

A predictive model for runs scored in a baseball game

Literature Review - Proof of Concept Model

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load packages

```
# install.packages("ggplot2")
```

set working directory

```
# setwd(dirname(rstudioapi::getActiveDocumentContext())$path))  
# getwd()
```

open tor_games dataset

```
tor_games = read.csv("tor_games_20200609.csv") # read csv file  
tor_games
```

##	game_date	game_number	opp_team	opp_runs	tor_runs	game_park_id	tor_atbats
## 1	20190328	1	DET	2	0	TOR02	32
## 2	20190329	2	DET	0	6	TOR02	31
## 3	20190330	3	DET	0	3	TOR02	28
## 4	20190331	4	DET	4	3	TOR02	39
## 5	20190401	5	BAL	6	5	TOR02	31
## 6	20190402	6	BAL	2	1	TOR02	31
## 7	20190403	7	BAL	3	5	TOR02	31
## 8	20190404	8	CLE	4	1	CLE08	30
## 9	20190405	9	CLE	3	2	CLE08	30
## 10	20190406	10	CLE	7	2	CLE08	37
## 11	20190407	11	CLE	3	1	CLE08	29
## 12	20190409	12	BOS	5	7	BOS07	35
## 13	20190411	13	BOS	7	6	BOS07	31
## 14	20190412	14	TBA	11	7	TOR02	35
## 15	20190413	15	TBA	1	3	TOR02	28
## 16	20190414	16	TBA	8	4	TOR02	35
## 17	20190415	17	MIN	3	5	MIN04	35
## 18	20190416	18	MIN	5	6	MIN04	34
## 19	20190417	19	MIN	4	1	MIN04	33
## 20	20190418	20	MIN	4	7	MIN04	35
## 21	20190419	21	OAK	1	5	OAK01	33
## 22	20190420	22	OAK	1	10	OAK01	40

## 23	20190421	23	OAK	4	5	OAK01	37
## 24	20190423	24	SFN	7	6	TOR02	36
## 25	20190424	25	SFN	4	0	TOR02	28
## 26	20190426	26	OAK	2	4	TOR02	33
## 27	20190427	27	OAK	1	7	TOR02	34
## 28	20190428	28	OAK	4	5	TOR02	45
## 29	20190430	29	ANA	4	3	ANA01	31
## 30	20190501	30	ANA	6	3	ANA01	36
## 31	20190502	31	ANA	6	2	ANA01	32
## 32	20190503	32	TEX	0	1	ARL02	43
## 33	20190504	33	TEX	8	5	ARL02	32
## 34	20190505	34	TEX	10	2	ARL02	30
## 35	20190506	35	MIN	8	0	TOR02	29
## 36	20190507	36	MIN	3	0	TOR02	33
## 37	20190508	37	MIN	9	1	TOR02	29
## 38	20190510	38	CHA	3	4	TOR02	28
## 39	20190511	39	CHA	7	2	TOR02	32
## 40	20190512	40	CHA	5	1	TOR02	31
## 41	20190514	41	SFN	3	7	SF003	36
## 42	20190515	42	SFN	4	3	SF003	32
## 43	20190516	43	CHA	4	2	CHI12	29
## 44	20190517	44	CHA	2	10	CHI12	40
## 45	20190518	45	CHA	4	1	CHI12	17
## 46	20190519	46	CHA	2	5	CHI12	35
## 47	20190520	47	BOS	12	2	TOR02	31
## 48	20190521	48	BOS	3	10	TOR02	34
## 49	20190522	49	BOS	6	5	TOR02	50
## 50	20190523	50	BOS	8	2	TOR02	32
## 51	20190524	51	SDN	6	3	TOR02	30
## 52	20190525	52	SDN	19	4	TOR02	30
## 53	20190526	53	SDN	1	10	TOR02	40
## 54	20190527	54	TBA	8	3	STP01	30
## 55	20190528	55	TBA	3	1	STP01	32
## 56	20190529	56	TBA	4	3	STP01	42
## 57	20190531	57	COL	13	6	DEN02	34
## 58	20190601	58	COL	4	2	DEN02	32
## 59	20190602	59	COL	5	1	DEN02	33
## 60	20190604	60	NYA	3	4	TOR02	31
## 61	20190605	61	NYA	7	11	TOR02	35
## 62	20190606	62	NYA	6	2	TOR02	34
## 63	20190607	63	ARI	8	2	TOR02	31
## 64	20190608	64	ARI	6	0	TOR02	31
## 65	20190609	65	ARI	8	2	TOR02	34
## 66	20190611	66	BAL	4	2	BAL12	31
## 67	20190612	67	BAL	6	8	BAL12	38
## 68	20190613	68	BAL	3	12	BAL12	42
## 69	20190614	69	HOU	15	2	HOU03	32
## 70	20190615	70	HOU	7	2	HOU03	31
## 71	20190616	71	HOU	0	12	HOU03	40
## 72	20190617	72	ANA	10	5	TOR02	34
## 73	20190618	73	ANA	3	1	TOR02	29
## 74	20190619	74	ANA	11	6	TOR02	33
## 75	20190620	75	ANA	5	7	TOR02	36
## 76	20190621	76	BOS	7	5	BOS07	40

