Linear Model using Development Dataset

The REG Procedure
Model: MODEL1
Dependent Variable: handle

Number of Observations Read	4385
Number of Observations Used	4385

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	153	1.913864E14	1.250891E12	Infty	<.0001
Error	4231	0	0		
Corrected Total	4384	1.913864E14			

Root MSE	0	**R-Square**	1.0000
Dependent Mean	346952	**Adj R-Sq**	1.0000
Coeff Var	0		

Note: Model is not full rank. Least-squares solutions for the parameters are not unique. Some statistics will be misleading. A reported DF of 0 or B means that the estimate is biased.

Note: The following parameters have been set to 0, since the variables are a linear combination of other variables as shown.

purse_usa_MT_100K =	Intercept - purse_usa_25K - purse_usa_30K - purse_usa_40K - purse_usa_100K
weather_F =	track_condition_FT + track_condition_FM + track_condition_SY + track_condition_GD + track_condition_YL + track_condition_MY + track_condition_SF + track_condition_WF - weather_C - weather_L - weather_O - weather_H - weather_R
maximum_claim_price___7K =	minimum_claim_price__7K
maximum_claim_price___4K =	minimum_claim_price__4K
number_of_runners__0 =	race_type_CAN

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	B	7.279255E-8	0	Infty	<.0001
wps_pool	wps_pool	1	1.00000	0	Infty	<.0001
total_pool_sum	total_pool	1	1.00000	0	Infty	<.0001
track_id_AP		1	-1.10765E-9	0	-Infty	<.0001
track_id_CRC		1	-1.11341E-9	0	-Infty	<.0001
race_number_1		1	-2.11914E-8	0	-Infty	<.0001
race_number_2		1	-2.10213E-8	0	-Infty	<.0001
race_number_3		1	-2.0994E-8	0	-Infty	<.0001
race_number_4		1	-2.10611E-8	0	-Infty	<.0001
race_number_5		1	-2.10114E-8	0	-Infty	<.0001
race_number_6		1	-2.09384E-8	0	-Infty	<.0001
race_number_7		1	-2.103E-8	0	-Infty	<.0001
race_number_8		1	-2.13385E-8	0	-Infty	<.0001
race_number_9		1	-2.09522E-8	0	-Infty	<.0001
race_number_10		1	-2.10502E-8	0	-Infty	<.0001
race_number_11		1	-2.11247E-8	0	-Infty	<.0001
race_number_12		1	-2.0807E-8	0	-Infty	<.0001
race_number_13		1	-2.09852E-8	0	-Infty	<.0001
conditions_of_race_NW2_L		1	1.51416E-10	0	Infty	<.0001

conditions_of_race_NW1_X		1	5.97537E-10	0	Infty	<.0001
conditions_of_race_NW2_X		1	6.91677E-10	0	Infty	<.0001
conditions_of_race_NW3_L		1	2.97628E-10	0	Infty	<.0001
conditions_of_race_C		1	2.30899E-10	0	Infty	<.0001
conditions_of_race_NW3_X		1	3.40341E-10	0	Infty	<.0001
conditions_of_race_OTHER		1	1.23151E-10	0	Infty	<.0001
race_type_CLM		1	-4.47421E-8	0	-Infty	<.0001
race_type_MCL		1	-4.48672E-8	0	-Infty	<.0001
race_type_MSW		1	-3.01716E-8	0	-Infty	<.0001
race_type_AOC		1	-4.48934E-8	0	-Infty	<.0001
race_type_ALW		1	-3.02629E-8	0	-Infty	<.0001
race_type_STK		1	1.445591E-8	0	Infty	<.0001
race_type_STR		1	-5.03584E-9	0	-Infty	<.0001
race_type_CAN		B	-7.3221E-8	0	-Infty	<.0001
age_restriction_3U		1	-2.21274E-8	0	-Infty	<.0001
age_restriction_02		1	-2.18851E-8	0	-Infty	<.0001
age_restriction_34		1	-2.17497E-8	0	-Infty	<.0001
age_restriction_03		1	-2.20746E-8	0	-Infty	<.0001
age_restriction_35		1	-2.21388E-8	0	-Infty	<.0001
age_restriction_45		1	-2.21666E-8	0	-Infty	<.0001
age_restriction_4U		1	-2.24261E-8	0	-Infty	<.0001
sex_restriction_B		1	-1.3409E-10	0	-Infty	<.0001
sex_restriction_F		1	-5.4235E-12	0	-Infty	<.0001
stakes_indicator_N		1	7.018379E-8	0	Infty	<.0001
distance_id_600		1	-8.74299E-9	0	-Infty	<.0001
distance_id_800		1	-8.48584E-9	0	-Infty	<.0001
distance_id_850		1	-8.59069E-9	0	-Infty	<.0001
distance_id_550		1	-8.70469E-9	0	-Infty	<.0001
distance_id_700		1	-8.52577E-9	0	-Infty	<.0001
distance_id_500		1	-8.56205E-9	0	-Infty	<.0001
distance_id_650		1	-8.45041E-9	0	-Infty	<.0001
distance_id_900		1	-8.44945E-9	0	-Infty	<.0001
distance_id_832		1	-8.6478E-9	0	-Infty	<.0001
distance_id_450		1	-8.21341E-9	0	-Infty	<.0001
distance_id_750		1	-8.65018E-9	0	-Infty	<.0001
distance_id_818		1	-8.89949E-9	0	-Infty	<.0001
distance_id_1200		1	-9.89549E-9	0	-Infty	<.0001
distance_id_1000		1	-7.84145E-9	0	-Infty	<.0001
distance_id_200		1	-1.22419E-8	0	-Infty	<.0001
distance_id_950		1	-7.97249E-9	0	-Infty	<.0001
about_distance_indicator_A		1	-9.9023E-11	0	-Infty	<.0001
course_type_T		1	1.700875E-9	0	Infty	<.0001
purse_usa_25K		B	-1.65462E-9	0	-Infty	<.0001
purse_usa_30K		B	-1.71559E-9	0	-Infty	<.0001
purse_usa_40K		B	-2.11269E-9	0	-Infty	<.0001
purse_usa_100K		B	-2.45122E-9	0	-Infty	<.0001
purse_usa_MT_100K		0	0	.	.	.
track_condition_FT		B	-1.41125E-8	0	-Infty	<.0001
track_condition_FM		B	-1.57748E-8	0	-Infty	<.0001
track_condition_SY		B	-1.36666E-8	0	-Infty	<.0001
track_condition_GD		B	-1.49502E-8	0	-Infty	<.0001

track_condition_YL		B	-1.57507E-8	0	-Infty	<.0001
track_condition_MY		B	-1.35541E-8	0	-Infty	<.0001
track_condition_SF		B	-1.59075E-8	0	-Infty	<.0001
track_condition_WF		B	-1.39006E-8	0	-Infty	<.0001
weather_C		B	1.413724E-9	0	Infty	<.0001
weather_L		B	1.428064E-9	0	Infty	<.0001
weather_O		B	1.638407E-9	0	Infty	<.0001
weather_H		B	1.621593E-9	0	Infty	<.0001
weather_R		B	1.485975E-9	0	Infty	<.0001
weather_F		0	0	.	.	.
minimum_claim_price___0		1	-4.00263E-8	0	-Infty	<.0001
minimum_claim_price_10K		1	-1.52255E-9	0	-Infty	<.0001
minimum_claim_price_16K		1	1.607985E-9	0	Infty	<.0001
minimum_claim_price_25K		1	-1.89765E-9	0	-Infty	<.0001
minimum_claim_price_12K		1	-4.1033E-10	0	-Infty	<.0001
minimum_claim_price_40K		1	-6.9151E-10	0	-Infty	<.0001
minimum_claim_price_20K		1	-1.6777E-9	0	-Infty	<.0001
minimum_claim_price_50K		1	-9.3148E-10	0	-Infty	<.0001
minimum_claim_price__5K		1	7.24379E-10	0	Infty	<.0001
minimum_claim_price_32K		1	2.254417E-9	0	Infty	<.0001
minimum_claim_price_30K		1	-9.0738E-10	0	-Infty	<.0001
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minimum_claim_price__8K		1	8.39826E-11	0	Infty	<.0001
minimum_claim_price_62K		1	3.10432E-9	0	Infty	<.0001
minimum_claim_price__7K		B	-1.16132E-8	0	-Infty	<.0001
minimum_claim_price__6K		1	8.62149E-11	0	Infty	<.0001
minimum_claim_price_17K		1	-1.19172E-9	0	-Infty	<.0001
minimum_claim_price__4K		B	-1.12476E-8	0	-Infty	<.0001
minimum_claim_price_18K		1	-8.4129E-10	0	-Infty	<.0001
maximum_claim_price_100K		1	-1.05195E-8	0	-Infty	<.0001
maximum_claim_price____0		1	1.392739E-8	0	Infty	<.0001
maximum_claim_price__10K		1	-9.97109E-9	0	-Infty	<.0001
maximum_claim_price__25K		1	-9.73348E-9	0	-Infty	<.0001
maximum_claim_price__16K		1	-1.33555E-8	0	-Infty	<.0001
maximum_claim_price__12K		1	-1.12821E-8	0	-Infty	<.0001
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maximum_claim_price__35K		1	-1.04464E-8	0	-Infty	<.0001
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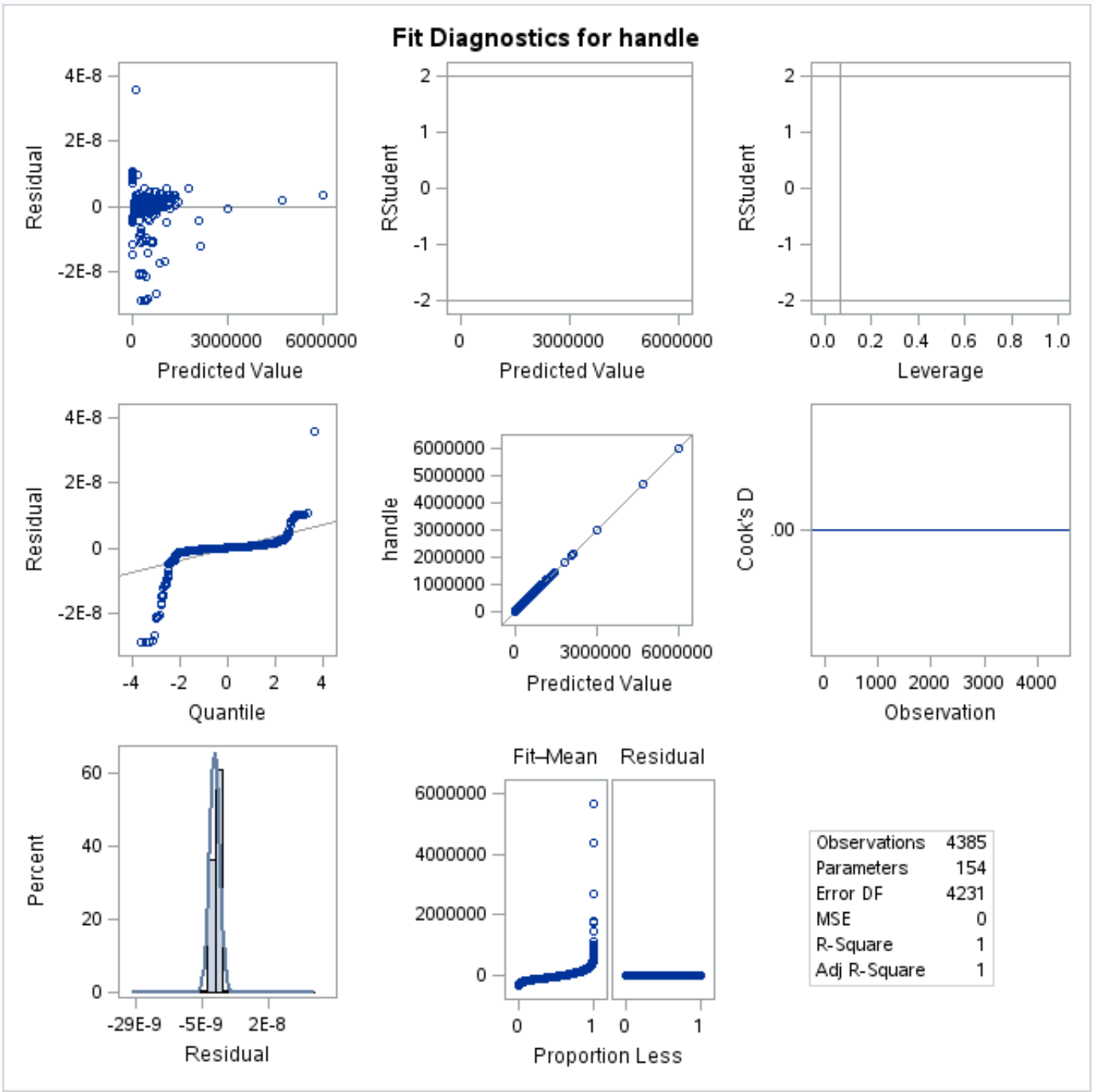
maximum_claim_price___7K		0	0	.	.	.
maximum_claim_price___4K		0	0	.	.	.
maximum_claim_price__18K		1	-1.2671E-8	0	-Infty	<.0001

maximum_claim_price__14K		1	-1.10207E-8	0	-Infty	<.0001
maximum_claim_price__13K		1	-1.14204E-8	0	-Infty	<.0001
maximum_claim_price__80K		1	-1.0369E-8	0	-Infty	<.0001
grade_1		1	6.198078E-9	0	Infty	<.0001
grade_2		1	-5.11502E-9	0	-Infty	<.0001
grade_3		1	-3.9395E-10	0	-Infty	<.0001
number_of_runners__0		0	0	.	.	.
number_of_runners__3		1	-1.94663E-8	0	-Infty	<.0001
number_of_runners__4		1	-1.83275E-8	0	-Infty	<.0001
number_of_runners__5		1	-1.93754E-8	0	-Infty	<.0001
number_of_runners__6		1	-1.92977E-8	0	-Infty	<.0001
number_of_runners__7		1	-1.93559E-8	0	-Infty	<.0001
number_of_runners__8		1	-1.92103E-8	0	-Infty	<.0001
number_of_runners__9		1	-1.91728E-8	0	-Infty	<.0001
number_of_runners_10		1	-1.92115E-8	0	-Infty	<.0001
number_of_runners_11		1	-1.90663E-8	0	-Infty	<.0001
number_of_runners_12		1	-1.90467E-8	0	-Infty	<.0001
abbreviated_name_RACE_HAS		1	2.596989E-8	0	Infty	<.0001
track_sealed_indicator_Y		1	-6.2421E-10	0	-Infty	<.0001
track_sealed_indicator_N		1	2.54043E-10	0	Infty	<.0001
race_date_Super_Bowl		1	-1.9212E-10	0	-Infty	<.0001
race_date_Patricks_Day		1	3.59921E-11	0	Infty	<.0001
race_date_Good_Friday		1	-5.9965E-11	0	-Infty	<.0001
race_date_Easter		1	-1.6485E-10	0	-Infty	<.0001
race_date_Cinco_Mayo		1	1.65128E-10	0	Infty	<.0001
race_date_Memorial_Day		1	-1.7241E-13	0	-Infty	<.0001
race_date_Indep_Day		1	-7.5666E-11	0	-Infty	<.0001
race_date_Labor_Day		1	-1.2202E-10	0	-Infty	<.0001
race_date_Veterans_Day		1	-2.1278E-10	0	-Infty	<.0001
race_date_Thanksgiving		1	-3.3359E-10	0	-Infty	<.0001
race_date_Boxing_Day		1	6.53386E-10	0	Infty	<.0001
race_date_New_Year_Day		1	-4.0112E-10	0	-Infty	<.0001
race_weekday_Sun		1	1.02234E-11	0	Infty	<.0001
race_weekday_Mon		1	8.66262E-11	0	Infty	<.0001
race_weekday_Wed		1	1.09405E-10	0	Infty	<.0001
race_weekday_Thu		1	-7.7087E-13	0	-Infty	<.0001
race_weekday_Fri		1	1.16985E-10	0	Infty	<.0001
race_weekday_Sat		1	1.92471E-10	0	Infty	<.0001

