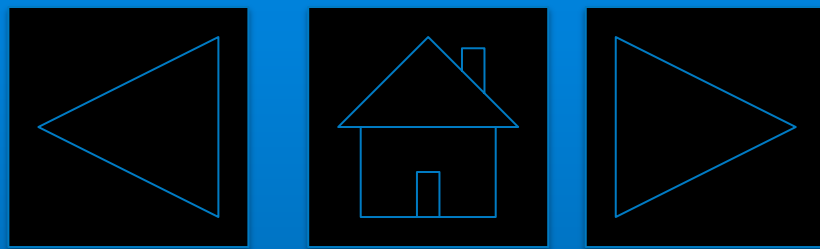


SAS® GLOBALFORUM 2015

The Journey Is Yours

Efficient way to build up chains and waves for Respondent Driven Sampling data



Abstract

•Respondent Driven Sampling (RDS) is both a sampling method and a data analysis technique. As a sampling method, RDS is a chain referral technique with strategic recruitment quotas and specific data gathering requirements. Like other chain referral techniques—for instance: snowball sampling—the chains and waves are the start point to conduct analysis. But building the chains and waves still would be a daunting task since it involves too many transpositions and merges. This paper provides an efficient method of using SAS to build up chains and waves using SAS base.

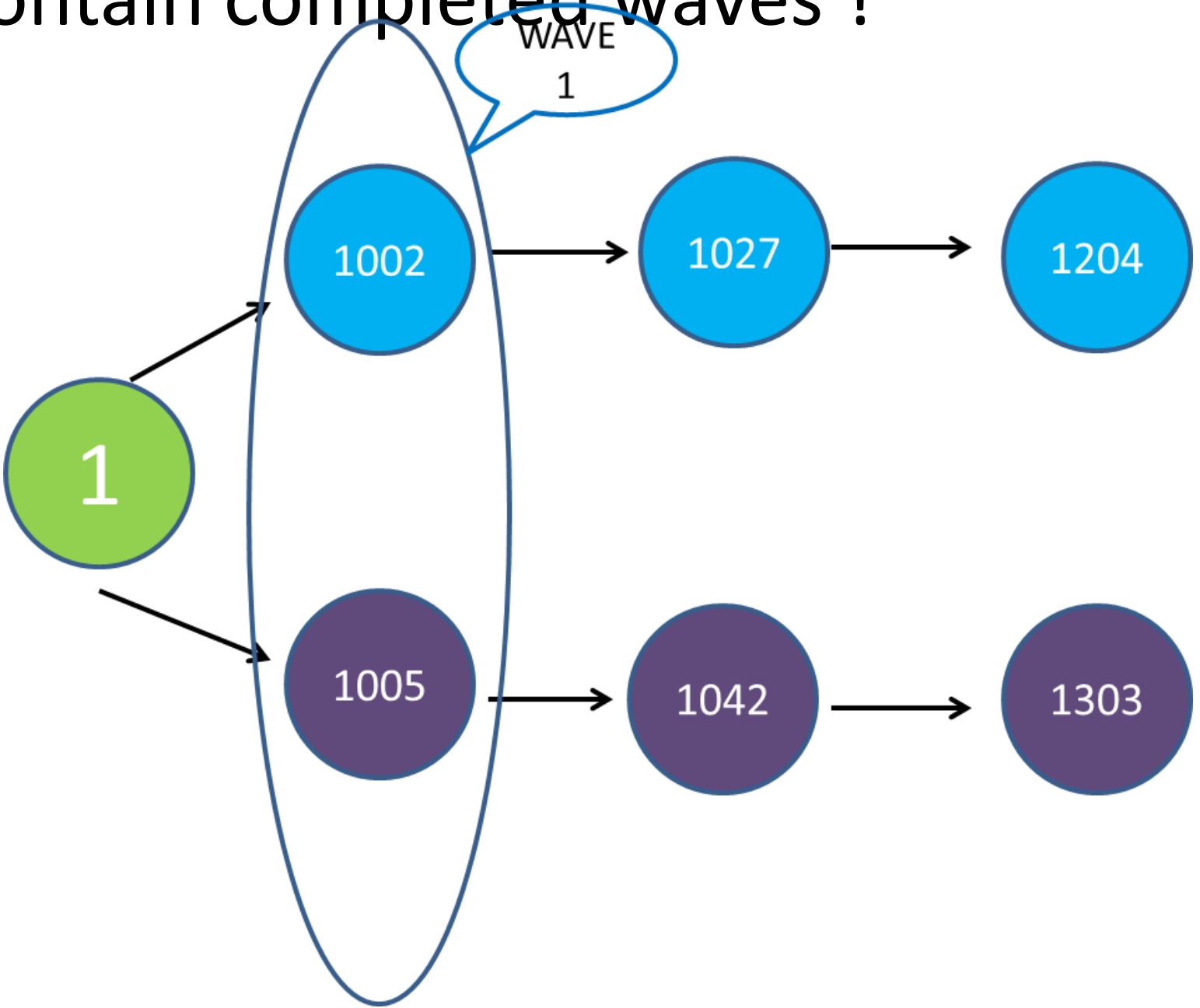
Introduction

The following table is a sample dataset that contains 6 variables. Surid is the Coupon ID the participant has when he comes back for the interview. And the R_Coupon_Given_1 to R_Coupon_Given_5 is the coupons the participant gives out. If the Surid is less than 1000, it is the seed for the chains and waves.

Surid	R_coupon_given_1	R_coupon_given_2	R_coupon_given_3	R_coupon_given_4	R_coupon_given_5
1	1001	1002	1003	1004	1005
2	1006	1007	1008	1009	1010
3	1011	1012	1013	1014	1015
1001	1021	1022	1023	1024	1025
1002	1026	1027	1028	1029	1030
1003	1031	1032	1033	1034	1035
1004	1036	1037	1038	1039	1040
1005	1041	1042	1043	1044	1045
