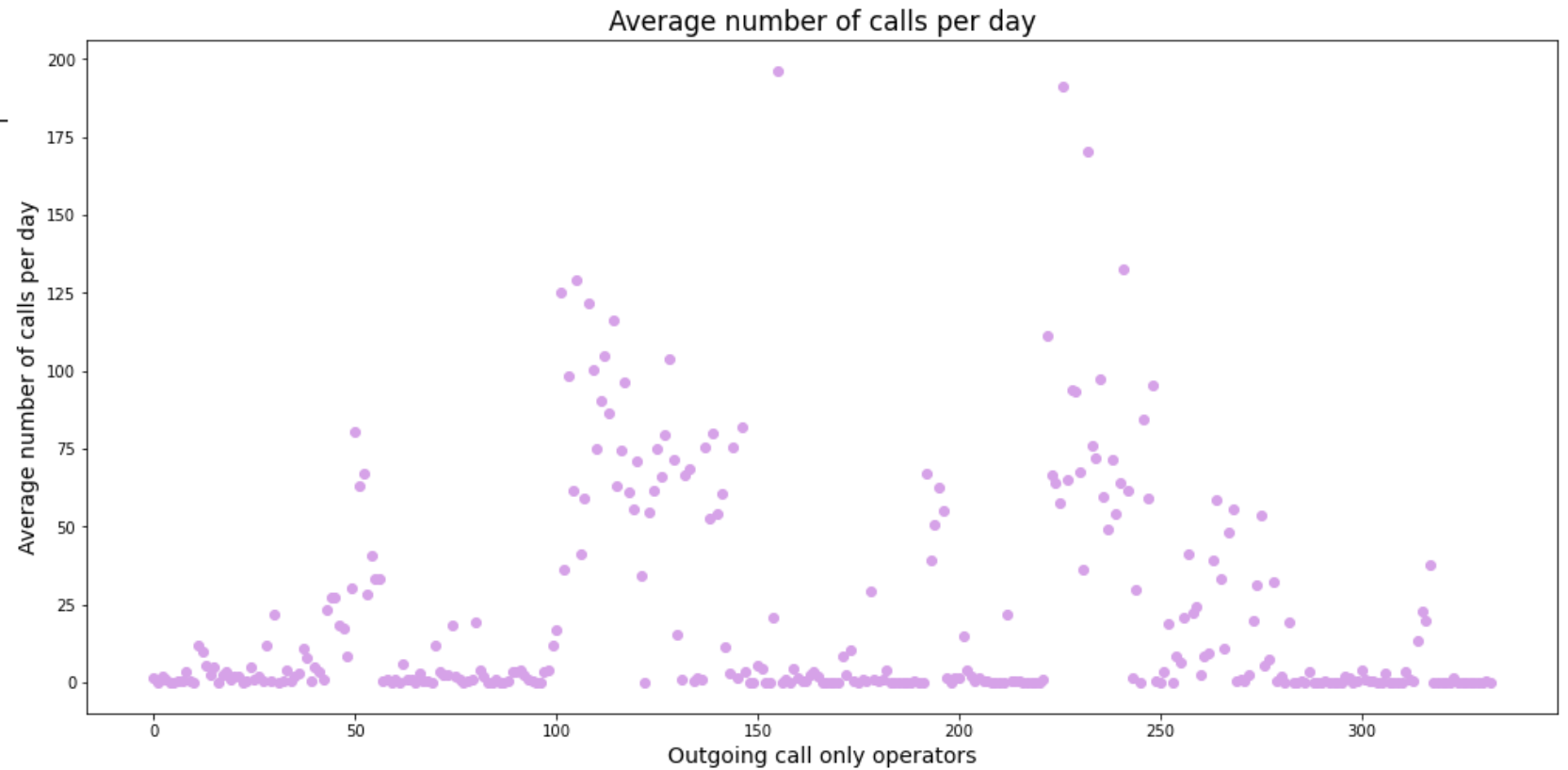
Outgoing calls

- *there are 338 operators out of 1092 that made only outgoing calls*
- *small number of them is also a sign of ineffectiveness*



Only outgoing calls operators

- the most of the operators have made less than 10 outgoing calls per day on average