Linear Model using Development Dataset

The REG Procedure
Model: MODEL1
Dependent Variable: handle


Fit Diagnostics for handle
Residual
Predicted Value
RStudent
Predicted Value
RStudent
Leverage
Residual
Quantile
handle
Predicted Value
Cook's D
Observation
Percent
Residual
Fit–Mean
Residual
Proportion Less
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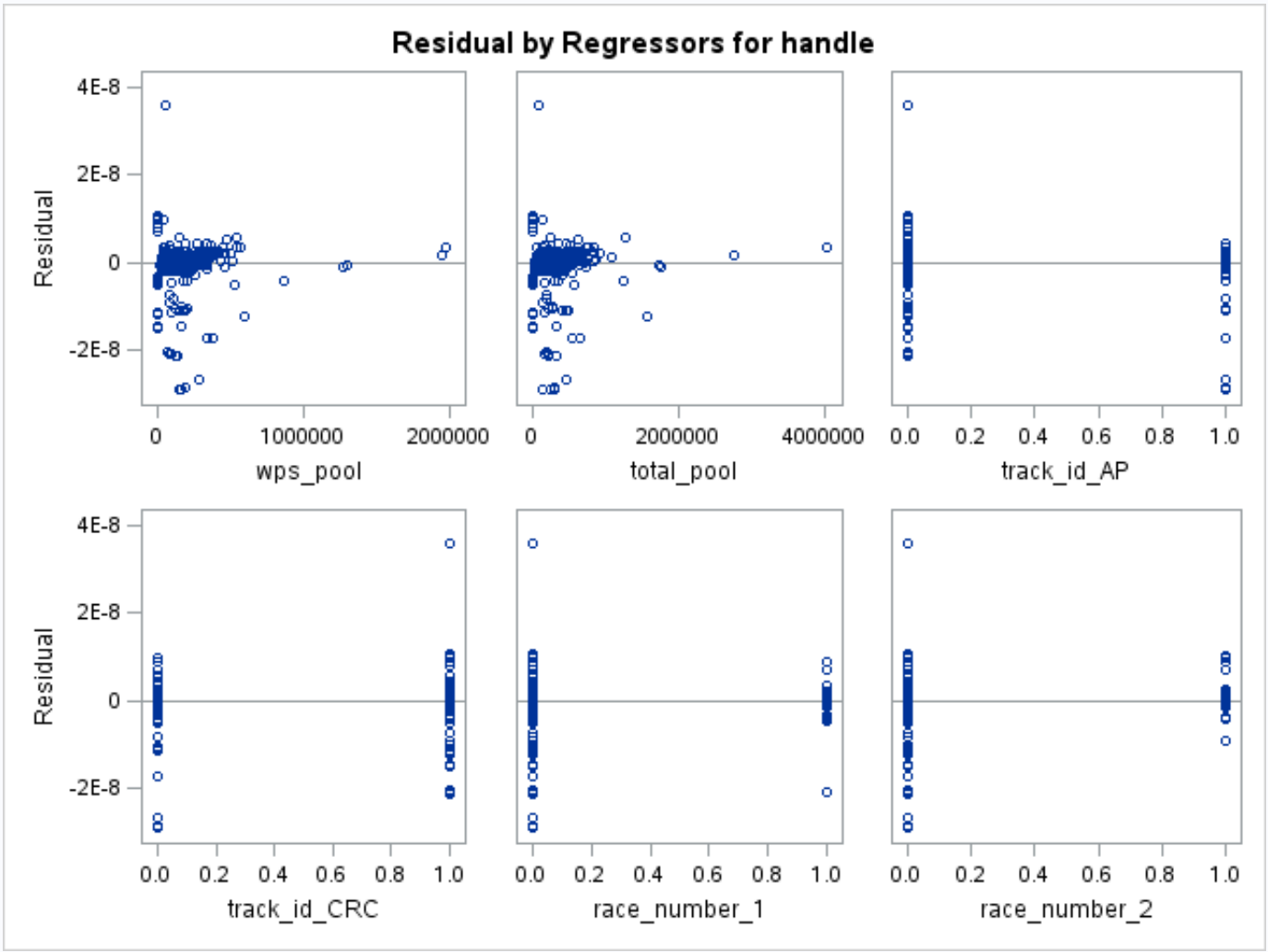
Parameters 154
Error DF 4231
MSE 0
R-Square 1
Adj R-Square 1


Residual by Regressors for handle
Residual
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2E-8
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wps_pool
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4000000
total_pool
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0.6
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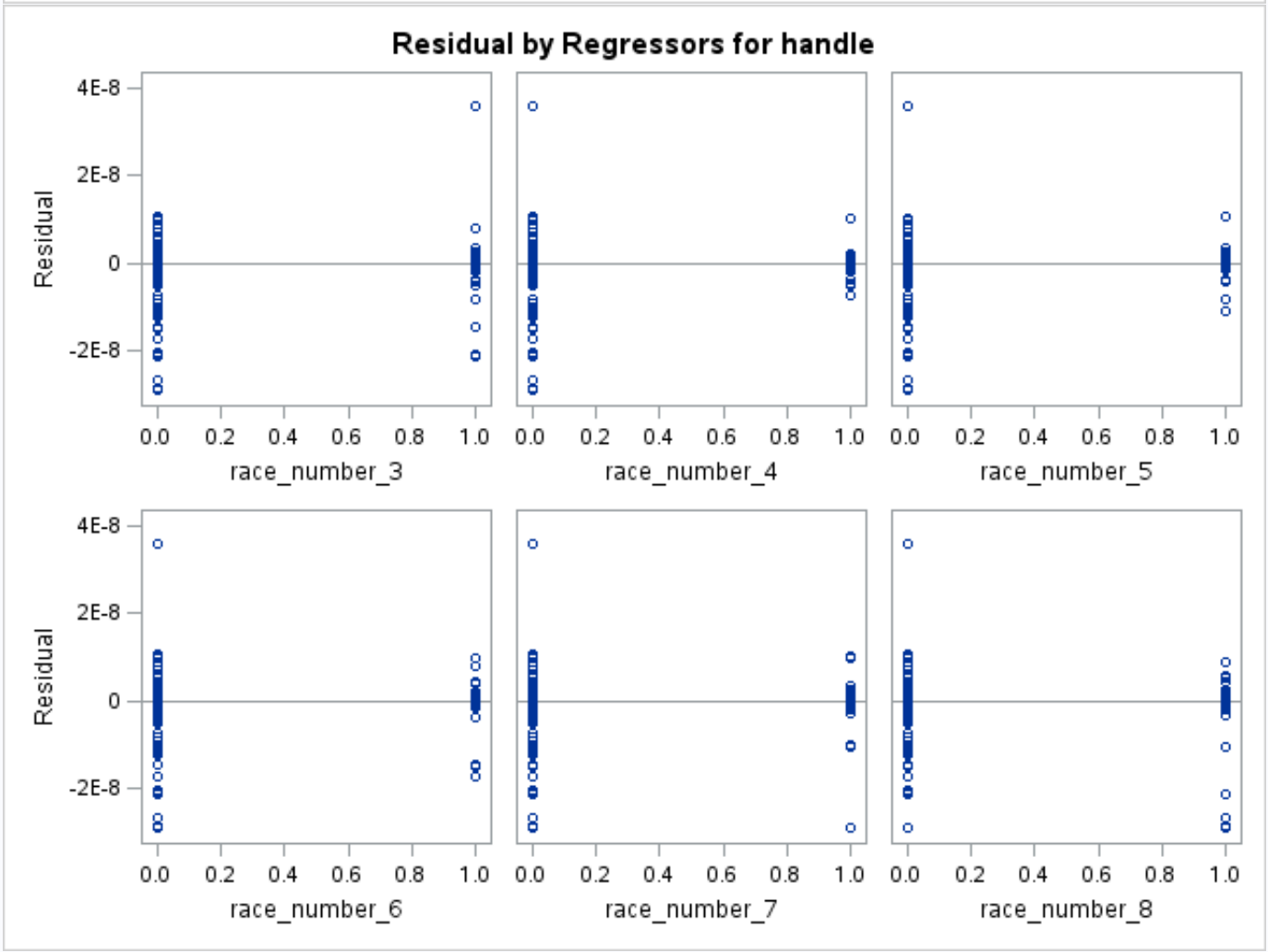
track_id_AP
track_id_CRC
race_number_1
race_number_2


Residual by Regressors for handle
Residual
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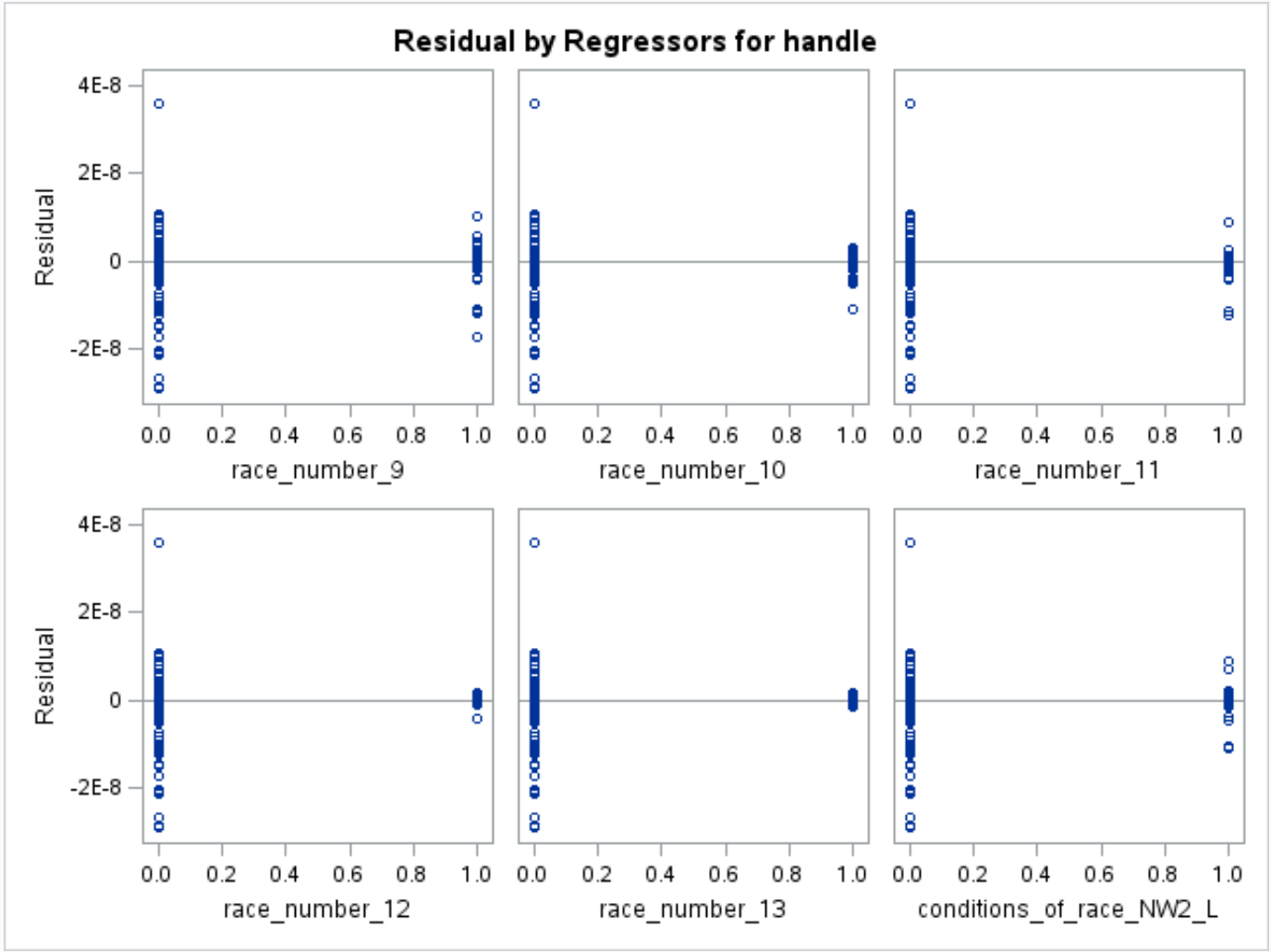
0.0
0.2
0.4
0.6
0.8
1.0
race_number_3
race_number_4
race_number_5
race_number_6
race_number_7
race_number_8


Residual by Regressors for handle
Residual
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2E-8
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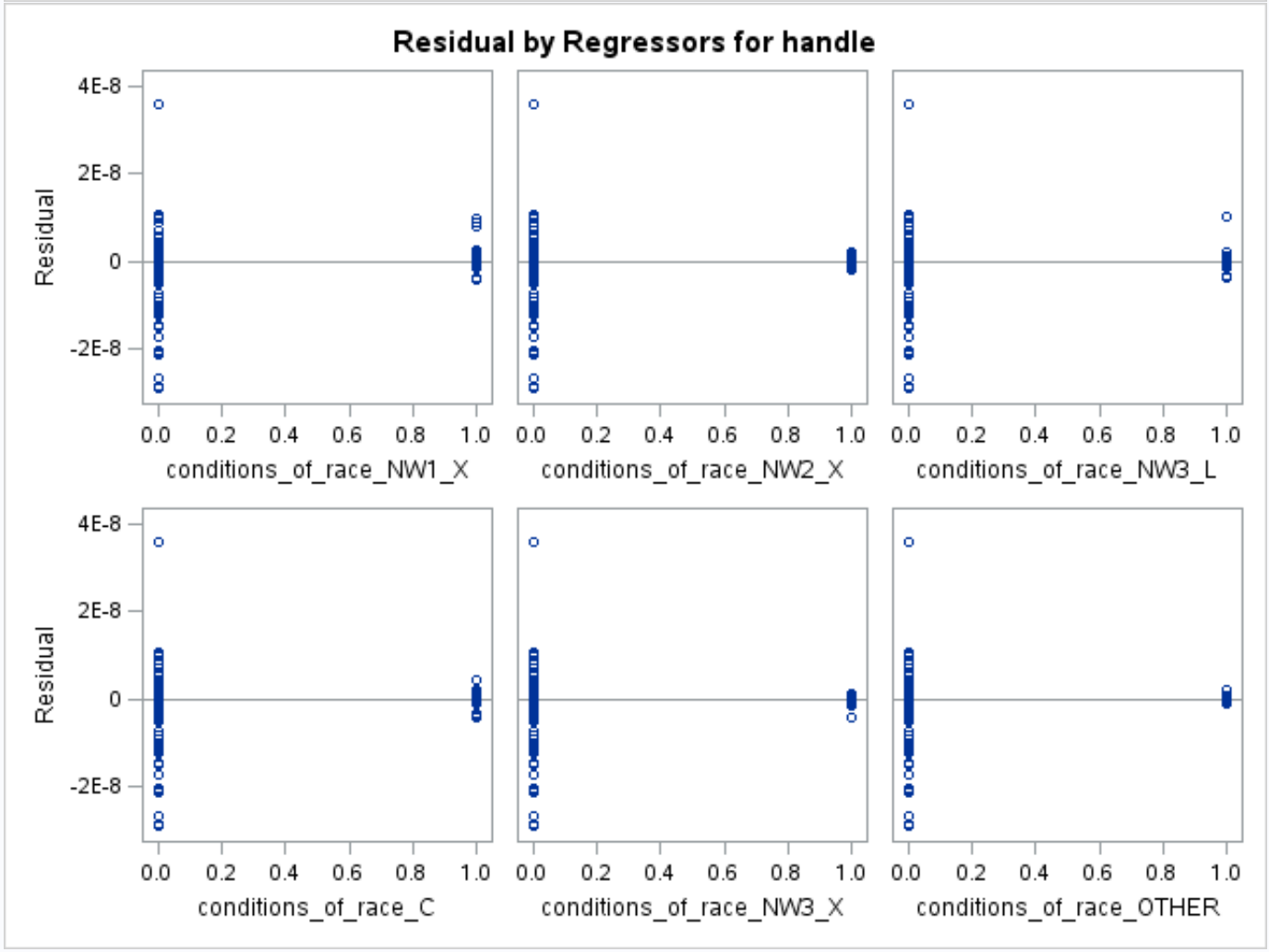
-2E-8
0.0 0.2 0.4 0.6 0.8 1.0
race_number_9
race_number_10
race_number_11
race_number_12
race_number_13
conditions_of_race_NW2_L