## 77	20190622	77	BOS	7	8	BOS07	37
## 78	20190623	78	BOS	1	6	BOS07	36
## 79	20190624	79	NYA	10	8	NYC21	40
## 80	20190625	80	NYA	4	3	NYC21	33
## 81	20190626	81	NYA	8	7	NYC21	36
## 82	20190628	82	KCA	2	6	TOR02	33
## 83	20190629	83	KCA	5	7	TOR02	29
## 84	20190630	84	KCA	7	6	TOR02	34
## 85	20190701	85	KCA	4	11	TOR02	39
## 86	20190702	86	BOS	10	6	TOR02	33
## 87	20190703	87	BOS	3	6	TOR02	32
## 88	20190704	88	BOS	8	7	TOR02	38
## 89	20190705	89	BAL	4	1	TOR02	31
## 90	20190706	90	BAL	8	1	TOR02	30
## 91	20190707	91	BAL	1	6	TOR02	32
## 92	20190712	92	NYA	4	0	NYC21	32
## 93	20190713	93	NYA	1	2	NYC21	35
## 94	20190714	94	NYA	4	2	NYC21	35
## 95	20190715	95	BOS	10	8	BOS07	40
## 96	20190716	96	BOS	4	10	BOS07	38
## 97	20190717	97	BOS	5	4	BOS07	32
## 98	20190718	98	BOS	5	0	BOS07	28
## 99	20190719	99	DET	1	12	DET05	42
## 100	20190720	100	DET	5	7	DET05	37
## 101	20190721	101	DET	4	3	DET05	34
## 102	20190722	102	CLE	7	3	TOR02	28
## 103	20190723	103	CLE	1	2	TOR02	35
## 104	20190724	104	CLE	4	0	TOR02	27
## 105	20190726	105	TBA	3	1	TOR02	30
## 106	20190727	106	TBA	9	10	TOR02	49
## 107	20190728	107	TBA	10	9	TOR02	39
## 108	20190729	108	KCA	3	7	KAN06	38
## 109	20190730	109	KCA	2	9	KAN06	38
## 110	20190731	110	KCA	1	4	KAN06	35
## 111	20190801	111	BAL	2	11	BAL12	41
## 112	20190802	112	BAL	2	5	BAL12	34
## 113	20190803	113	BAL	6	4	BAL12	35
## 114	20190804	114	BAL	6	5	BAL12	39
## 115	20190805	115	TBA	0	2	STP01	35
## 116	20190806	116	TBA	7	6	STP01	39
## 117	20190807	117	TBA	3	4	STP01	34
## 118	20190808	118	NYA	12	6	TOR02	40
## 119	20190809	119	NYA	2	8	TOR02	29
## 120	20190810	120	NYA	4	5	TOR02	29
## 121	20190811	121	NYA	1	0	TOR02	29
## 122	20190812	122	TEX	4	19	TOR02	43
## 123	20190813	123	TEX	0	3	TOR02	30
## 124	20190814	124	TEX	7	3	TOR02	34
## 125	20190816	125	SEA	3	7	TOR02	33
## 126	20190817	126	SEA	4	3	TOR02	34
## 127	20190818	127	SEA	7	0	TOR02	28
## 128	20190820	128	LAN	16	3	LOS03	30
## 129	20190821	129	LAN	2	1	LOS03	36
## 130	20190822	130	LAN	3	2	LOS03	31

## 131	20190823	131	SEA	7	4	SEA03	38
## 132	20190824	132	SEA	5	7	SEA03	32
## 133	20190825	133	SEA	3	1	SEA03	32
## 134	20190827	134	ATL	1	3	TOR02	30
## 135	20190828	135	ATL	9	4	TOR02	37
## 136	20190830	136	HOU	7	4	TOR02	33
## 137	20190831	137	HOU	4	6	TOR02	33
## 138	20190901	138	HOU	2	0	TOR02	27
## 139	20190902	139	ATL	6	3	ATL03	31
## 140	20190903	140	ATL	7	2	ATL03	30
## 141	20190905	141	TBA	6	4	STP01	34
## 142	20190906	142	TBA	5	0	STP01	29
## 143	20190907	143	TBA	5	3	STP01	32
## 144	20190908	144	TBA	8	3	STP01	33
## 145	20190910	145	BOS	3	4	TOR02	32
## 146	20190911	146	BOS	0	8	TOR02	32
## 147	20190912	147	BOS	7	4	TOR02	33
## 148	20190913	148	NYA	5	6	TOR02	44
## 149	20190914	149	NYA	13	3	TOR02	35
## 150	20190915	150	NYA	4	6	TOR02	31
## 151	20190917	151	BAL	5	8	BAL12	37
## 152	20190918	152	BAL	10	11	BAL12	42
## 153	20190919	153	BAL	4	8	BAL12	35
## 154	20190920	154	NYA	3	4	NYC21	33
## 155	20190921	155	NYA	7	2	NYC21	33
## 156	20190922	156	NYA	8	3	NYC21	36
## 157	20190923	157	BAL	10	11	TOR02	52
## 158	20190924	158	BAL	11	4	TOR02	33
## 159	20190925	159	BAL	2	3	TOR02	28
## 160	20190927	160	TBA	6	2	TOR02	31
## 161	20190928	161	TBA	1	4	TOR02	29
## 162	20190929	162	TBA	3	8	TOR02	35

##	tor_hits	tor_doubles	tor_triples	tor_homeruns	tor_rbi	tor_walks
## 1	2	0	0	0	0	1
## 2	7	0	1	0	5	3
## 3	6	2	0	1	3	4
## 4	8	2	0	1	3	1
## 5	6	1	1	2	5	2
## 6	6	0	0	1	1	4
## 7	10	3	0	2	4	2
## 8	3	1	0	0	1	8
## 9	3	1	0	1	2	3
## 10	10	4	0	1	2	1
## 11	3	2	0	0	1	2
## 12	10	2	0	0	5	2
## 13	8	0	0	3	6	5
## 14	9	3	0	1	6	4
## 15	5	2	0	0	3	3
## 16	8	2	0	2	4	4
## 17	11	4	0	1	5	2
## 18	9	1	0	0	6	6
## 19	8	0	0	0	1	1
## 20	9	1	0	3	7	1
## 21	7	3	0	1	5	3

## 22	15	3	0	3	10	3
## 23	13	2	0	1	5	2
## 24	9	1	1	2	6	2
## 25	2	0	0	0	0	2
## 26	8	1	0	2	4	1
## 27	12	4	0	0	6	5
## 28	11	2	0	2	5	2
## 29	5	1	0	1	2	3
## 30	6	1	0	2	3	1
## 31	6	3	0	0	2	3
## 32	11	1	0	0	0	4
## 33	9	1	1	0	5	5
## 34	6	2	0	1	2	3
## 35	3	0	0	0	0	2
## 36	6	1	0	0	0	0
## 37	2	0	0	1	1	2
## 38	4	1	0	2	4	7
## 39	8	2	1	1	2	3
## 40	4	1	0	0	1	1
## 41	10	2	0	2	7	6
## 42	5	2	0	0	2	3
## 43	2	0	0	1	1	4
## 44	15	4	0	3	9	6
## 45	3	1	0	0	1	2
## 46	8	0	0	3	5	2
## 47	3	0	0	1	2	1
## 48	11	1	0	3	10	5
## 49	11	3	0	3	5	3
## 50	5	3	0	1	2	0
## 51	3	0	0	2	3	1
## 52	4	0	0	2	4	2
## 53	17	3	0	4	10	1
## 54	4	1	0	2	3	5
## 55	6	2	0	0	1	2
## 56	12	3	0	1	3	5
## 57	11	2	0	2	6	5
## 58	4	2	0	1	2	3
## 59	6	0	0	0	1	4
## 60	8	1	0	2	4	2
## 61	10	2	0	4	10	6
## 62	8	1	0	1	1	0
## 63	5	0	0	1	1	2
## 64	5	0	1	0	0	3
## 65	7	3	0	1	2	1
## 66	5	1	0	1	2	4
## 67	10	3	0	1	7	6
## 68	17	3	0	3	12	4
## 69	5	1	0	0	2	2
## 70	6	0	0	0	2	2
## 71	14	3	1	5	12	4
## 72	8	0	0	3	5	3
## 73	3	0	0	1	1	0
## 74	6	2	0	2	6	7
## 75	12	3	0	4	7	6