1006	1046	1047	1048	1049	1050
1007	1051	1052	1053	1054	1055
1008	1056	1057	1058	1059	1060
1009	1061	1062	1063	1064	1065
1010	1066	1067	1068	1069	1070
1011	1071	1072	1073	1074	1075
1012	1076	1077	1078	1079	1080
1013	1081	1082	1083	1084	1085
1014	1086	1087	1088	1089	1090
1015	1091	1092	1093	1094	1095
1027	1200	1201	1202	1203	1204
1030	1205	1206	1207	1208	1209
1042	1300	1301	1302	1303	1304
1058	1400	1401	1402	1403	1404
1204	1415	1416	1417	1418	1419
1208	1420	1421	1422	1423	1424
1303	1426	1427	1428	1429	1430

Objective

Questions:
How many chains start with Surid=1 ?
How many chains that start with Surid=1 contain completed waves ?



Result

Table of chain by wave						
chain	wave					Total
	0	1	2	3	4	
-1	3	0	0	0	0	3
	2.34	0.00	0.00	0.00	0.00	2.34
	100.00	0.00	0.00	0.00	0.00	100.00
	100.00	0.00	0.00	0.00	0.00	100.00
1	0	5	25	15	15	60
	0.00	3.91	19.53	11.72	11.72	46.88
	0.00	8.33	41.67	25.00	25.00	100.00
	0.00	33.33	33.33	75.00	100.00	241.66
2	0	5	25	5	0	35
	0.00	3.91	19.53	3.91	0.00	27.34
	0.00	14.29	71.43	14.29	0.00	100.00
	0.00	33.33	33.33	25.00	0.00	91.66
3	0	5	25	0	0	30
	0.00	3.91	19.53	0.00	0.00	23.44
	0.00	16.67	83.33	0.00	0.00	100.00
	0.00	33.33	33.33	0.00	0.00	66.66
Total	3	15	75	20	15	128
	2.34	11.72	58.59	15.63	11.72	100.00

Answers to the Questions:
5 chains start with Surid=1
15 chains that start with Surid=1 contain completed waves ?



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