Residual by Regressors for handle
Residual
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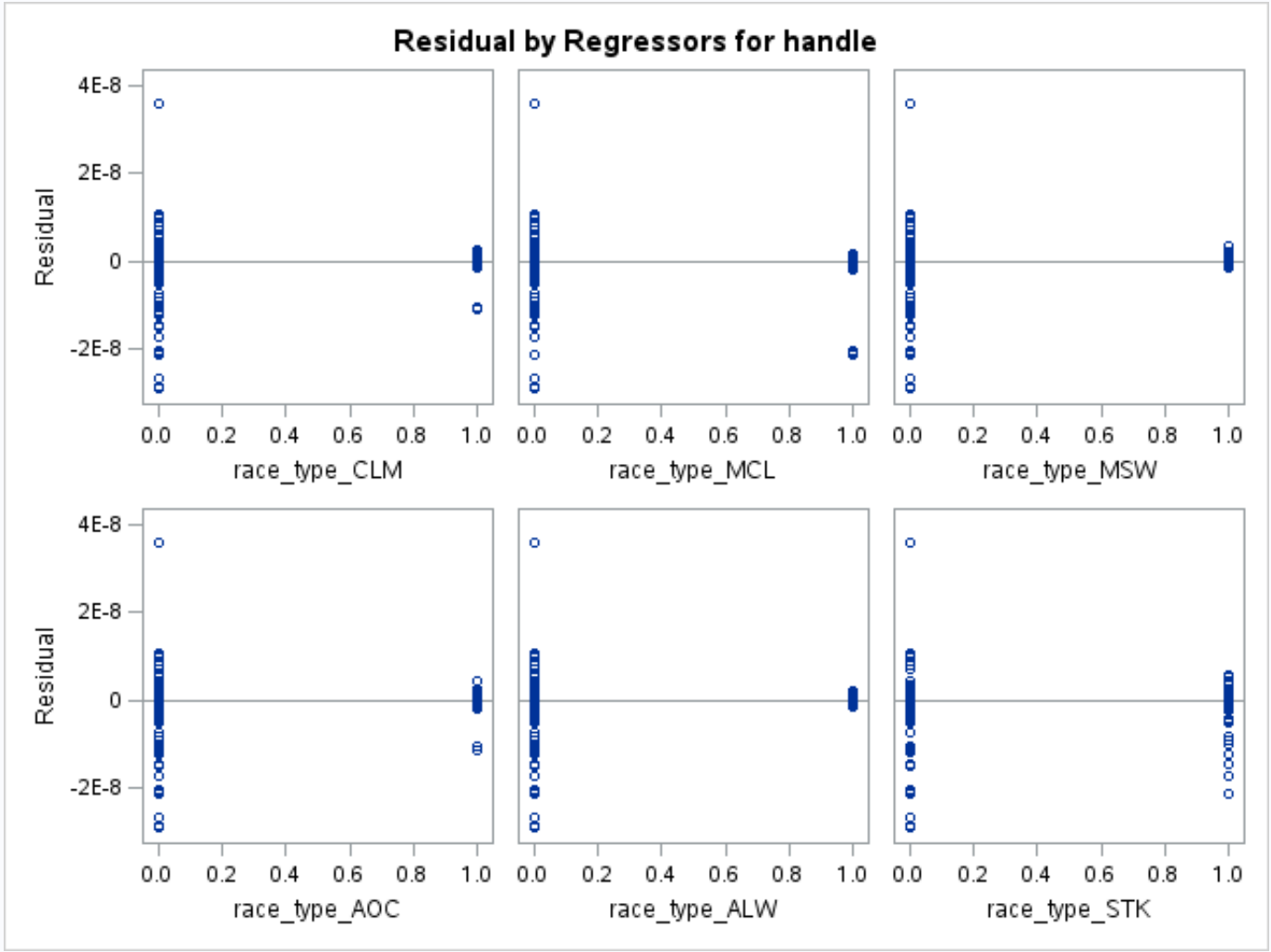
0
-2E-8
0.0 0.2 0.4 0.6 0.8 1.0
conditions_of_race_NW1_X
conditions_of_race_NW2_X
conditions_of_race_NW3_L
conditions_of_race_C
conditions_of_race_NW3_X
conditions_of_race_OTHER


Residual by Regressors for handle
Residual
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0.2
0.4
0.6
0.8
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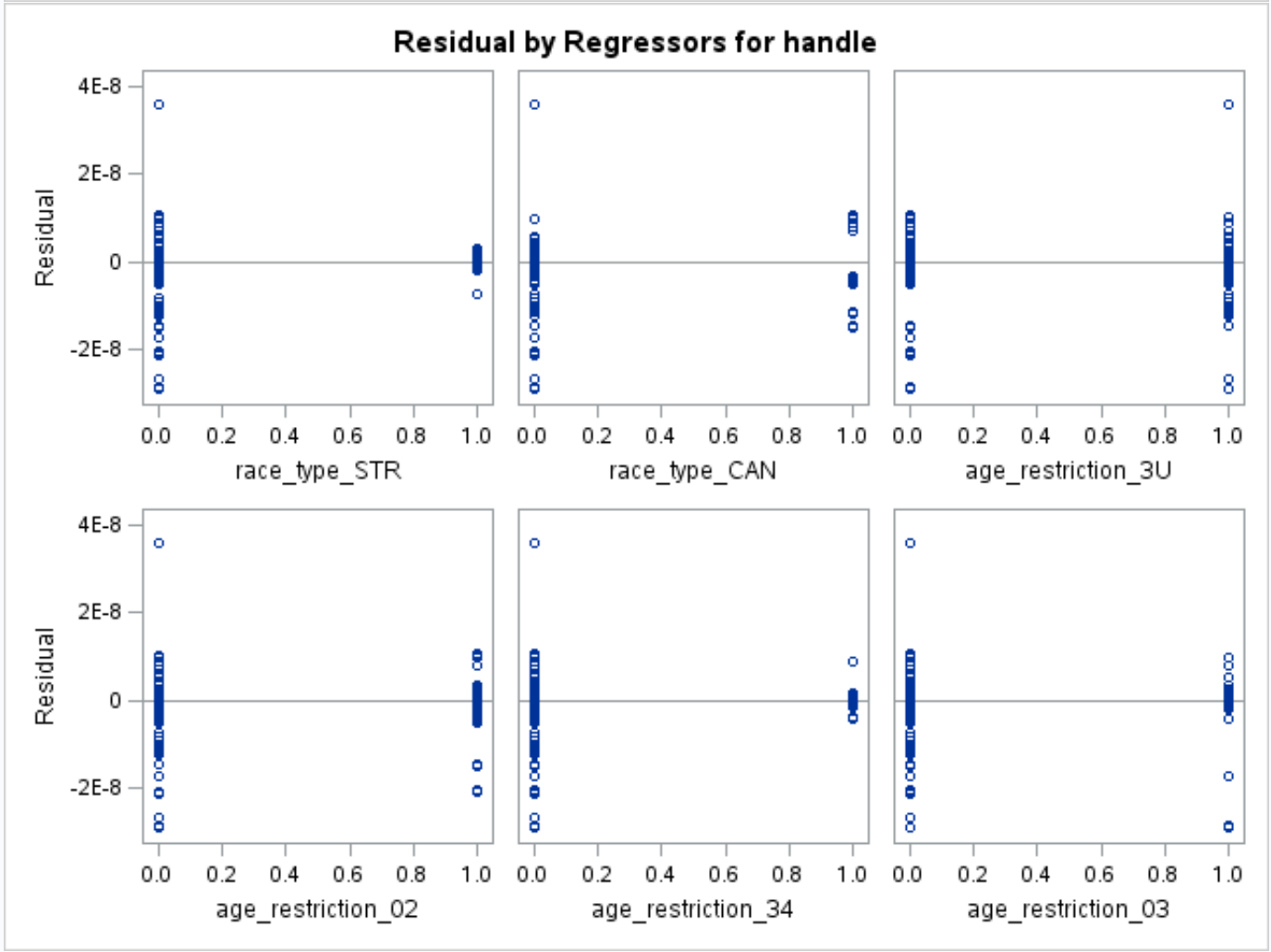
race_type_MCL
race_type_MSW
race_type_AOC
race_type_ALW
race_type_STK


Residual by Regressors for handle
Residual
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0.2
0.4
0.6
0.8
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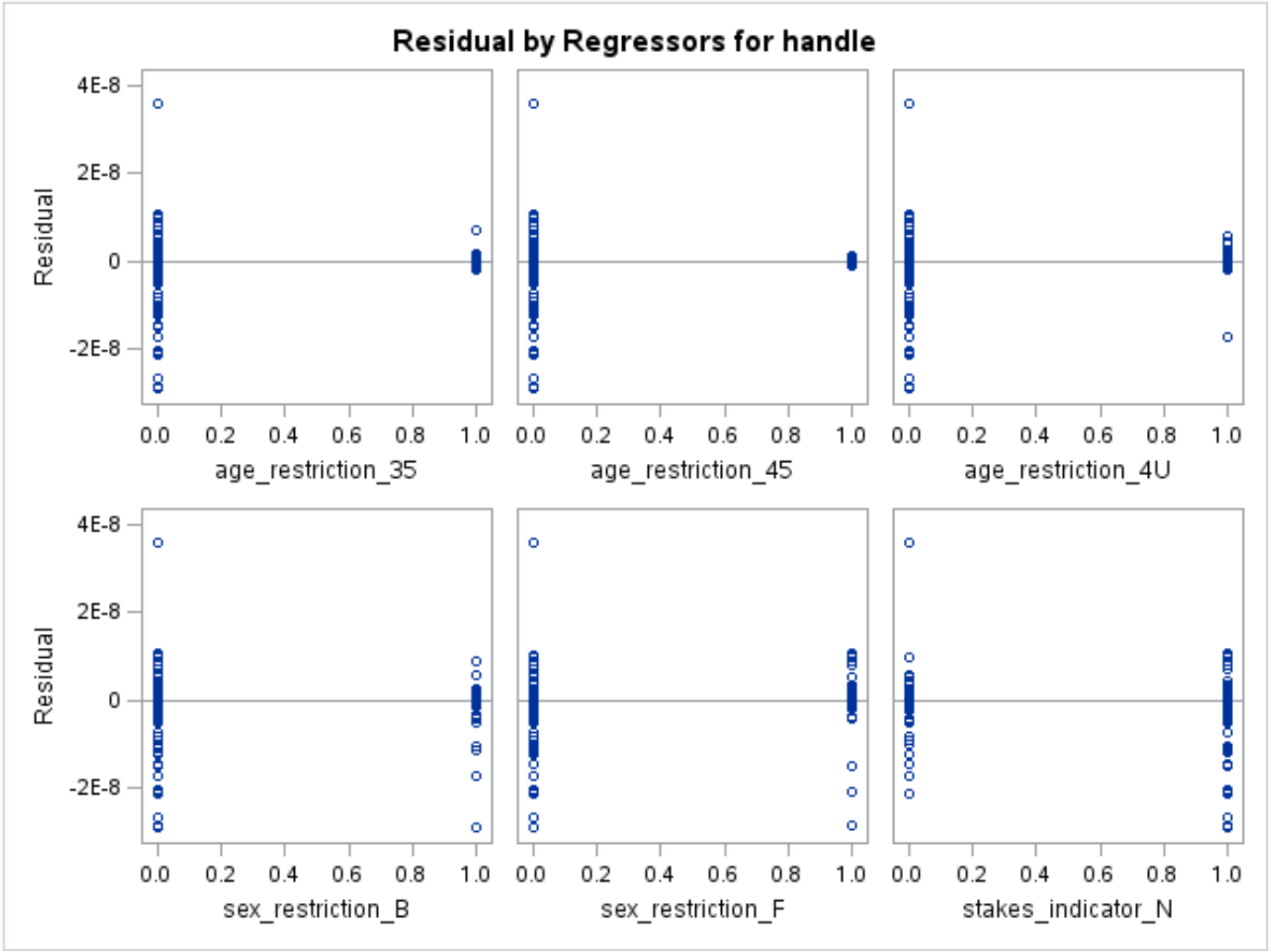
race_type_CAN
age_restriction_3U
age_restriction_02
age_restriction_34
age_restriction_03