## 76	11	0	0	1	5	5
## 77	10	0	0	2	6	5
## 78	10	4	0	1	5	5
## 79	14	3	0	2	8	2
## 80	7	2	0	0	3	0
## 81	13	1	0	3	7	4
## 82	9	0	0	4	6	2
## 83	6	0	0	3	7	7
## 84	8	0	1	2	6	3
## 85	18	4	0	3	11	4
## 86	8	3	0	1	6	6
## 87	11	3	0	3	6	5
## 88	11	5	0	3	7	5
## 89	4	1	1	1	1	2
## 90	3	0	0	0	1	1
## 91	9	3	1	1	6	4
## 92	6	0	0	0	0	0
## 93	8	1	0	0	2	2
## 94	6	0	0	2	2	1
## 95	13	3	0	1	8	0
## 96	14	3	2	2	9	3
## 97	5	0	0	3	4	7
## 98	2	0	0	0	0	2
## 99	15	2	0	1	11	5
## 100	12	3	0	2	7	2
## 101	5	2	0	1	3	2
## 102	5	0	0	2	3	2
## 103	8	1	0	1	2	4
## 104	1	1	0	0	0	1
## 105	4	2	0	0	1	3
## 106	16	3	0	6	10	5
## 107	12	2	0	2	8	6
## 108	11	0	1	3	7	3
## 109	10	1	0	1	8	5
## 110	9	3	0	2	4	4
## 111	14	2	0	5	11	5
## 112	8	2	0	2	5	4
## 113	12	3	0	2	4	1
## 114	13	4	0	2	5	4
## 115	9	2	0	1	2	0
## 116	8	2	0	2	4	2
## 117	7	2	0	3	4	2
## 118	12	3	0	3	6	2
## 119	6	2	0	4	8	5
## 120	5	0	1	1	5	8
## 121	4	0	0	0	0	0
## 122	21	9	0	4	19	4
## 123	6	1	0	3	3	4
## 124	6	2	1	0	2	4
## 125	11	2	0	4	7	1
## 126	9	3	0	2	3	3
## 127	2	1	0	0	0	1
## 128	7	1	0	3	3	4
## 129	6	2	0	1	1	1

## 130	5	0	0	1	2	1
## 131	11	2	0	0	4	3
## 132	7	4	0	2	7	8
## 133	5	3	0	0	1	3
## 134	10	0	0	1	3	4
## 135	10	3	0	0	3	3
## 136	8	1	0	3	4	7
## 137	10	1	0	2	6	4
## 138	0	0	0	0	0	1
## 139	5	1	0	2	3	2
## 140	6	3	0	1	2	3
## 141	8	1	1	2	4	3
## 142	2	0	1	0	0	2
## 143	6	3	0	0	3	3
## 144	6	1	0	1	3	2
## 145	9	1	0	3	4	5
## 146	11	2	0	2	8	3
## 147	7	2	1	0	4	6
## 148	13	2	0	2	4	2
## 149	9	3	0	0	3	3
## 150	8	3	0	2	6	3
## 151	12	1	1	3	7	3
## 152	15	2	0	2	11	9
## 153	10	3	0	2	8	3
## 154	7	2	1	2	4	2
## 155	6	3	0	0	2	0
## 156	9	1	0	2	3	2
## 157	13	0	0	5	11	6
## 158	6	2	0	1	4	2
## 159	5	0	0	3	3	4
## 160	4	2	0	1	2	2
## 161	8	2	1	1	4	5
## 162	11	4	0	2	8	3
##	opp_pitcher_start_id	opp_pitcher_start_name	opp_pitcher_whip			
## 1	zimmj003	Jordan Zimmermann	1.518			
## 2	boydm001	Matt Boyd	1.232			
## 3	turns003	Spencer Turnbull	1.438			
## 4	moorm003	Matt Moore	1.316			
## 5	hessd001	David Hess	1.550			
## 6	cash001	Andrew Cashner	1.347			
## 7	karnn001	Nathan Karns	1.316			
## 8	bauet001	Trevor Bauer	1.249			
## 9	biebs001	Shane Bieber	1.056			
## 10	carrc003	Carlos Carrasco	1.350			
## 11	clevm001	Mike Clevinger	1.056			
## 12	salec001	Chris Sale	1.088			
## 13	eovan001	Nathan Eovaldi	1.592			
## 14	stanr002	Ryne Stanek	1.299			
## 15	snelb001	Blake Snell	1.271			
## 16	mortc002	Charlie Morton	1.087			
## 17	perem004	Martin Perez	1.520			
## 18	gibsk002	Kyle Gibson	1.444			
## 19	odorj001	Jake Odorizzi	1.208			
## 20	pinem001	Michael Pineda	1.158			

## 21	brooa001	Aaron Brooks	1.382
## 22	fierm001	Michael Fiers	1.189
## 23	andeb004	Brett Anderson	1.307
## 24	samaj001	Jeff Samardzija	1.110
## 25	pomed001	Drew Pomeranz	1.433
## 26	fierm001	Michael Fiers	1.189
## 27	andeb004	Brett Anderson	1.307
## 28	bassc001	Chris Bassitt	1.194
## 29	canng001	Griffin Canning	1.221
## 30	bardl001	Luke Bard	1.102
## 31	skagt001	Tyler Skaggs	1.275
## 32	minom001	Mike Minor	1.240
## 33	lynnl001	Lance Lynn	1.221
## 34	smyld001	Drew Smyly	1.588
## 35	perem004	Martin Perez	1.520
## 36	berrj001	Jose Berrios	1.224
## 37	gibsk002	Kyle Gibson	1.444
## 38	coved001	Dylan Covey	1.770
## 39	novai001	Ivan Nova	1.455
## 40	gioll001	Lucas Giolito	1.067
## 41	vincn001	Nick Vincent	1.335
## 42	andes002	Shaun Anderson	1.552
## 43	coved001	Dylan Covey	1.770
## 44	novai001	Ivan Nova	1.455
## 45	gioll001	Lucas Giolito	1.067
## 46	loper003	Reynaldo Lopez	1.457
## 47	pricd001	David Price	1.317
## 48	rodre004	Eduardo Rodriguez	1.329
## 49	porcr001	Rick Porcello	1.396
## 50	weber001	Ryan Weber	1.393
## 51	luccj001	Joey Lucchesi	1.225
## 52	quanc001	Cal Quantrill	1.301
## 53	erlir001	Robbie Erlin	1.579
## 54	chiry001	Yonny Chirinos	1.052
## 55	stanr002	Ryne Stanek	1.299
## 56	snelb001	Blake Snell	1.271
## 57	marqg001	German Marquez	1.201
## 58	grayj003	Jon Gray	1.353
## 59	senza001	Antonio Senzatela	1.755
## 60	tanam001	Masahiro Tanaka	1.242
## 61	paxtj001	James Paxton	1.285
## 62	happj001	J.A. Happ	1.297
## 63	kellm002	Merrill Kelly	1.316
## 64	greiz001	Zack Greinke	0.985
## 65	ray-r002	Robbie Ray	1.344
## 66	meanj001	John Means	1.135
## 67	hessd001	David Hess	1.550
## 68	ynoag001	Gabriel Ynoa	1.379
## 69	coleg001	Gerrit Cole	0.896
## 70	valdf001	Framber Valdez	1.681
## 71	peacb001	Brad Peacock	1.195
## 72	garcl005	Luis Garcia	1.516
## 73	skagt001	Tyler Skaggs	1.275
## 74	heana001	Andrew Heaney	1.293