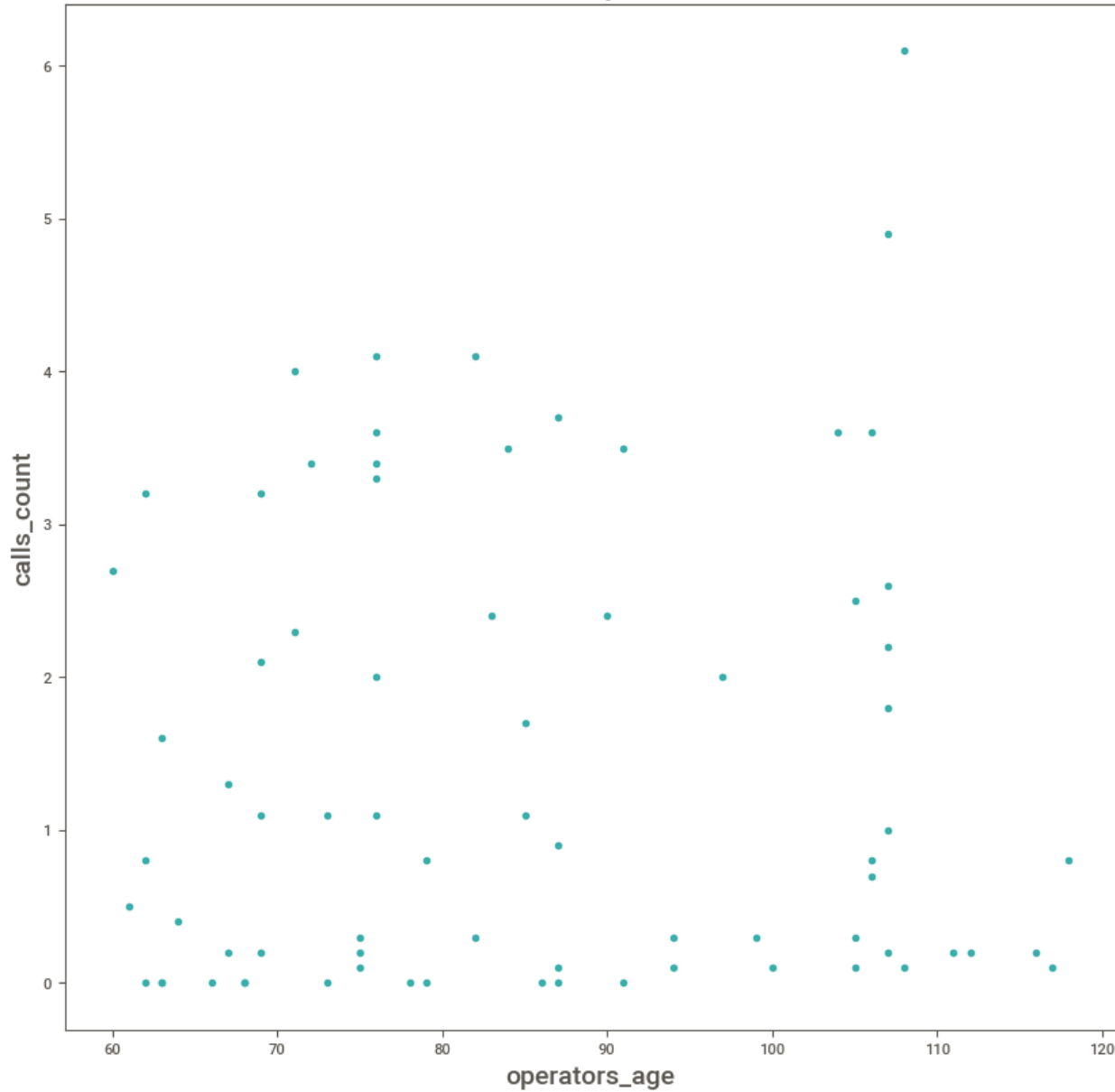


Only outgoing calls operators

Less than 10
outgoing calls per
day on average



Group 0



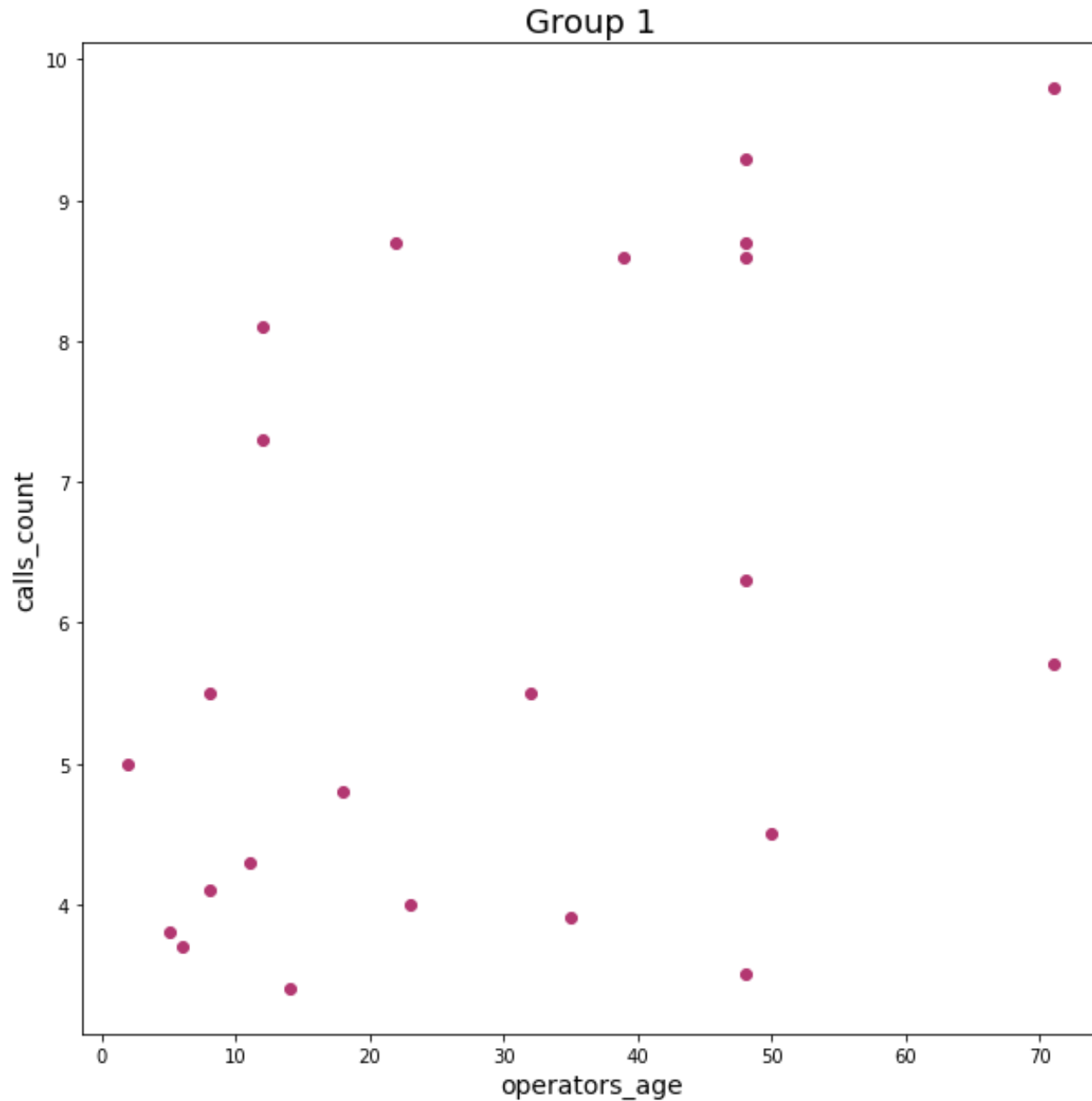
Group 0:
1.42 average number of
calls per day.

- minimum age of operators: 60 days
- maximum age 118 days
- 74 bad operators in this group

Group 0: 1.42 average number of calls per day.

- list of all inefficient
operators in this group

881278, 890232, 891152, 891154, 891156, 891158, 891160, 891162,
891166, 891170, 894226, 896008, 905570, 906866, 907180, 907442,
909910, 910520, 910532, 910902, 910926, 914238, 914338, 914626,
915358, 915360, 915558, 918390, 918452, 920146, 921116, 921316,
922476, 923250, 924356, 924370, 924572, 928282, 928284, 929544,
930524, 930662, 930912, 930914, 932050, 937352, 939236, 939886,
943050, 945728, 947480, 950444, 951648, 954642, 955068, 955082,
955086, 955090, 955094, 955820, 956298, 957022, 960666, 960670,
960672, 960674, 960950, 962904, 963716, 964716, 965328, 969600,
972408, 972410