Residual by Regressors for handle
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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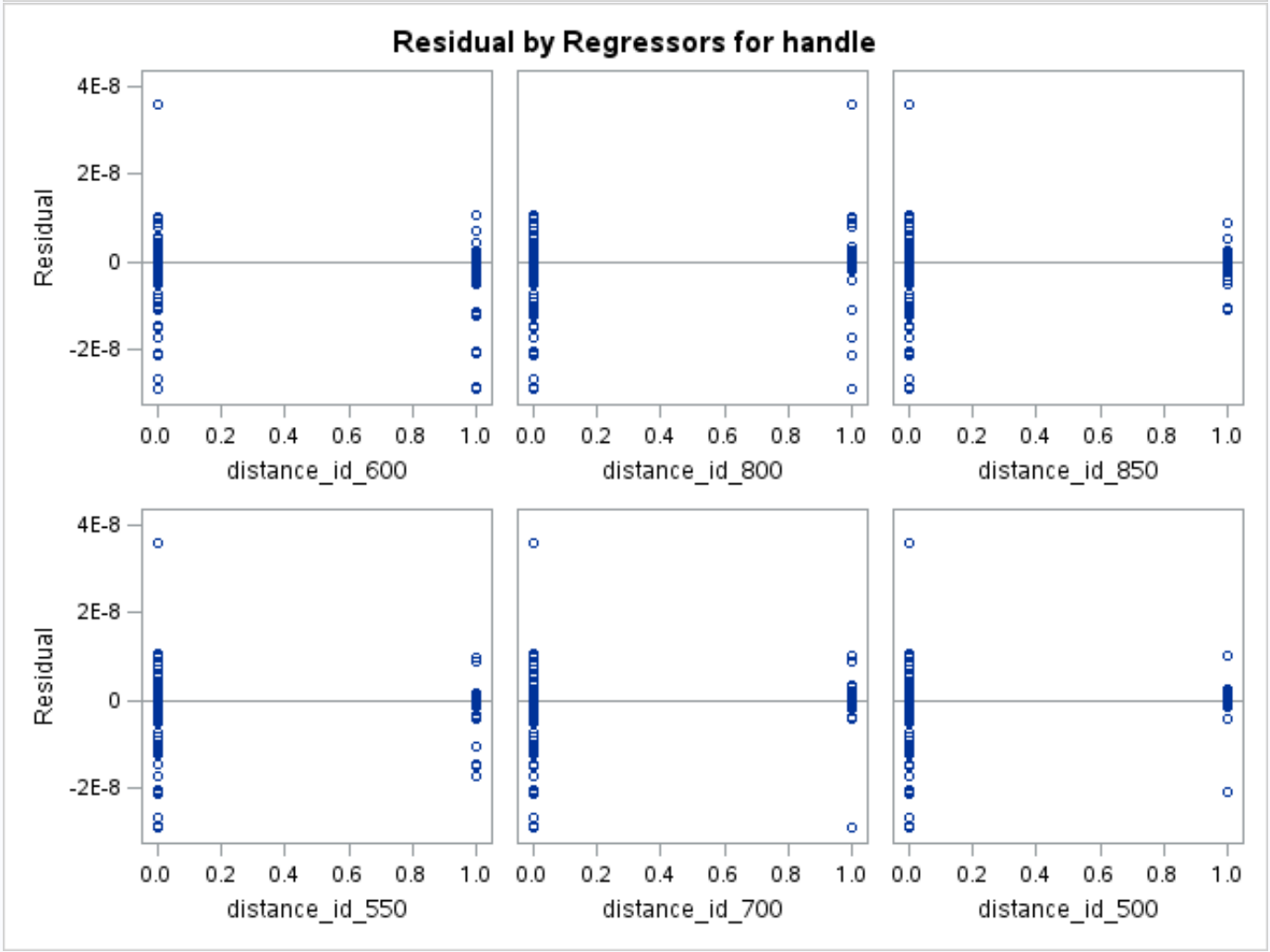
age_restriction_45
age_restriction_4U
sex_restriction_B
sex_restriction_F
stakes_indicator_N


Residual by Regressors for handle
Residual
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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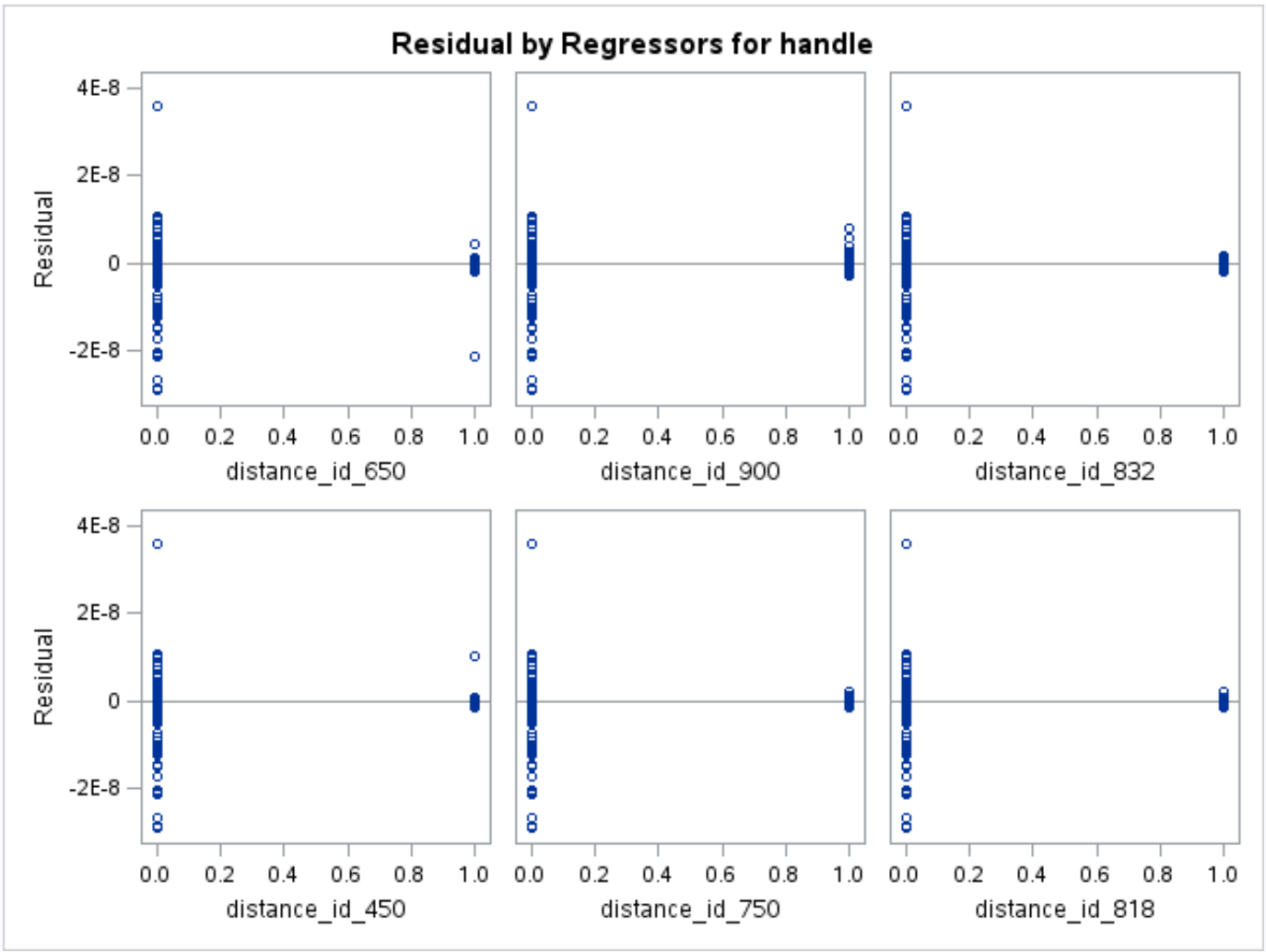
distance_id_800
distance_id_850
distance_id_550
distance_id_700
distance_id_500


Residual by Regressors for handle
Residual
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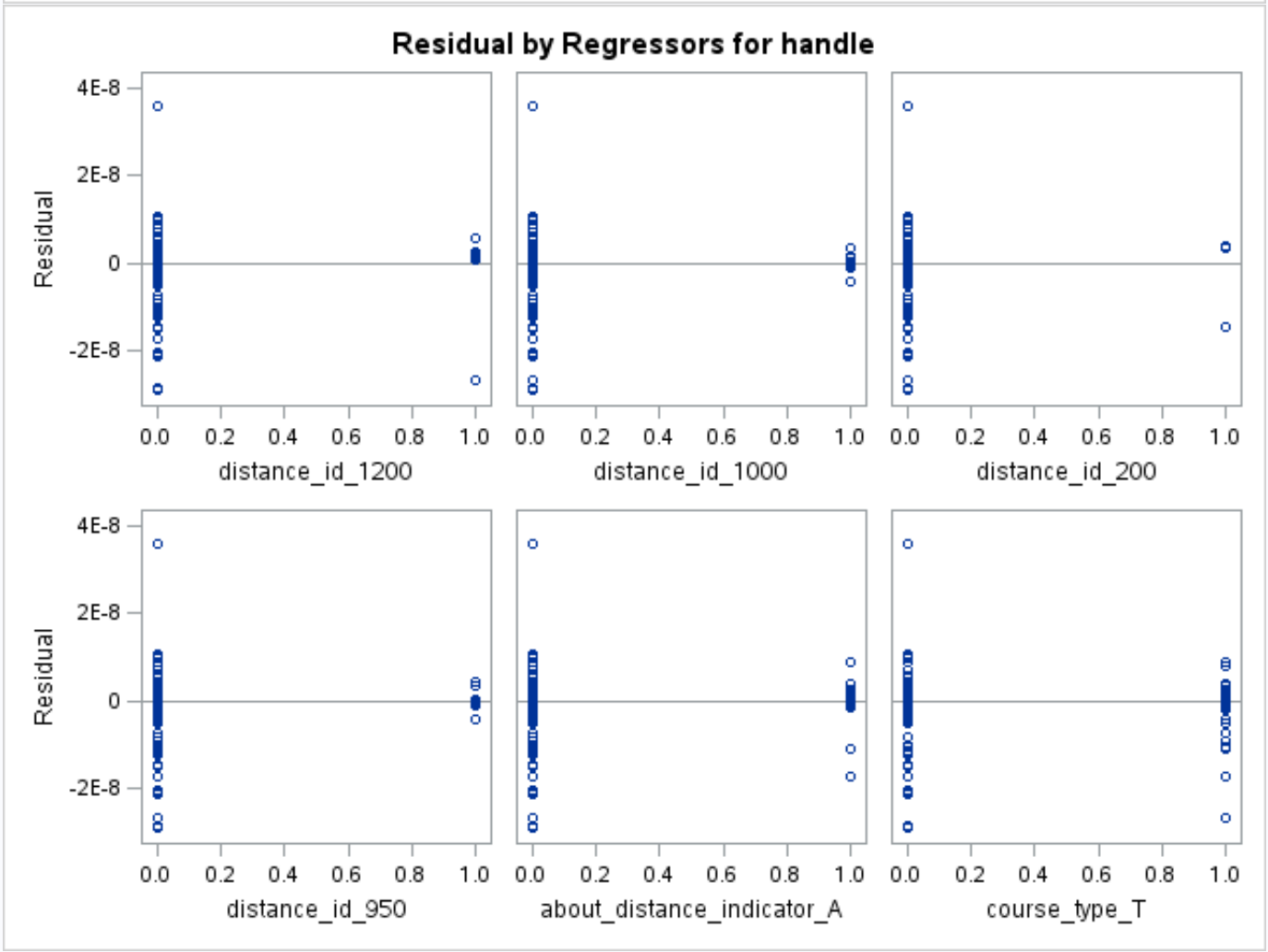
2E-8
0
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
distance_id_650
distance_id_900
distance_id_832
distance_id_450
distance_id_750
distance_id_818


Residual by Regressors for handle
Residual
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2E-8
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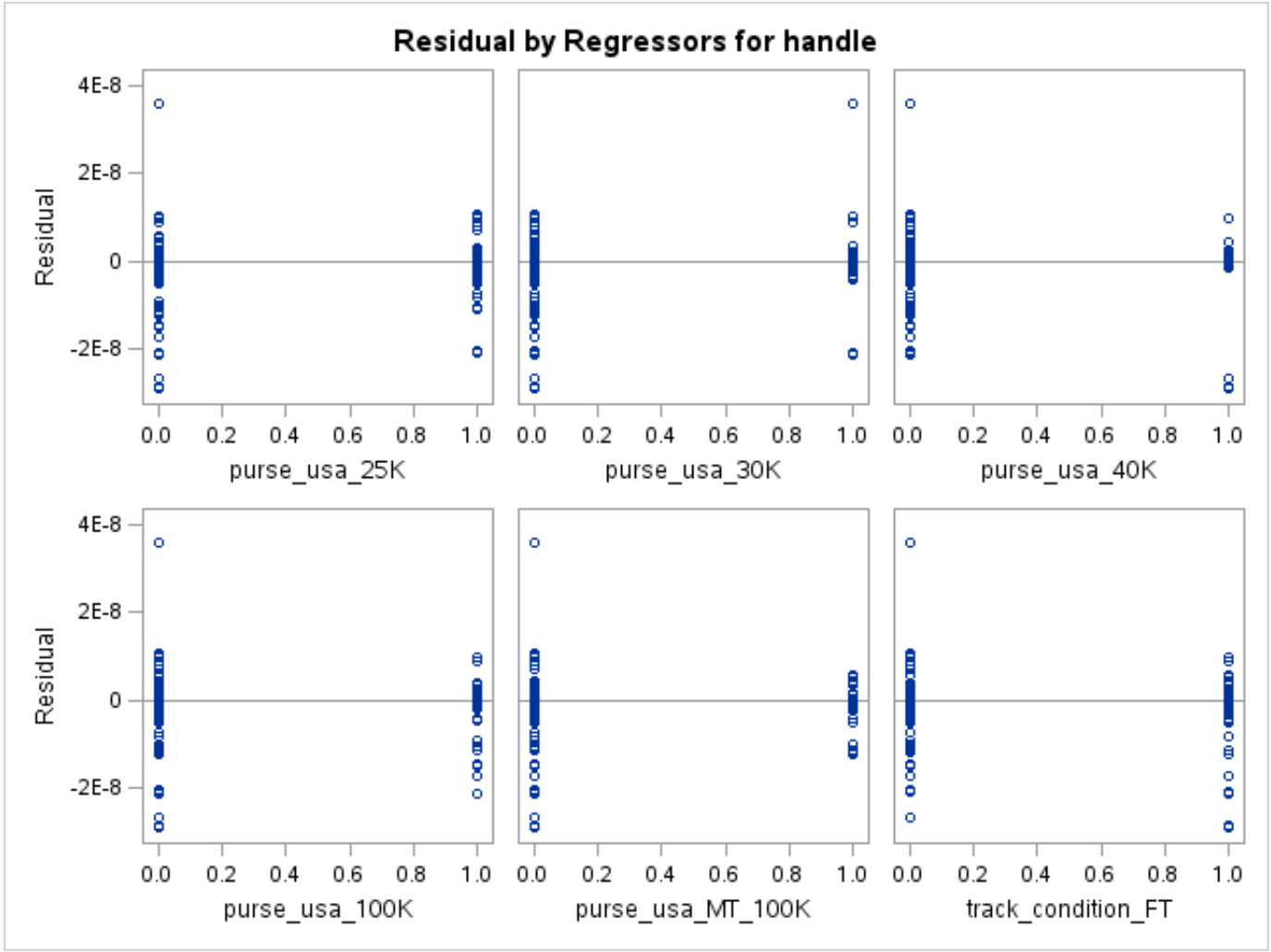
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
distance_id_1200
distance_id_1000
distance_id_200
distance_id_950
about_distance_indicator_A
course_type_T