## 75	suarj001	Jose Suarez	1.642
## 76	salec001	Chris Sale	1.088
## 77	johnb004	Brian Johnson	1.895
## 78	porcr001	Rick Porcello	1.396
## 79	sabac001	CC Sabathia	1.410
## 80	greec003	Chad Green	1.232
## 81	paxtj001	James Paxton	1.285
## 82	duffd001	Danny Duffy	1.313
## 83	bailh001	Homer Bailey	1.318
## 84	kellb003	Brad Keller	1.357
## 85	sparg001	Glenn Sparkman	1.507
## 86	pricd001	David Price	1.317
## 87	salec001	Chris Sale	1.088
## 88	velah001	Hector Velazquez	1.533
## 89	bundd001	Dylan Bundy	1.359
## 90	cash001	Andrew Cashner	1.347
## 91	wojca001	Asher Wojciechowski	1.315
## 92	germd001	Domingo German	1.147
## 93	happj001	J.A. Happ	1.297
## 94	tanam001	Masahiro Tanaka	1.242
## 95	porcr001	Rick Porcello	1.396
## 96	cash001	Andrew Cashner	1.347
## 97	rodre004	Eduardo Rodriguez	1.329
## 98	salec001	Chris Sale	1.088
## 99	zimmj003	Jordan Zimmermann	1.518
## 100	norrd002	Daniel Norris	1.332
## 101	alext001	Tyler Alexander	1.410
## 102	clevm001	Mike Clevinger	1.056
## 103	bauet001	Trevor Bauer	1.249
## 104	biebs001	Shane Bieber	1.056
## 105	castd002	Diego Castillo	1.246
## 106	kitta001	Andrew Kittredge	1.280
## 107	chiry001	Yonny Chirinos	1.052
## 108	kellb003	Brad Keller	1.357
## 109	montm002	Mike Montgomery	1.615
## 110	junij001	Jake Junis	1.428
## 111	wojca001	Asher Wojciechowski	1.315
## 112	brooa001	Aaron Brooks	1.382
## 113	bundd001	Dylan Bundy	1.359
## 114	yacaj001	Jimmy Yacabonis	1.829
## 115	mortc002	Charlie Morton	1.087
## 116	kitta001	Andrew Kittredge	1.280
## 117	mckab001	Brendan McKay	1.408
## 118	germd001	Domingo German	1.147
## 119	happj001	J.A. Happ	1.297
## 120	greec003	Chad Green	1.232
## 121	tanam001	Masahiro Tanaka	1.242
## 122	juraa001	Ariel Jurado	1.507
## 123	lynnl001	Lance Lynn	1.221
## 124	allak001	Kolby Allard	1.574
## 125	wislm001	Matt Wisler	1.409
## 126	mcclr001	Reggie McClain	1.316
## 127	kikuy001	Yusei Kikuchi	1.520
## 128	kersc001	Clayton Kershaw	1.044

## 129	buehw001	Walker Buehler	1.043
## 130	maedk001	Kenta Maeda	1.077
## 131	shefj001	Justus Sheffield	1.722
## 132	hernf002	Felix Hernandez	1.545
## 133	gonzm005	Marco Gonzales	1.310
## 134	sorom001	Mike Soroka	1.114
## 135	foltm001	Mike Foltyniewicz	1.248
## 136	milew001	Wade Miley	1.346
## 137	valdf001	Framber Valdez	1.681
## 138	verlj001	Justin Verlander	0.803
## 139	sorom001	Mike Soroka	1.114
## 140	foltm001	Mike Foltyniewicz	1.248
## 141	pruia001	Austin Pruitt	1.255
## 142	mckab001	Brendan McKay	1.408
## 143	mortc002	Charlie Morton	1.087
## 144	glast001	Tyler Glasnow	0.897
## 145	eovan001	Nathan Eovaldi	1.592
## 146	poynb001	Bobby Poyner	1.316
## 147	chacj001	Jhoulys Chacin	1.562
## 148	tanam001	Masahiro Tanaka	1.242
## 149	paxtj001	James Paxton	1.285
## 150	greec003	Chad Green	1.232
## 151	shepc001	Chandler Shepherd	1.316
## 152	bundd001	Dylan Bundy	1.359
## 153	ynoag001	Gabriel Ynoa	1.379
## 154	happj001	J.A. Happ	1.297
## 155	paxtj001	James Paxton	1.285
## 156	sevel001	Luis Severino	1.316
## 157	shepc001	Chandler Shepherd	1.316
## 158	bundd001	Dylan Bundy	1.359
## 159	ynoag001	Gabriel Ynoa	1.379
## 160	glast001	Tyler Glasnow	0.897
## 161	yarbr001	Ryan Yarbrough	0.999
## 162	snelb001	Blake Snell	1.271
##	tor_batting_1_id	tor_batting_1_name	tor_batting_1_pos
## 1	drurb001	Brandon Drury	5
## 2	drurb001	Brandon Drury	5
## 3	drurb001	Brandon Drury	5
## 4	jansd001	Danny Jansen	10
## 5	mckib001	Billy McKinney	9
## 6	drurb001	Brandon Drury	5
## 7	mckib001	Billy McKinney	9
## 8	drurb001	Brandon Drury	5
## 9	brits001	Socrates Brito	9
## 10	galvf001	Freddy Galvis	6
## 11	brits001	Socrates Brito	9
## 12	galvf001	Freddy Galvis	6
## 13	mckib001	Billy McKinney	7
## 14	mckib001	Billy McKinney	9
## 15	galvf001	Freddy Galvis	6
## 16	mckib001	Billy McKinney	7
## 17	mckib001	Billy McKinney	9
## 18	sogae001	Eric Sogard	5
## 19	sogae001	Eric Sogard	4