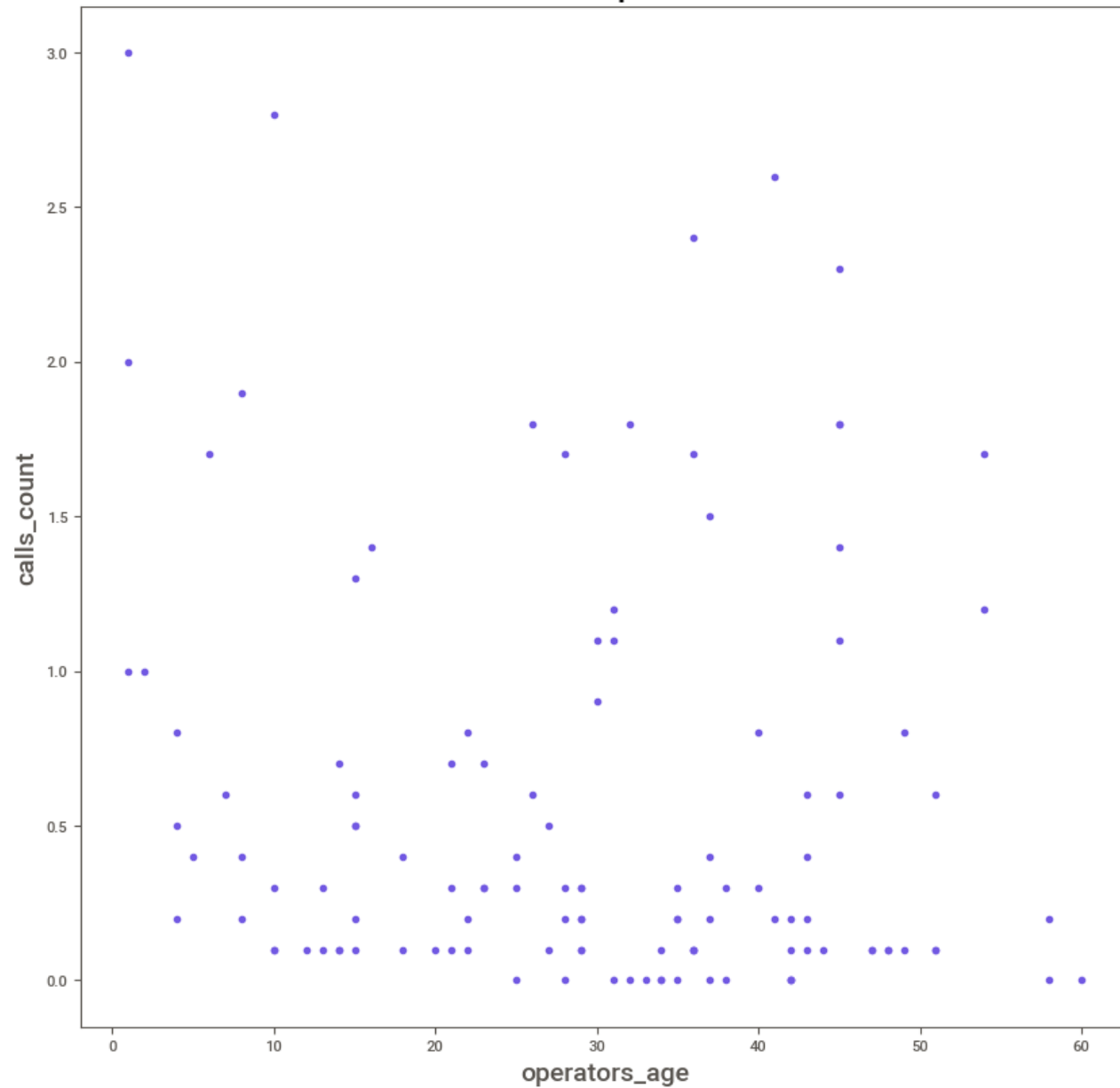
Group 1:

5.9 average number of calls per day

- minimum age: 2 days
- maximum age: 71 days
- 23 ineffective operators in this group:

887992, 890420, 890422, 891252, 894934, 896390, 898434, 898902, 899972, 915504, 925134, 928228, 930586, 933806, 937650, 947590, 947598, 947600, 947640, 947644, 952460, 952466, 958480

Group 2



Group 2:
0.56 average number of
calls per day.

- minimum age of operators: 1 day
- maximum age 60 days
- 119 bad operators in this group

Group 2: 0.56 average number of calls per day

- list of all inefficient
operators in this group

880240, 883018, 883898, 884402, 884406, 885682, 887280, 890234,
891192, 891250, 891746, 891970, 891976, 892800, 893700, 895370,
896384, 897894, 899076, 905308, 905470, 905480, 905840, 907998,
908718, 908984, 909308, 909452, 910524, 910594, 914036, 914240,
914266, 914272, 914348, 914816, 916596, 917446, 917682, 917890,
919418, 920928, 929542, 930590, 930692, 932088, 932246, 932676,
932856, 933452, 933810, 935246, 936296, 937156, 937422, 937428,
937430, 937710, 937716, 937720, 937770, 937772, 937778, 937870,
937872, 937900, 938842, 939718, 939736, 940460, 940474, 940486,
940782, 940788, 940802, 940814, 940842, 940848, 941736, 941740,
941810, 941816, 941826, 941838, 941842, 942174, 945898, 946454,
947596, 947636, 947820, 951408, 953362, 953458, 953460, 954284,
954376, 954378, 954380, 958440, 958444, 958458, 958472, 958672,
959118, 959596, 965232, 967204, 969262, 969268, 969284, 969286,
969386, 970242, 970250, 970258, 970484, 970486, 973120])

Conclusion – ineffective operators

- all ineffective operators have been detected through this presentation
- data with known operators contains 33% missed calls and 67% received calls
- data with known and unknown operators contains 56% missed calls and 44% received calls