Residual by Regressors for handle
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2E-8
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-2E-8
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0.2
0.4
0.6
0.8
1.0
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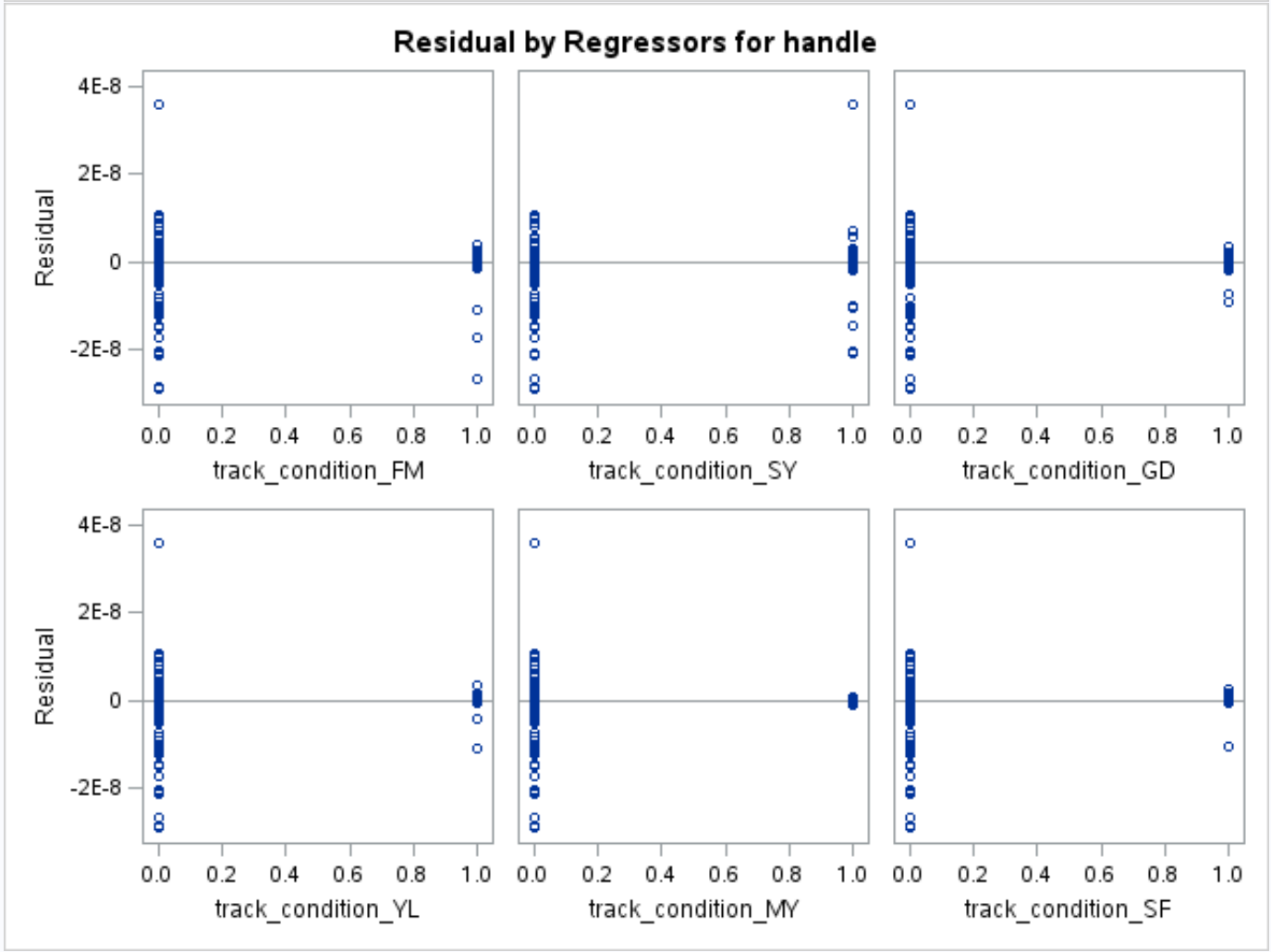
purse_usa_30K
purse_usa_40K
purse_usa_100K
purse_usa_MT_100K
track_condition_FT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-2E-8
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0.2
0.4
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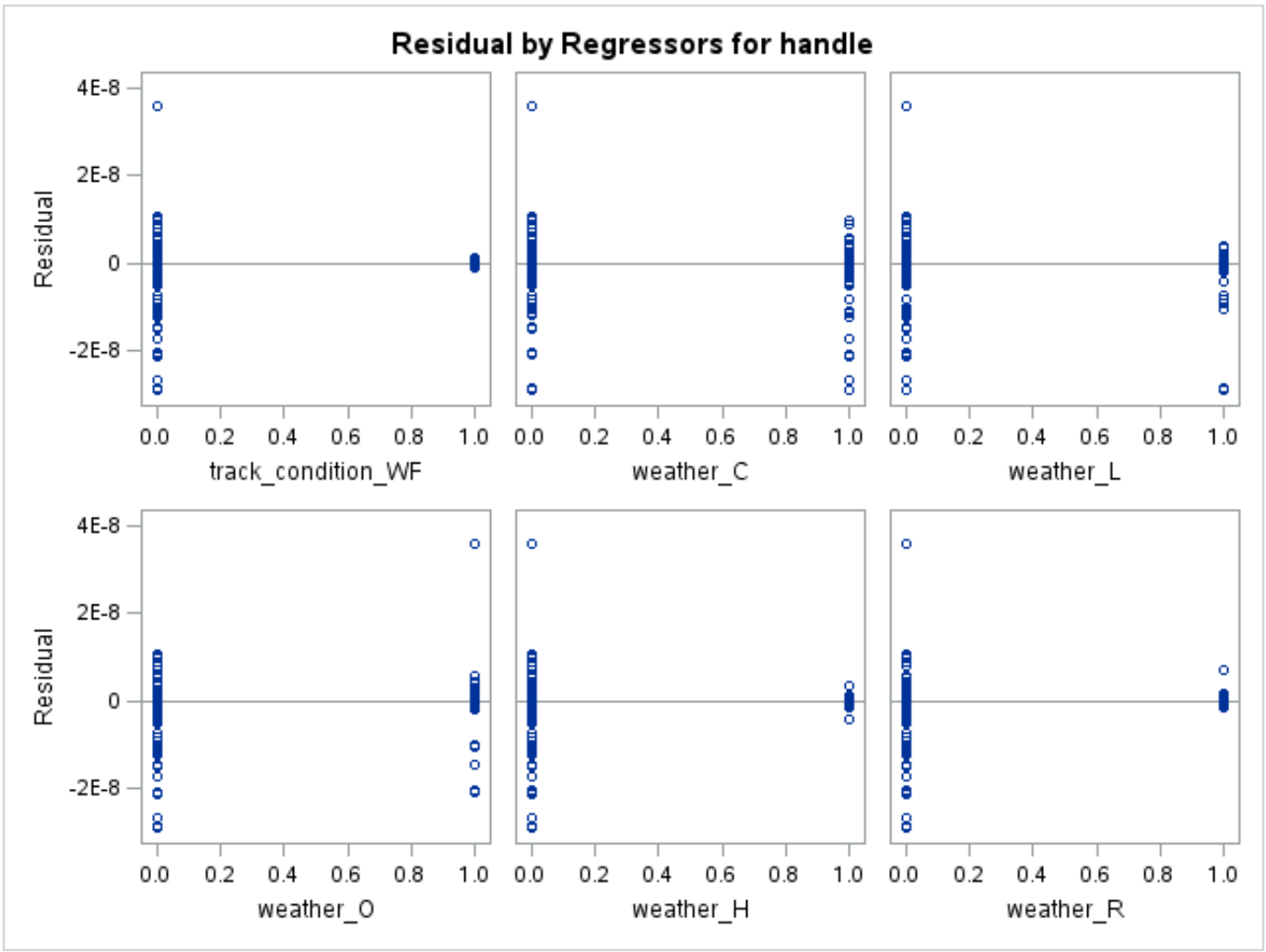
track_condition_SY
track_condition_GD
track_condition_YL
track_condition_MY
track_condition_SF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1.0
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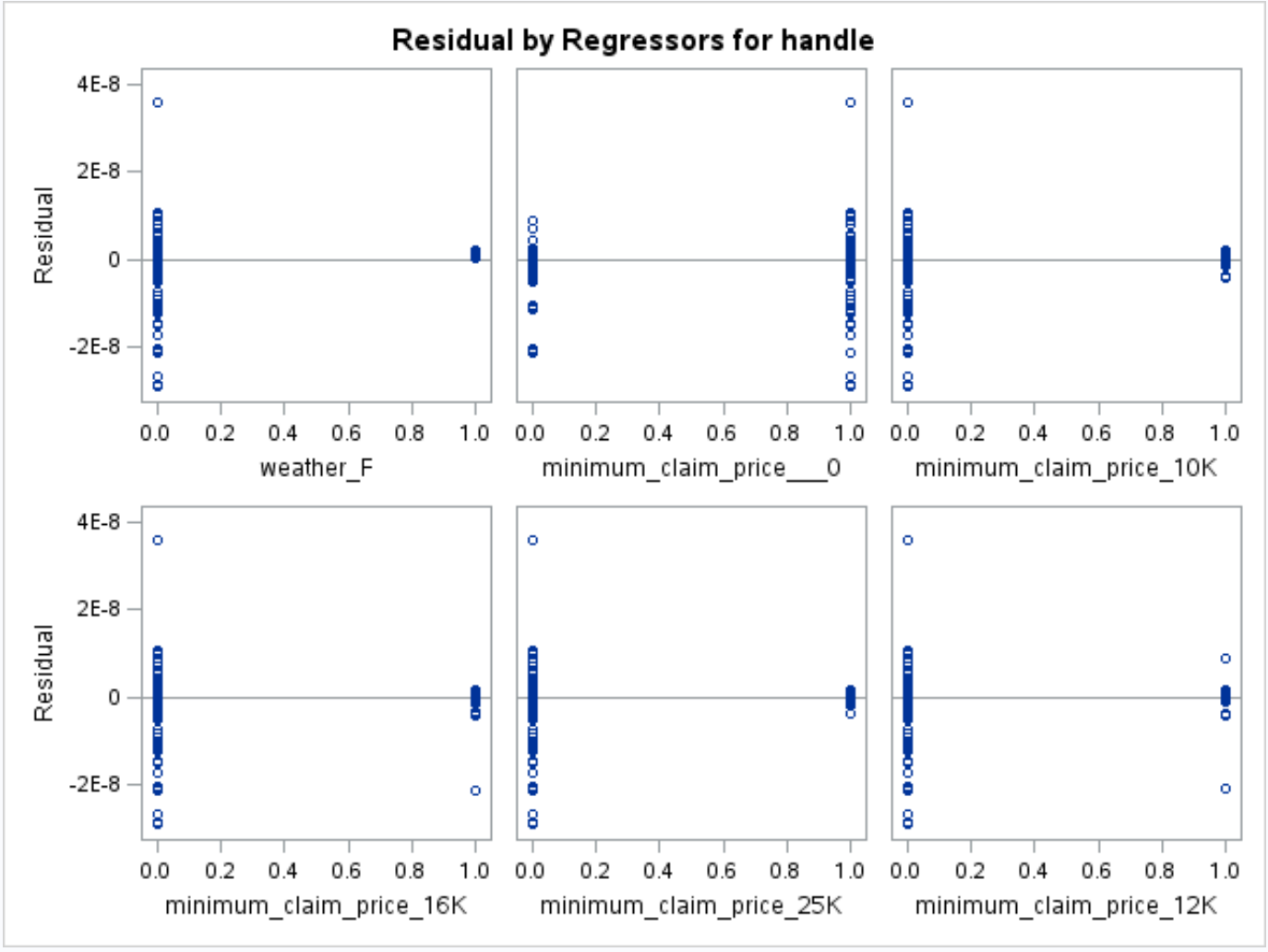
weather_C
weather_L
weather_O
weather_H
weather_R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-2E-8
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0.2
0.4
0.6
0.8
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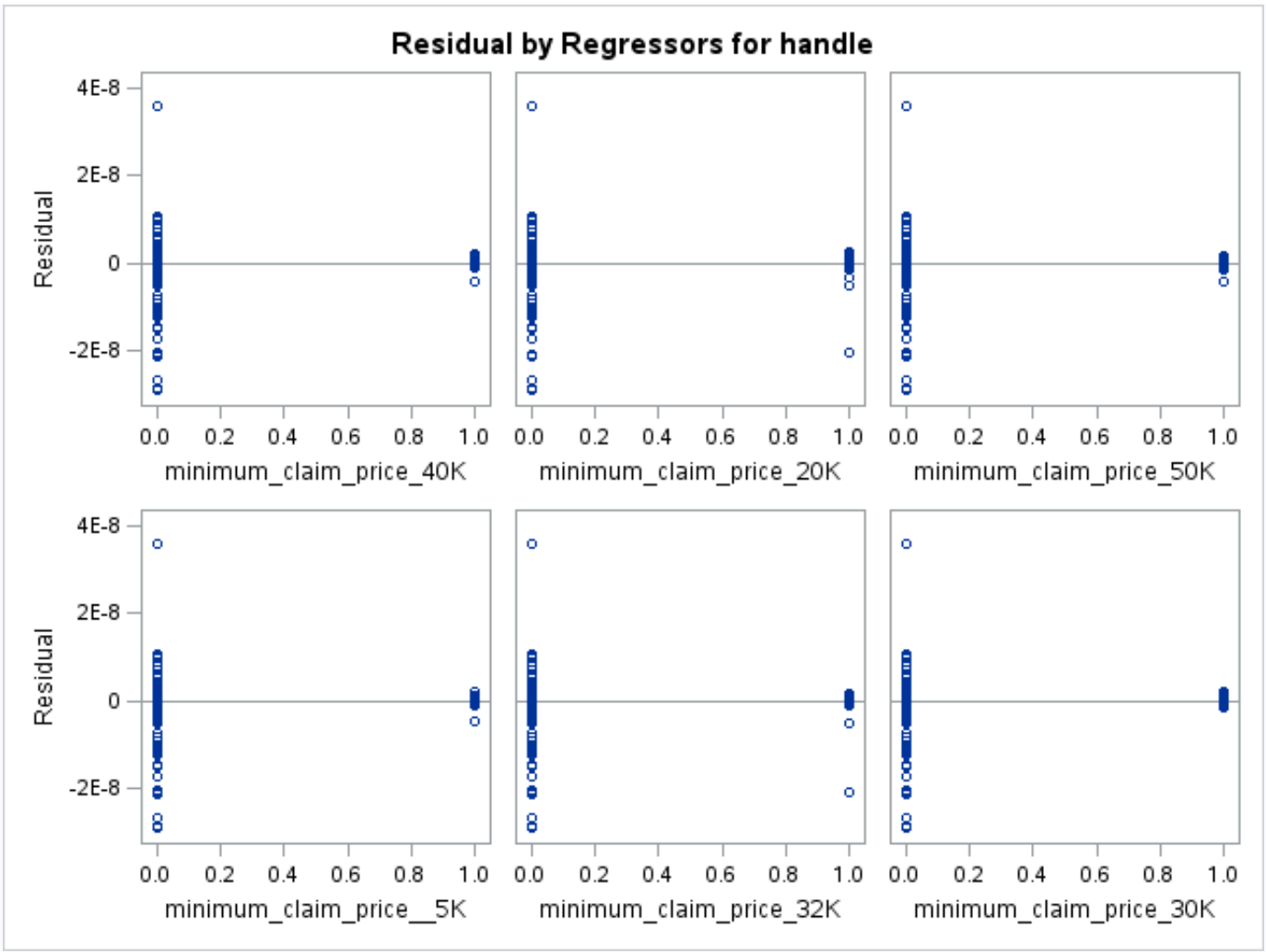
minimum_claim_price_16K
minimum_claim_price_25K
minimum_claim_price_12K