## 20	sogae001	Eric Sogard	4	galvf001
## 21	sogae001	Eric Sogard	4	galvf001
## 22	sogae001	Eric Sogard	4	galvf001
## 23	hansa001	Alen Hanson	4	galvf001
## 24	sogae001	Eric Sogard	4	urenr001
## 25	sogae001	Eric Sogard	4	drurb001
## 26	sogae001	Eric Sogard	6	smoaj001
## 27	sogae001	Eric Sogard	6	smoaj001
## 28	sogae001	Eric Sogard	6	smoaj001
## 29	sogae001	Eric Sogard	4	galvf001
## 30	galvf001	Freddy Galvis	6	gricr001
## 31	sogae001	Eric Sogard	4	galvf001
## 32	sogae001	Eric Sogard	4	galvf001
## 33	sogae001	Eric Sogard	4	galvf001
## 34	sogae001	Eric Sogard	4	galvf001
## 35	sogae001	Eric Sogard	4	galvf001
## 36	galvf001	Freddy Galvis	6	smoaj001
## 37	sogae001	Eric Sogard	4	galvf001
## 38	sogae001	Eric Sogard	4	guerv002
## 39	sogae001	Eric Sogard	4	guerv002
## 40	galvf001	Freddy Galvis	6	guerv002
## 41	sogae001	Eric Sogard	4	guerv002
## 42	drurb001	Brandon Drury	4	guerv002
## 43	sogae001	Eric Sogard	4	guerv002
## 44	sogae001	Eric Sogard	4	guerv002
## 45	mckib001	Billy McKinney	7	guerv002
## 46	sogae001	Eric Sogard	4	guerv002
## 47	davij007	Jonathan Davis	8	drurb001
## 48	davij007	Jonathan Davis	8	guerv002
## 49	sogae001	Eric Sogard	4	guerv002
## 50	sogae001	Eric Sogard	4	guerv002
## 51	drurb001	Brandon Drury	9	guerv002
## 52	galvf001	Freddy Galvis	6	guerv002
## 53	sogae001	Eric Sogard	5	guerv002
## 54	sogae001	Eric Sogard	4	guerv002
## 55	sogae001	Eric Sogard	4	guerv002
## 56	sogae001	Eric Sogard	4	gurr1001
## 57	galvf001	Freddy Galvis	6	guerv002
## 58	galvf001	Freddy Galvis	6	guerv002
## 59	sogae001	Eric Sogard	4	guerv002
## 60	sogae001	Eric Sogard	4	guerv002
## 61	gurr1001	Lourdes Gurriel	7	guerv002
## 62	sogae001	Eric Sogard	4	guerv002
## 63	sogae001	Eric Sogard	4	guerv002
## 64	biggc002	Cavan Biggio	4	guerv002
## 65	sogae001	Eric Sogard	10	gurr1001
## 66	sogae001	Eric Sogard	4	guerv002
## 67	biggc002	Cavan Biggio	4	guerv002
## 68	sogae001	Eric Sogard	4	guerv002
## 69	biggc002	Cavan Biggio	4	guerv002
## 70	sogae001	Eric Sogard	4	gricr001
## 71	sogae001	Eric Sogard	5	guerv002
## 72	sogae001	Eric Sogard	10	biggc002
## 73	sogae001	Eric Sogard	4	guerv002

## 74	sogae001	Eric Sogard	10	guerv002
## 75	sogae001	Eric Sogard	10	guerv002
## 76	sogae001	Eric Sogard	4	guerv002
## 77	sogae001	Eric Sogard	10	guerv002
## 78	sogae001	Eric Sogard	4	guerv002
## 79	sogae001	Eric Sogard	10	guerv002
## 80	sogae001	Eric Sogard	10	guerv002
## 81	biggc002	Cavan Biggio	4	guerv002
## 82	sogae001	Eric Sogard	10	guerv002
## 83	sogae001	Eric Sogard	4	guerv002
## 84	sogae001	Eric Sogard	5	smoaj001
## 85	sogae001	Eric Sogard	10	guerv002
## 86	sogae001	Eric Sogard	10	guerv002
## 87	galvf001	Freddy Galvis	6	guerv002
## 88	sogae001	Eric Sogard	9	galvf001
## 89	sogae001	Eric Sogard	9	galvf001
## 90	galvf001	Freddy Galvis	6	guerv002
## 91	sogae001	Eric Sogard	9	galvf001
## 92	sogae001	Eric Sogard	10	galvf001
## 93	sogae001	Eric Sogard	9	galvf001
## 94	sogae001	Eric Sogard	4	galvf001
## 95	sogae001	Eric Sogard	10	galvf001
## 96	sogae001	Eric Sogard	4	guerv002
## 97	sogae001	Eric Sogard	7	guerv002
## 98	galvf001	Freddy Galvis	6	gricr001
## 99	sogae001	Eric Sogard	4	galvf001
## 100	sogae001	Eric Sogard	10	galvf001
## 101	sogae001	Eric Sogard	4	galvf001
## 102	sogae001	Eric Sogard	10	galvf001
## 103	sogae001	Eric Sogard	10	galvf001
## 104	sogae001	Eric Sogard	4	galvf001
## 105	biggc002	Cavan Biggio	4	guerv002
## 106	sogae001	Eric Sogard	9	galvf001
## 107	biggc002	Cavan Biggio	4	galvf001
## 108	biggc002	Cavan Biggio	4	gricr001
## 109	bichb001	Bo Bichette	6	galvf001
## 110	bichb001	Bo Bichette	6	biggc002
## 111	bichb001	Bo Bichette	10	biggc002
## 112	bichb001	Bo Bichette	6	biggc002
## 113	bichb001	Bo Bichette	6	galvf001
## 114	bichb001	Bo Bichette	6	biggc002
## 115	bichb001	Bo Bichette	6	biggc002
## 116	bichb001	Bo Bichette	10	biggc002
## 117	bichb001	Bo Bichette	6	galvf001
## 118	bichb001	Bo Bichette	6	biggc002
## 119	bichb001	Bo Bichette	6	biggc002
## 120	bichb001	Bo Bichette	10	biggc002
## 121	bichb001	Bo Bichette	6	biggc002
## 122	bichb001	Bo Bichette	6	biggc002
## 123	bichb001	Bo Bichette	6	biggc002
## 124	bichb001	Bo Bichette	6	biggc002
## 125	bichb001	Bo Bichette	6	biggc002
## 126	bichb001	Bo Bichette	6	biggc002
## 127	bichb001	Bo Bichette	6	biggc002