Residual by Regressors for handle
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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minimum_claim_price_20K
minimum_claim_price_50K
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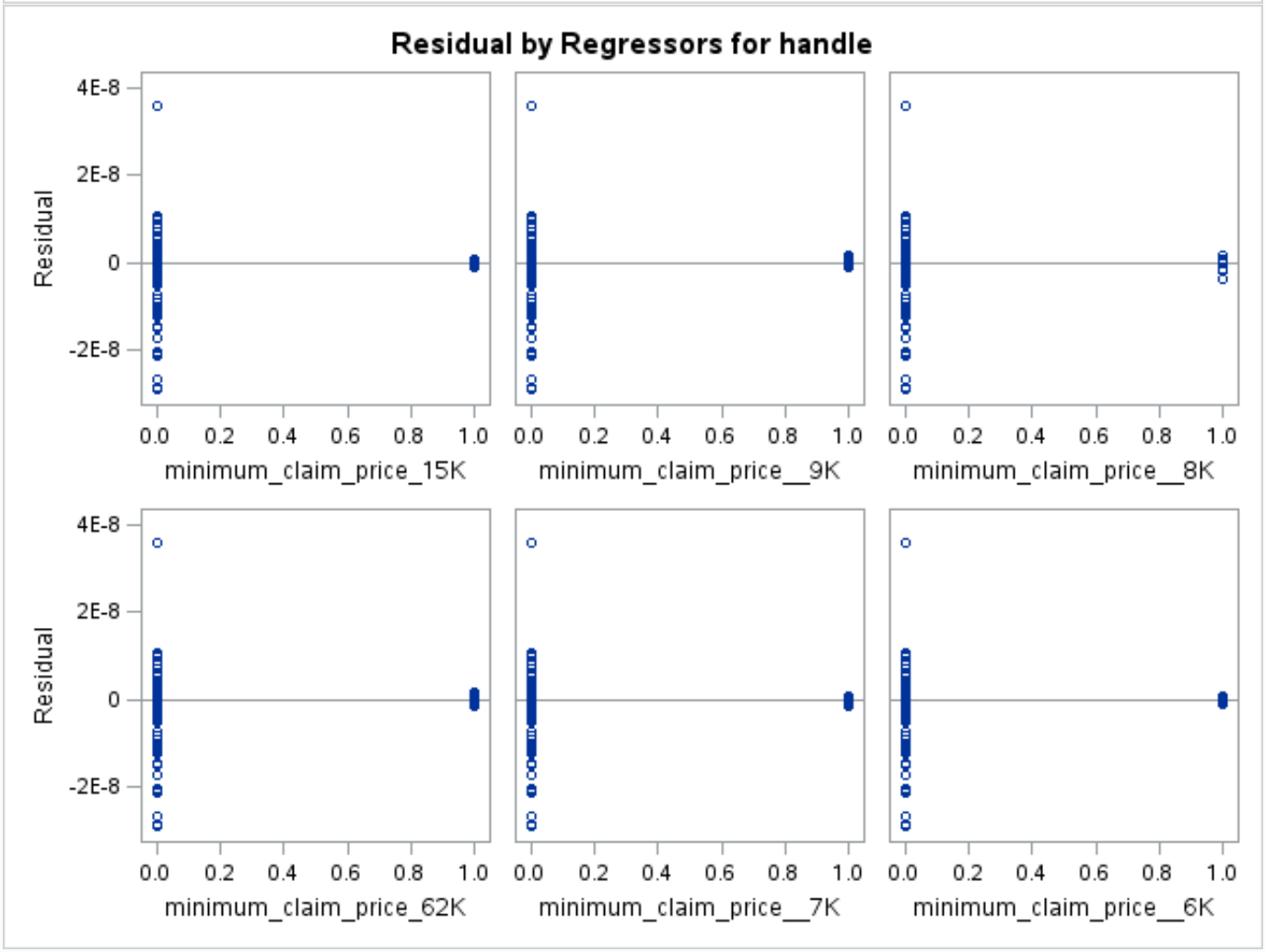
minimum_claim_price_32K
minimum_claim_price_30K


Residual by Regressors for handle
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2E-8
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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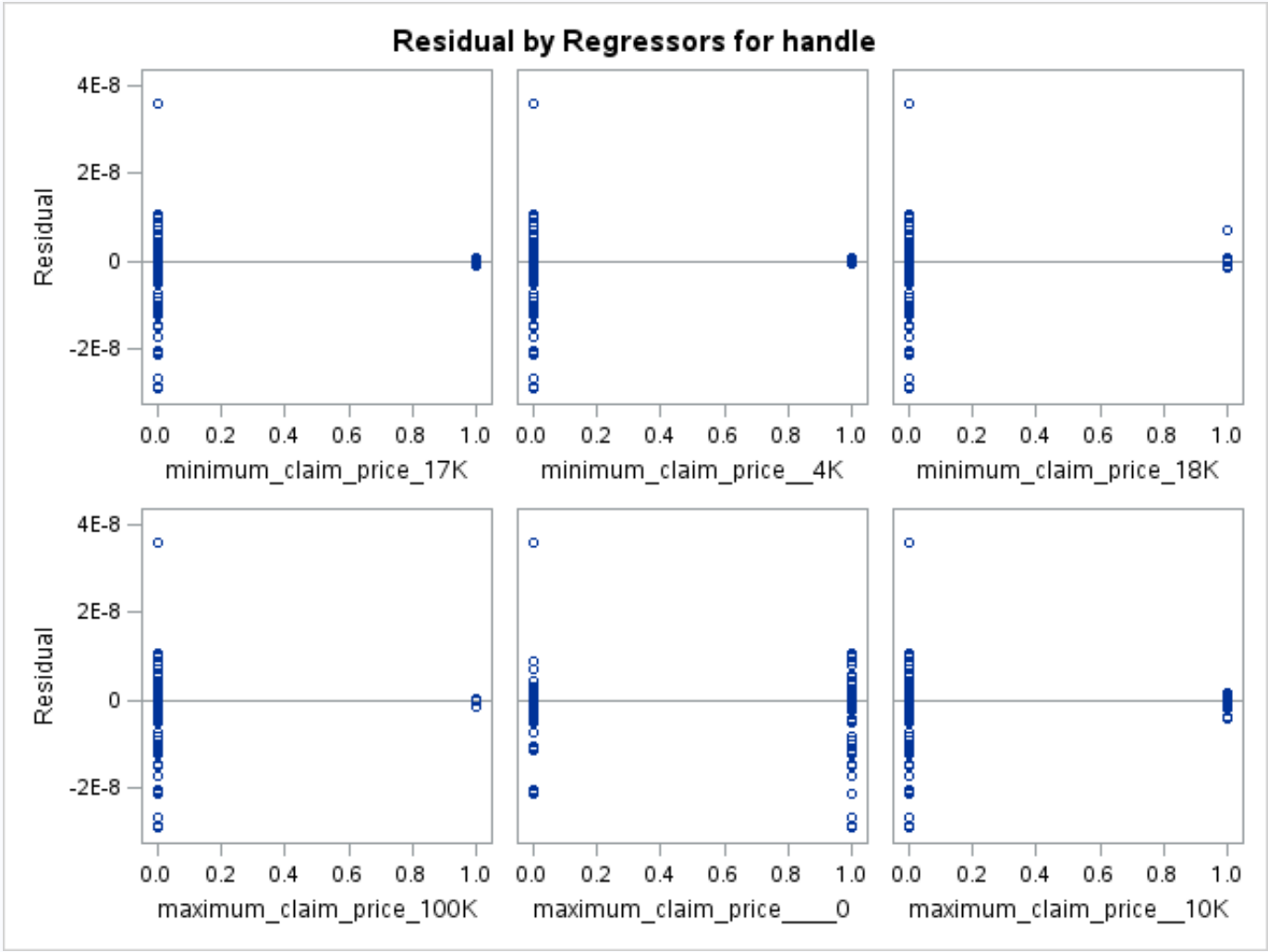
minimum_claim_price__9K
minimum_claim_price__8K
minimum_claim_price_62K
minimum_claim_price__7K
minimum_claim_price__6K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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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minimum_claim_price__4K
minimum_claim_price_18K
maximum_claim_price_100K
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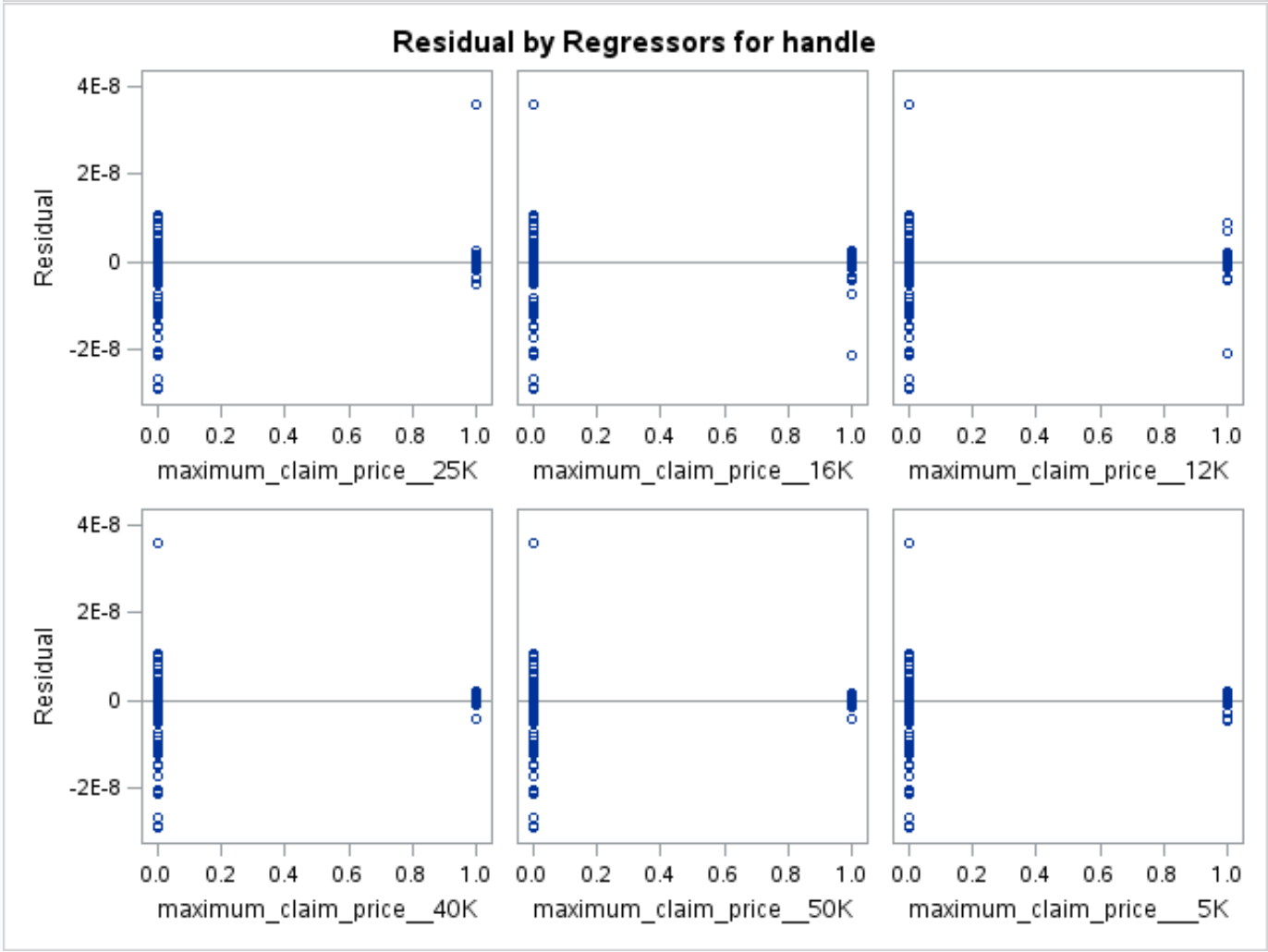
maximum_claim_price__10K


Residual by Regressors for handle
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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maximum_claim_price__16K
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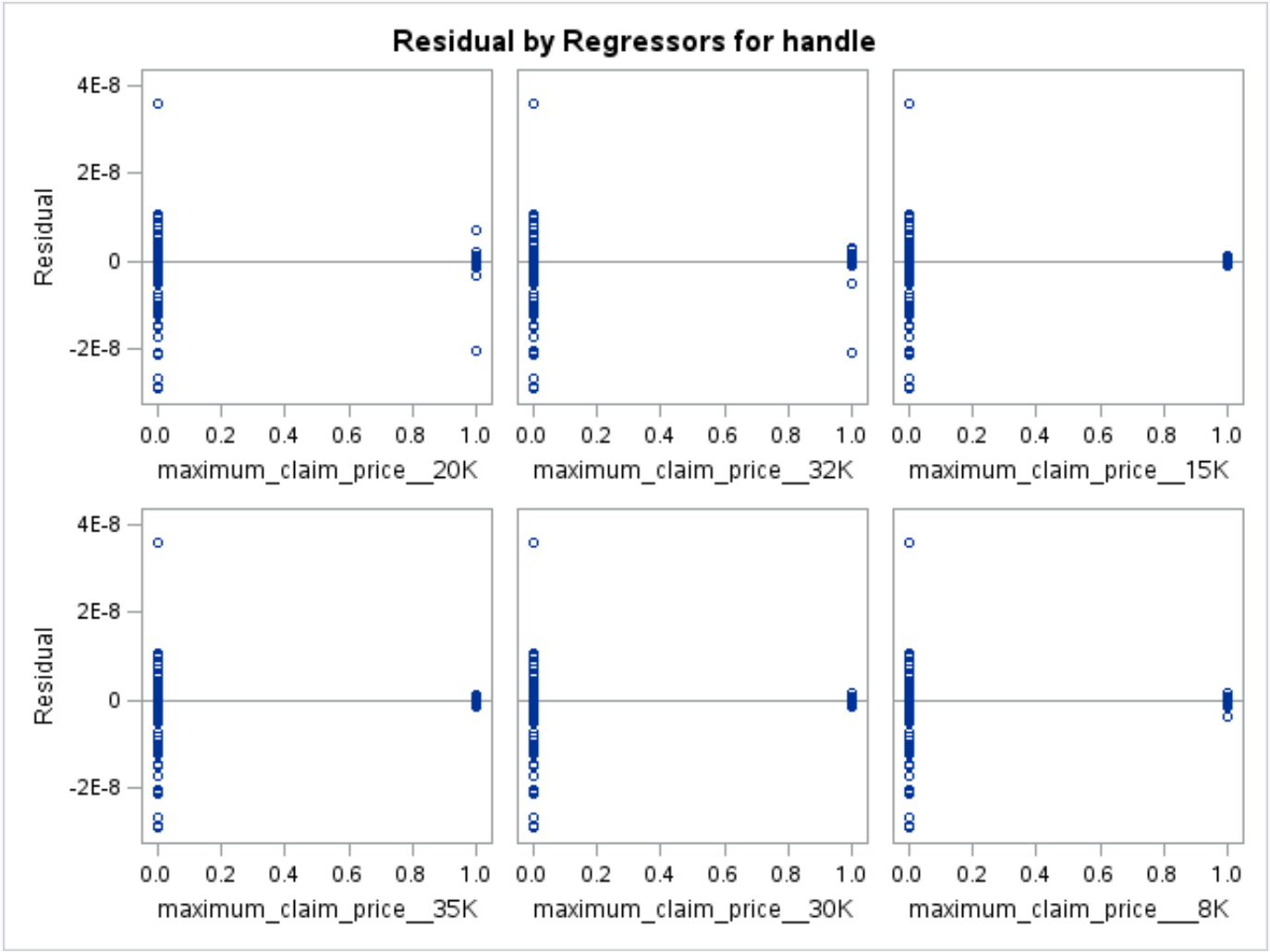
maximum_claim_price__40K
maximum_claim_price__50K
maximum_claim_price___5K