## 128	bichb001	Bo Bichette	6	drurb001
## 129	bichb001	Bo Bichette	6	biggc002
## 130	bichb001	Bo Bichette	6	biggc002
## 131	bichb001	Bo Bichette	6	fishd001
## 132	bichb001	Bo Bichette	6	biggc002
## 133	bichb001	Bo Bichette	6	biggc002
## 134	bichb001	Bo Bichette	6	biggc002
## 135	bichb001	Bo Bichette	6	biggc002
## 136	bichb001	Bo Bichette	6	biggc002
## 137	bichb001	Bo Bichette	6	biggc002
## 138	bichb001	Bo Bichette	6	biggc002
## 139	bichb001	Bo Bichette	6	biggc002
## 140	bichb001	Bo Bichette	6	biggc002
## 141	bichb001	Bo Bichette	6	biggc002
## 142	bichb001	Bo Bichette	6	hernt002
## 143	bichb001	Bo Bichette	6	biggc002
## 144	bichb001	Bo Bichette	6	hernt002
## 145	bichb001	Bo Bichette	6	biggc002
## 146	bichb001	Bo Bichette	6	biggc002
## 147	bichb001	Bo Bichette	6	biggc002
## 148	bichb001	Bo Bichette	10	biggc002
## 149	bichb001	Bo Bichette	6	gricr001
## 150	bichb001	Bo Bichette	6	biggc002
## 151	bichb001	Bo Bichette	6	biggc002
## 152	bichb001	Bo Bichette	6	biggc002
## 153	bichb001	Bo Bichette	6	biggc002
## 154	alfoa002	Anthony Alford	7	biggc002
## 155	davij007	Jonathan Davis	8	biggc002
## 156	mckib001	Billy McKinney	9	biggc002
## 157	mckib001	Billy McKinney	9	biggc002
## 158	valeb001	Breyvic Valera	6	biggc002
## 159	mckib001	Billy McKinney	9	valeb001
## 160	mckib001	Billy McKinney	9	biggc002
## 161	hernt002	Teoscar Hernandez	8	biggc002
## 162	hernt002	Teoscar Hernandez	7	biggc002
##	tor_batting_2_name	tor_batting_2_pos	tor_batting_3_id	tor_batting_3_name
## 1	Randal Grichuk	9	hernt002	Teoscar Hernandez
## 2	Randal Grichuk	10	smoaj001	Justin Smoak
## 3	Billy McKinney	9	hernt002	Teoscar Hernandez
## 4	Brandon Drury	5	smoaj001	Justin Smoak
## 5	Brandon Drury	5	smoaj001	Justin Smoak
## 6	Billy McKinney	9	hernt002	Teoscar Hernandez
## 7	Randal Grichuk	8	smoaj001	Justin Smoak
## 8	Socrates Brito	9	gricr001	Randal Grichuk
## 9	Teoscar Hernandez	7	mckib001	Billy McKinney
## 10	Teoscar Hernandez	7	smoaj001	Justin Smoak
## 11	Freddy Galvis	6	gricr001	Randal Grichuk
## 12	Teoscar Hernandez	7	drurb001	Brandon Drury
## 13	Freddy Galvis	6	smoaj001	Justin Smoak
## 14	Freddy Galvis	6	smoaj001	Justin Smoak
## 15	Justin Smoak	10	hernt002	Teoscar Hernandez
## 16	Freddy Galvis	6	smoaj001	Justin Smoak
## 17	Freddy Galvis	6	gricr001	Randal Grichuk
## 18	Freddy Galvis	6	gricr001	Randal Grichuk

## 19	Freddy Galvis	6	gricr001	Randal Grichuk
## 20	Freddy Galvis	6	gricr001	Randal Grichuk
## 21	Freddy Galvis	6	gricr001	Randal Grichuk
## 22	Freddy Galvis	6	gricr001	Randal Grichuk
## 23	Freddy Galvis	6	gricr001	Randal Grichuk
## 24	Richard Urena	6	gricr001	Randal Grichuk
## 25	Brandon Drury	5	smoaj001	Justin Smoak
## 26	Justin Smoak	3	gricr001	Randal Grichuk
## 27	Justin Smoak	3	gricr001	Randal Grichuk
## 28	Justin Smoak	10	gricr001	Randal Grichuk
## 29	Freddy Galvis	6	gricr001	Randal Grichuk
## 30	Randal Grichuk	8	smoaj001	Justin Smoak
## 31	Freddy Galvis	6	gricr001	Randal Grichuk
## 32	Freddy Galvis	6	gricr001	Randal Grichuk
## 33	Freddy Galvis	6	smoaj001	Justin Smoak
## 34	Freddy Galvis	6	gricr001	Randal Grichuk
## 35	Freddy Galvis	6	gricr001	Randal Grichuk
## 36	Justin Smoak	3	gricr001	Randal Grichuk
## 37	Freddy Galvis	6	gricr001	Randal Grichuk
## 38	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 39	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 40	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 41	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 42	Vladimir Guerrero	5	tellr001	Rowdy Tellez
## 43	Vladimir Guerrero	10	smoaj001	Justin Smoak
## 44	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 45	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 46	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 47	Brandon Drury	5	smoaj001	Justin Smoak
## 48	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 49	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 50	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 51	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 52	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 53	Vladimir Guerrero	10	smoaj001	Justin Smoak
## 54	Vladimir Guerrero	5	tellr001	Rowdy Tellez
## 55	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 56	Lourdes Gurriel	7	smoaj001	Justin Smoak
## 57	Vladimir Guerrero	5	tellr001	Rowdy Tellez
## 58	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 59	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 60	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 61	Vladimir Guerrero	10	smoaj001	Justin Smoak
## 62	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 63	Vladimir Guerrero	5	tellr001	Rowdy Tellez
## 64	Vladimir Guerrero	5	smoaj001	Justin Smoak
## 65	Lourdes Gurriel	7	gricr001	Randal Grichuk
## 66	Vladimir Guerrero	10	gurrl001	Lourdes Gurriel
## 67	Vladimir Guerrero	5	gurrl001	Lourdes Gurriel
## 68	Vladimir Guerrero	5	gurrl001	Lourdes Gurriel
## 69	Vladimir Guerrero	5	gurrl001	Lourdes Gurriel
## 70	Randal Grichuk	9	gurrl001	Lourdes Gurriel
## 71	Vladimir Guerrero	10	gurrl001	Lourdes Gurriel
## 72	Cavan Biggio	7	guerv002	Vladimir Guerrero