Residual by Regressors for handle
Residual
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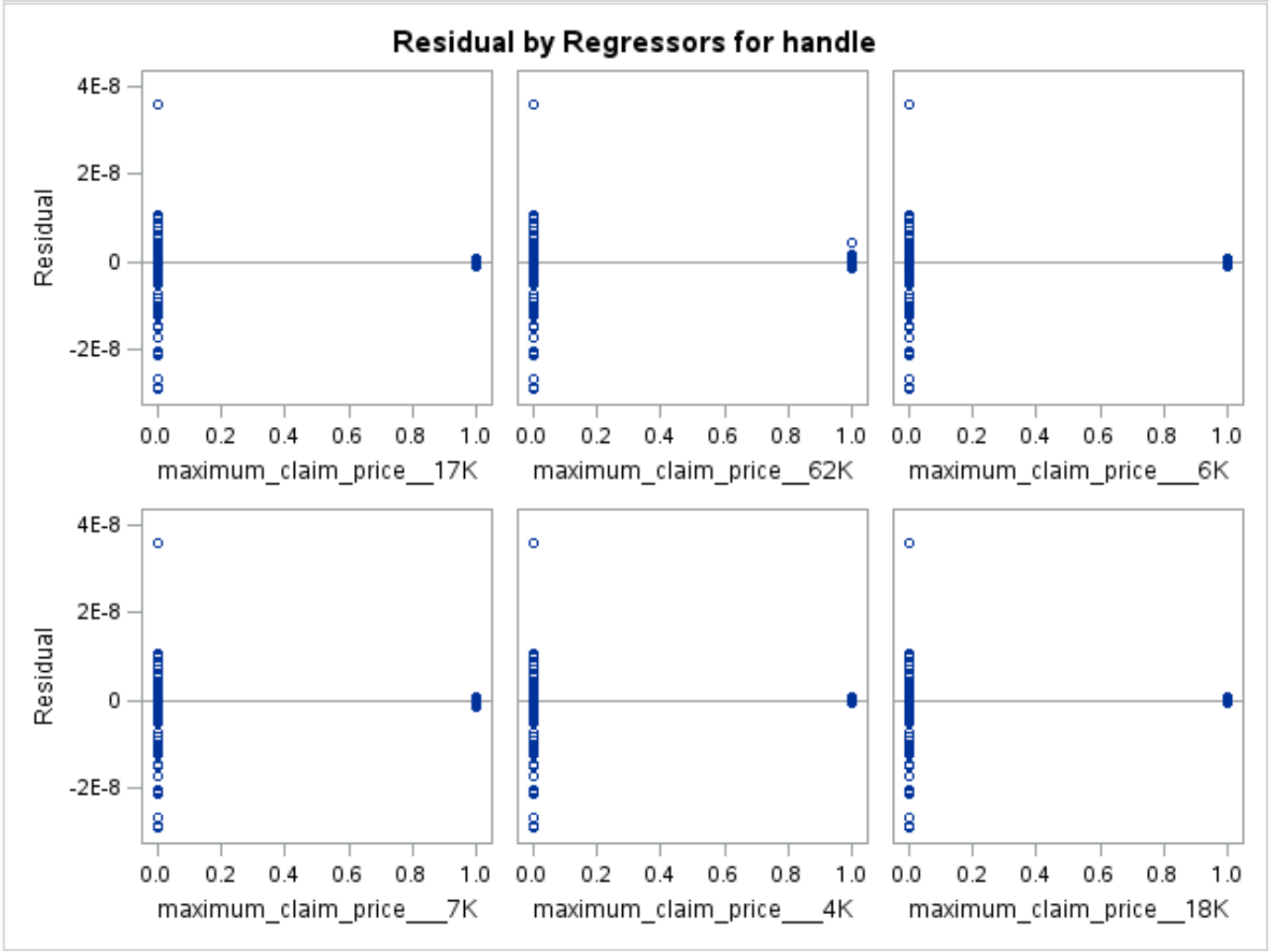
2E-8
0
-2E-8
0.0 0.2 0.4 0.6 0.8 1.0
maximum_claim_price__20K
maximum_claim_price__32K
maximum_claim_price__15K
maximum_claim_price__35K
maximum_claim_price__30K
maximum_claim_price___8K


Residual by Regressors for handle
Residual
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2E-8
0
-2E-8
0.0 0.2 0.4 0.6 0.8 1.0
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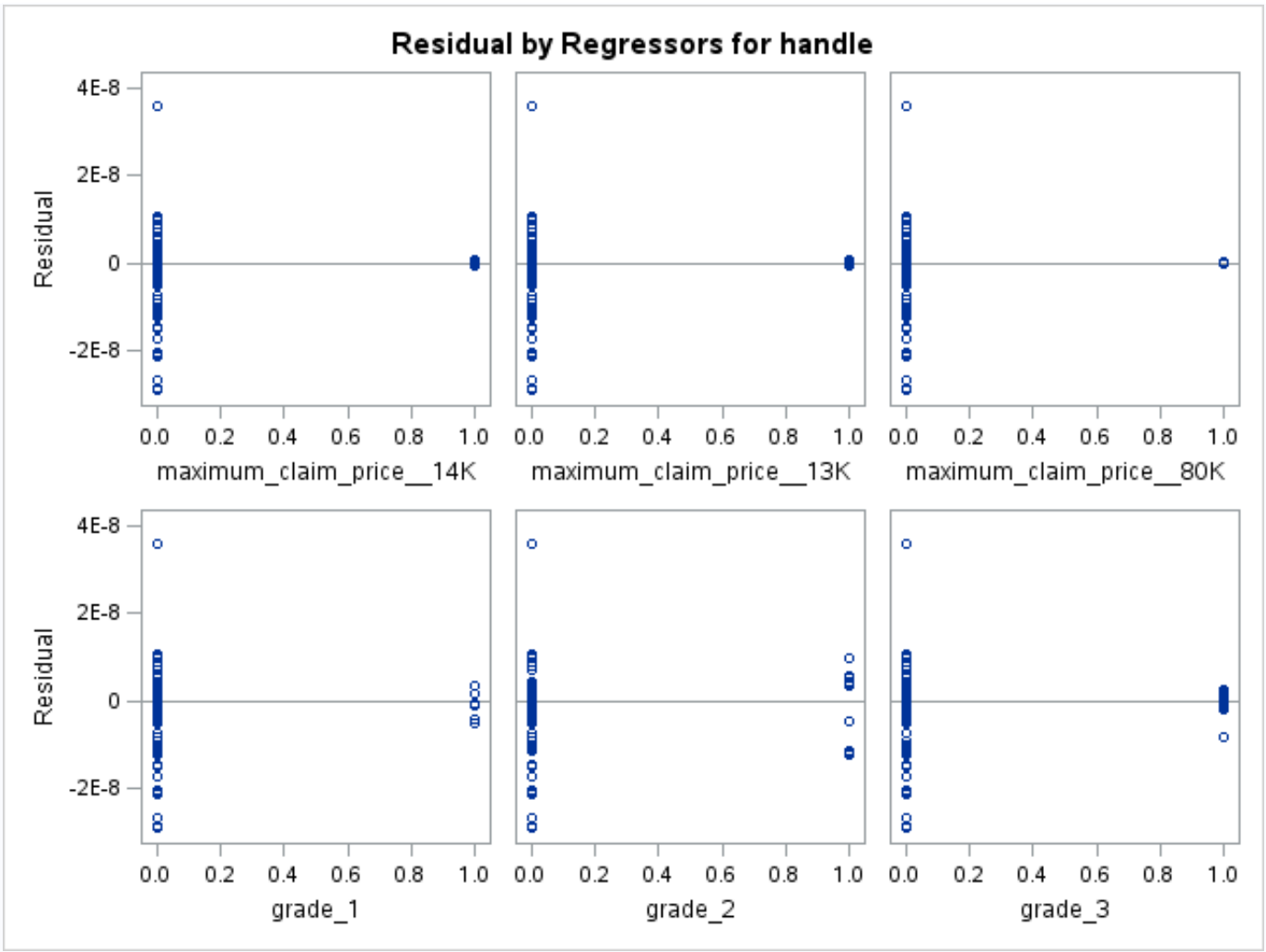
maximum_claim_price__62K
maximum_claim_price___6K
maximum_claim_price___7K
maximum_claim_price___4K
maximum_claim_price__18K


Residual by Regressors for handle
Residual
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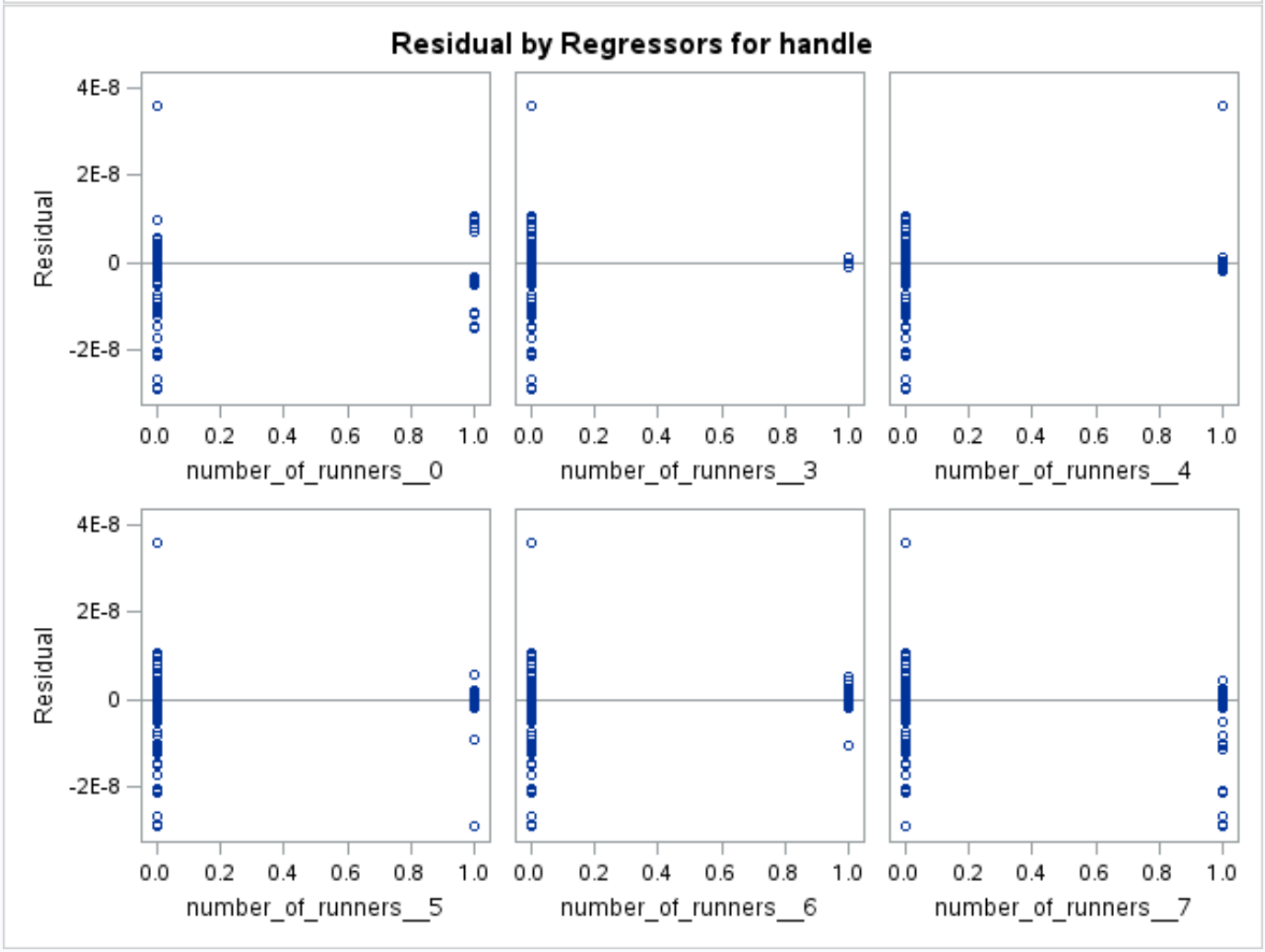
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
maximum_claim_price__14K
maximum_claim_price__13K
maximum_claim_price__80K
grade_1
grade_2
grade_3


Residual by Regressors for handle
Residual
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0
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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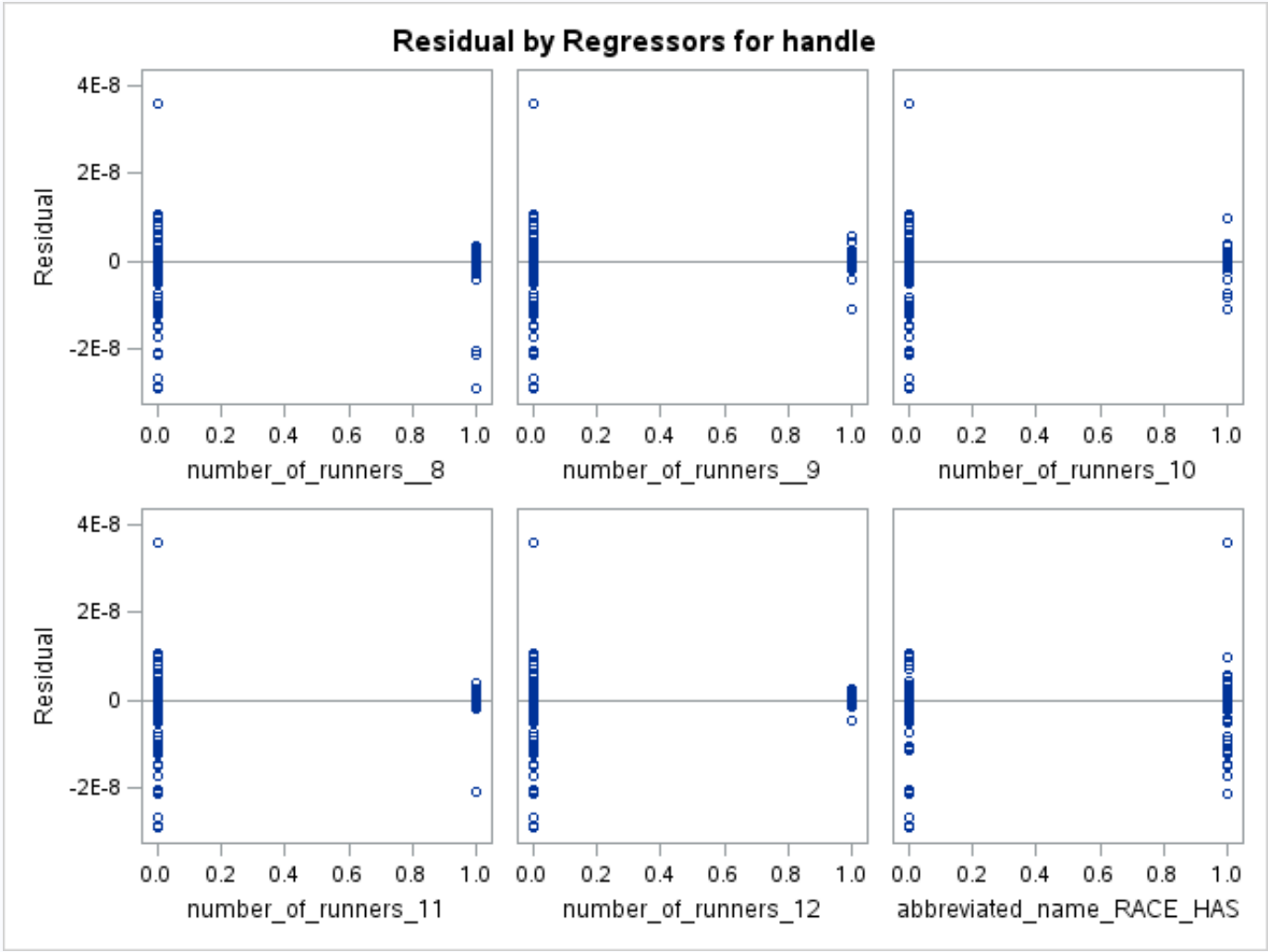
number_of_runners__3
number_of_runners__4
number_of_runners__5
number_of_runners__6
number_of_runners__7