## 73	Vladimir Guerrero	10	gurr1001	Lourdes Gurriel
## 74	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 75	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 76	Vladimir Guerrero	10	gurr1001	Lourdes Gurriel
## 77	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 78	Vladimir Guerrero	10	gurr1001	Lourdes Gurriel
## 79	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 80	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 81	Vladimir Guerrero	10	gurr1001	Lourdes Gurriel
## 82	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 83	Vladimir Guerrero	10	gurr1001	Lourdes Gurriel
## 84	Justin Smoak	10	gurr1001	Lourdes Gurriel
## 85	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 86	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 87	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 88	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 89	Freddy Galvis	6	guerv002	Vladimir Guerrero
## 90	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 91	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 92	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 93	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 94	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 95	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 96	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 97	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 98	Randal Grichuk	9	gurr1001	Lourdes Gurriel
## 99	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 100	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 101	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 102	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 103	Freddy Galvis	6	smoaj001	Justin Smoak
## 104	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 105	Vladimir Guerrero	5	gurr1001	Lourdes Gurriel
## 106	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 107	Freddy Galvis	6	gurr1001	Lourdes Gurriel
## 108	Randal Grichuk	9	guerv002	Vladimir Guerrero
## 109	Freddy Galvis	10	gurr1001	Lourdes Gurriel
## 110	Cavan Biggio	4	gurr1001	Lourdes Gurriel
## 111	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 112	Cavan Biggio	9	gurr1001	Lourdes Gurriel
## 113	Freddy Galvis	4	gurr1001	Lourdes Gurriel
## 114	Cavan Biggio	4	gurr1001	Lourdes Gurriel
## 115	Cavan Biggio	4	gurr1001	Lourdes Gurriel
## 116	Cavan Biggio	4	gurr1001	Lourdes Gurriel
## 117	Freddy Galvis	4	gurr1001	Lourdes Gurriel
## 118	Cavan Biggio	4	gurr1001	Lourdes Gurriel
## 119	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 120	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 121	Cavan Biggio	10	galvf001	Freddy Galvis
## 122	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 123	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 124	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 125	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 126	Cavan Biggio	4	guerv002	Vladimir Guerrero

## 127	Cavan Biggio	4	gricr001	Randal Grichuk
## 128	Brandon Drury	4	guerv002	Vladimir Guerrero
## 129	Cavan Biggio	4	gricr001	Randal Grichuk
## 130	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 131	Derek Fisher	7	guerv002	Vladimir Guerrero
## 132	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 133	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 134	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 135	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 136	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 137	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 138	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 139	Cavan Biggio	4	gricr001	Randal Grichuk
## 140	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 141	Cavan Biggio	4	gricr001	Randal Grichuk
## 142	Teoscar Hernandez	8	gricr001	Randal Grichuk
## 143	Cavan Biggio	4	tellr001	Rowdy Tellez
## 144	Teoscar Hernandez	8	tellr001	Rowdy Tellez
## 145	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 146	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 147	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 148	Cavan Biggio	4	guerv002	Vladimir Guerrero
## 149	Randal Grichuk	9	gurrl001	Lourdes Gurriel
## 150	Cavan Biggio	4	gricr001	Randal Grichuk
## 151	Cavan Biggio	4	gurrl001	Lourdes Gurriel
## 152	Cavan Biggio	4	gricr001	Randal Grichuk
## 153	Cavan Biggio	4	gurrl001	Lourdes Gurriel
## 154	Cavan Biggio	4	gurrl001	Lourdes Gurriel
## 155	Cavan Biggio	4	gurrl001	Lourdes Gurriel
## 156	Cavan Biggio	4	gricr001	Randal Grichuk
## 157	Cavan Biggio	4	gricr001	Randal Grichuk
## 158	Cavan Biggio	4	gricr001	Randal Grichuk
## 159	Breyvic Valera	6	biggc002	Cavan Biggio
## 160	Cavan Biggio	4	gricr001	Randal Grichuk
## 161	Cavan Biggio	4	gricr001	Randal Grichuk
## 162	Cavan Biggio	4	gricr001	Randal Grichuk
##	tor_batting_3_pos	tor_batting_4_id	tor_batting_4_name	tor_batting_4_pos
## 1	7	smoaj001	Justin Smoak	3
## 2	3	hernt002	Teoscar Hernandez	7
## 3	7	smoaj001	Justin Smoak	3
## 4	3	gricr001	Randal Grichuk	9
## 5	3	gricr001	Randal Grichuk	8
## 6	7	smoaj001	Justin Smoak	3
## 7	10	hernt002	Teoscar Hernandez	7
## 8	8	tellr001	Rowdy Tellez	10
## 9	10	gricr001	Randal Grichuk	8
## 10	10	gricr001	Randal Grichuk	8
## 11	8	tellr001	Rowdy Tellez	3
## 12	5	gricr001	Randal Grichuk	8
## 13	10	gricr001	Randal Grichuk	8
## 14	3	gricr001	Randal Grichuk	8
## 15	7	gricr001	Randal Grichuk	8
## 16	3	gricr001	Randal Grichuk	8
## 17	8	smoaj001	Justin Smoak	3