Residual by Regressors for handle
Residual
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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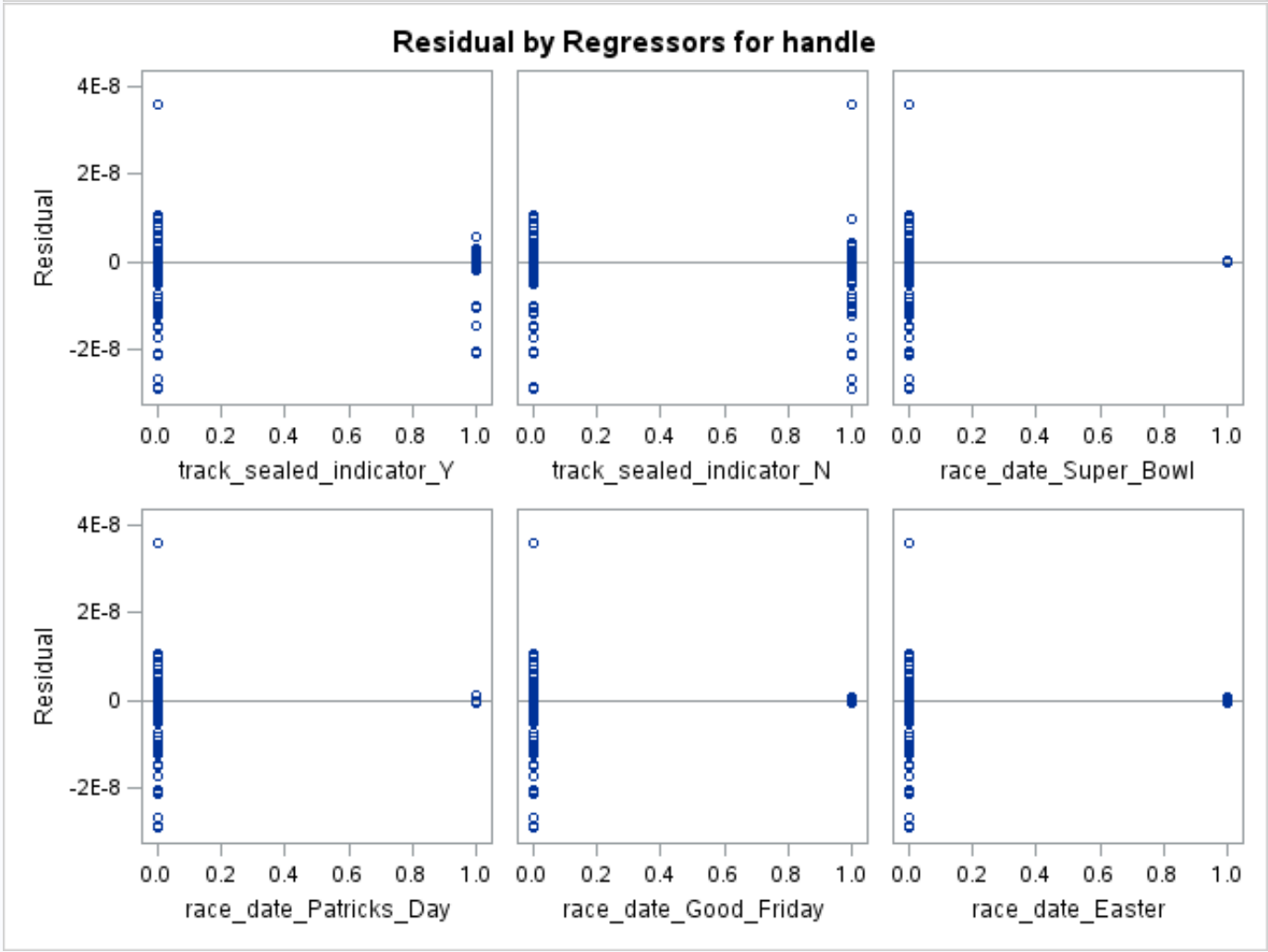
number_of_runners__9
number_of_runners_10
number_of_runners_11
number_of_runners_12
abbreviated_name_RACE_HAS


Residual by Regressors for handle
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-2E-8
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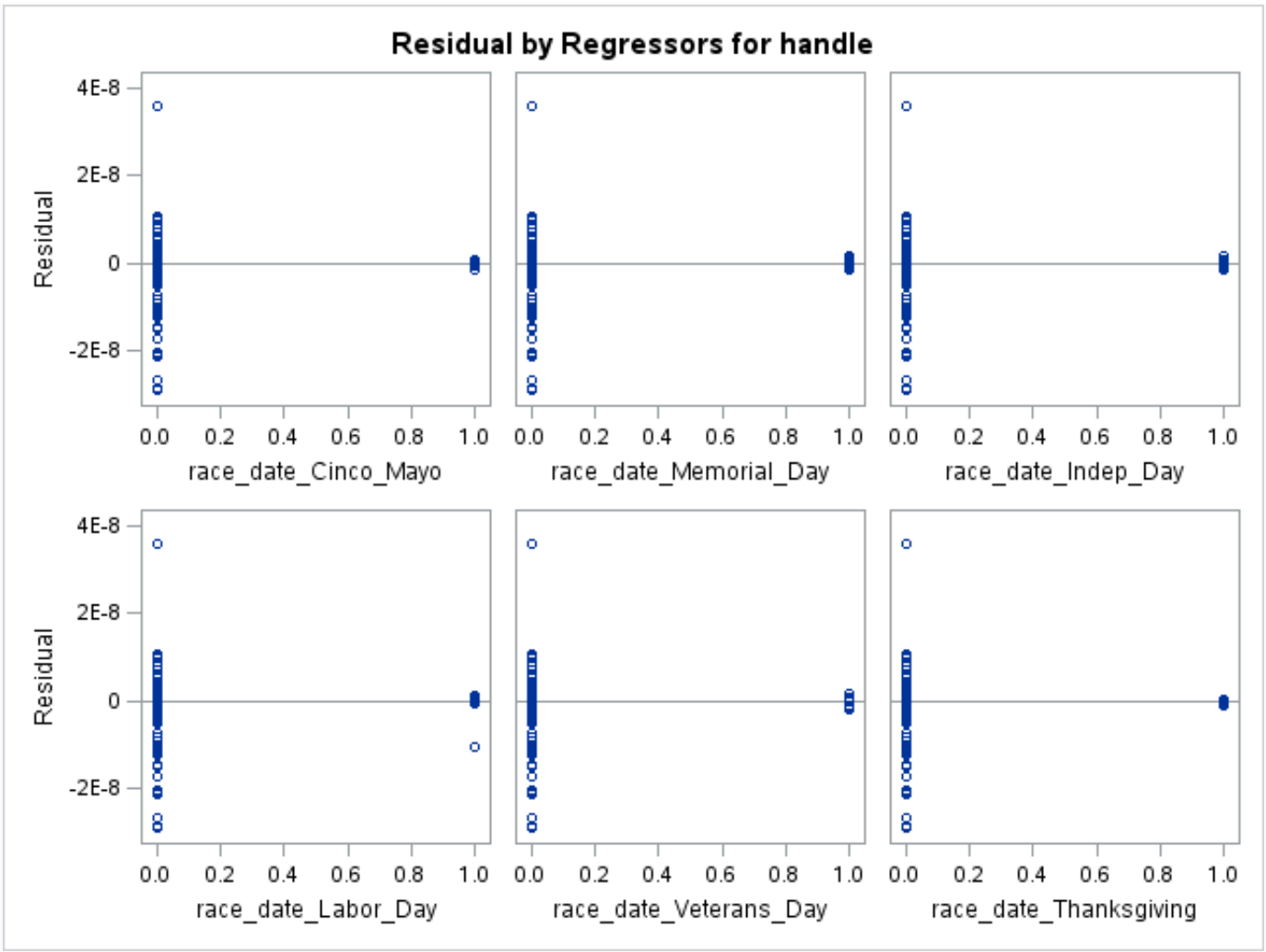
0.2
0.4
0.6
0.8
1.0
track_sealed_indicator_Y
track_sealed_indicator_N
race_date_Super_Bowl
race_date_Patricks_Day
race_date_Good_Friday
race_date_Easter


Residual by Regressors for handle
Residual
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-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
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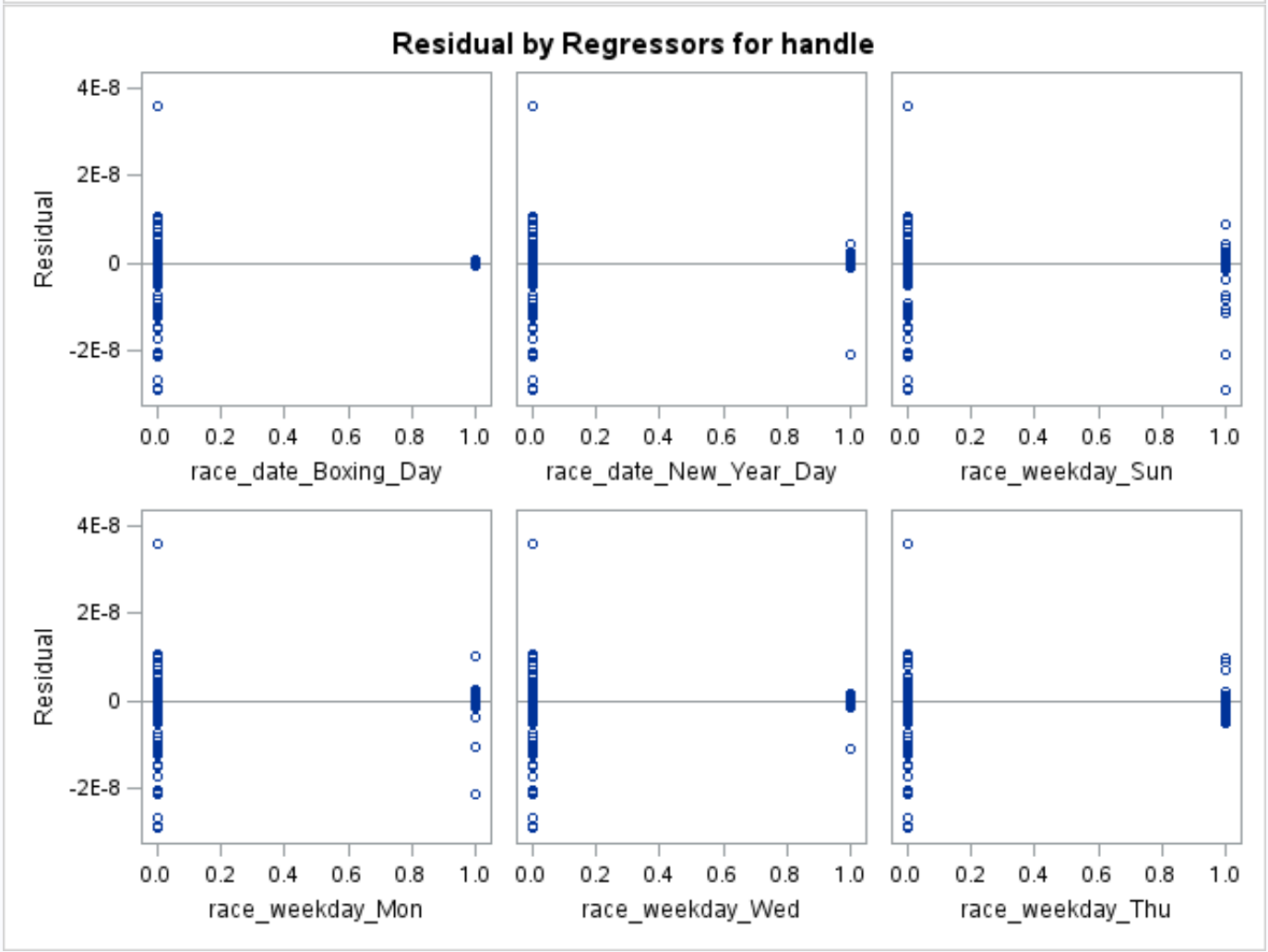
race_date_Memorial_Day
race_date_Indep_Day
race_date_Labor_Day
race_date_Veterans_Day
race_date_Thanksgiving


Residual by Regressors for handle
Residual
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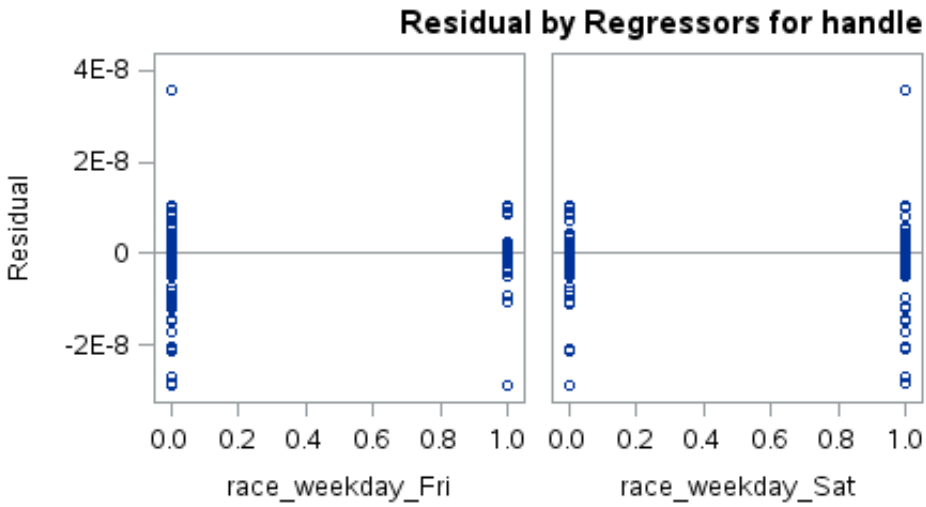
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
race_date_Boxing_Day
race_date_New_Year_Day
race_weekday_Sun
race_weekday_Mon
race_weekday_Wed
race_weekday_Thu


Residual by Regressors for handle
Residual
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2E-8
0
-2E-8
0.0
0.2
0.4
0.6
0.8
1.0
race_weekday_Fri
race_weekday_Sat