## 18	9	smoaj001	Justin Smoak	3
## 19	8	smoaj001	Justin Smoak	3
## 20	8	smoaj001	Justin Smoak	10
## 21	10	smoaj001	Justin Smoak	3
## 22	8	smoaj001	Justin Smoak	10
## 23	8	smoaj001	Justin Smoak	3
## 24	9	smoaj001	Justin Smoak	3
## 25	10	gricr001	Randal Grichuk	8
## 26	8	tellr001	Rowdy Tellez	10
## 27	8	guerv002	Vladimir Guerrero	5
## 28	8	tellr001	Rowdy Tellez	3
## 29	8	smoaj001	Justin Smoak	10
## 30	3	tellr001	Rowdy Tellez	10
## 31	8	smoaj001	Justin Smoak	3
## 32	8	smoaj001	Justin Smoak	10
## 33	10	gricr001	Randal Grichuk	8
## 34	8	smoaj001	Justin Smoak	3
## 35	8	smoaj001	Justin Smoak	3
## 36	8	tellr001	Rowdy Tellez	10
## 37	8	smoaj001	Justin Smoak	10
## 38	3	tellr001	Rowdy Tellez	10
## 39	3	tellr001	Rowdy Tellez	10
## 40	3	tellr001	Rowdy Tellez	10
## 41	3	gricr001	Randal Grichuk	9
## 42	3	gricr001	Randal Grichuk	8
## 43	3	gricr001	Randal Grichuk	9
## 44	3	tellr001	Rowdy Tellez	10
## 45	10	tellr001	Rowdy Tellez	3
## 46	3	tellr001	Rowdy Tellez	10
## 47	3	gricr001	Randal Grichuk	9
## 48	3	tellr001	Rowdy Tellez	10
## 49	3	tellr001	Rowdy Tellez	10
## 50	10	tellr001	Rowdy Tellez	3
## 51	10	tellr001	Rowdy Tellez	3
## 52	3	tellr001	Rowdy Tellez	10
## 53	3	gricr001	Randal Grichuk	8
## 54	3	gricr001	Randal Grichuk	9
## 55	3	tellr001	Rowdy Tellez	10
## 56	3	tellr001	Rowdy Tellez	10
## 57	3	gurrl001	Lourdes Gurriel	7
## 58	3	gurrl001	Lourdes Gurriel	7
## 59	3	gricr001	Randal Grichuk	8
## 60	3	tellr001	Rowdy Tellez	10
## 61	3	gricr001	Randal Grichuk	9
## 62	3	gricr001	Randal Grichuk	10
## 63	10	gricr001	Randal Grichuk	9
## 64	10	gricr001	Randal Grichuk	9
## 65	9	smoaj001	Justin Smoak	3
## 66	7	gricr001	Randal Grichuk	9
## 67	7	gricr001	Randal Grichuk	9
## 68	7	smoaj001	Justin Smoak	3
## 69	7	tellr001	Rowdy Tellez	10
## 70	7	hernt002	Teoscar Hernandez	8
## 71	7	tellr001	Rowdy Tellez	3

## 72	5	tellr001	Rowdy Tellez	3
## 73	7	biggc002	Cavan Biggio	9
## 74	7	gricr001	Randal Grichuk	8
## 75	7	biggc002	Cavan Biggio	4
## 76	7	hernt002	Teoscar Hernandez	8
## 77	7	gricr001	Randal Grichuk	9
## 78	7	biggc002	Cavan Biggio	9
## 79	7	biggc002	Cavan Biggio	4
## 80	7	biggc002	Cavan Biggio	4
## 81	7	gricr001	Randal Grichuk	9
## 82	7	biggc002	Cavan Biggio	4
## 83	7	biggc002	Cavan Biggio	9
## 84	7	biggc002	Cavan Biggio	4
## 85	7	biggc002	Cavan Biggio	4
## 86	7	smoaj001	Justin Smoak	3
## 87	7	biggc002	Cavan Biggio	4
## 88	7	biggc002	Cavan Biggio	4
## 89	5	biggc002	Cavan Biggio	4
## 90	7	biggc002	Cavan Biggio	4
## 91	7	biggc002	Cavan Biggio	4
## 92	7	biggc002	Cavan Biggio	4
## 93	7	biggc002	Cavan Biggio	4
## 94	7	biggc002	Cavan Biggio	10
## 95	7	biggc002	Cavan Biggio	4
## 96	10	gricr001	Randal Grichuk	9
## 97	10	gricr001	Randal Grichuk	9
## 98	7	smoaj001	Justin Smoak	3
## 99	7	smoaj001	Justin Smoak	3
## 100	7	gricr001	Randal Grichuk	9
## 101	7	gricr001	Randal Grichuk	9
## 102	7	biggc002	Cavan Biggio	4
## 103	3	biggc002	Cavan Biggio	4
## 104	7	guerv002	Vladimir Guerrero	10
## 105	7	smoaj001	Justin Smoak	10
## 106	7	gricr001	Randal Grichuk	10
## 107	7	smoaj001	Justin Smoak	3
## 108	5	smoaj001	Justin Smoak	3
## 109	7	gricr001	Randal Grichuk	9
## 110	7	smoaj001	Justin Smoak	3
## 111	5	smoaj001	Justin Smoak	3
## 112	7	guerv002	Vladimir Guerrero	5
## 113	7	guerv002	Vladimir Guerrero	5
## 114	7	guerv002	Vladimir Guerrero	10
## 115	7	smoaj001	Justin Smoak	3
## 116	7	guerv002	Vladimir Guerrero	5
## 117	10	gricr001	Randal Grichuk	9
## 118	7	guerv002	Vladimir Guerrero	5
## 119	5	gricr001	Randal Grichuk	9
## 120	5	gricr001	Randal Grichuk	9
## 121	4	gricr001	Randal Grichuk	9
## 122	5	smoaj001	Justin Smoak	10
## 123	5	smoaj001	Justin Smoak	3
## 124	10	gricr001	Randal Grichuk	9
## 125	5	gricr001	Randal Grichuk	9

## 126	5	tellr001	Rowdy Tellez	3
## 127	9	hernt002	Teoscar Hernandez	8
## 128	5	gricr001	Randal Grichuk	9
## 129	9	tellr001	Rowdy Tellez	3
## 130	5	tellr001	Rowdy Tellez	3
## 131	10	gricr001	Randal Grichuk	9
## 132	5	tellr001	Rowdy Tellez	10
## 133	10	tellr001	Rowdy Tellez	3
## 134	5	tellr001	Rowdy Tellez	3
## 135	5	tellr001	Rowdy Tellez	10
## 136	5	gricr001	Randal Grichuk	9
## 137	10	gricr001	Randal Grichuk	9
## 138	5	smoaj001	Justin Smoak	3
## 139	9	smoaj001	Justin Smoak	3
## 140	5	tellr001	Rowdy Tellez	3
## 141	9	guerv002	Vladimir Guerrero	5
## 142	10	guerv002	Vladimir Guerrero	5
## 143	3	guerv002	Vladimir Guerrero	5
## 144	3	guerv002	Vladimir Guerrero	10
## 145	5	tellr001	Rowdy Tellez	3
## 146	5	tellr001	Rowdy Tellez	10
## 147	5	tellr001	Rowdy Tellez	3
## 148	5	tellr001	Rowdy Tellez	3
## 149	10	guerv002	Vladimir Guerrero	5
## 150	9	tellr001	Rowdy Tellez	10
## 151	10	guerv002	Vladimir Guerrero	5
## 152	9	guerv002	Vladimir Guerrero	10
## 153	7	guerv002	Vladimir Guerrero	5
## 154	10	guerv002	Vladimir Guerrero	5
## 155	10	guerv002	Vladimir Guerrero	5
## 156	8	smoaj001	Justin Smoak	10
## 157	10	guerv002	Vladimir Guerrero	5
## 158	9	guerv002	Vladimir Guerrero	10
## 159	4	guerv002	Vladimir Guerrero	10
## 160	10	tellr001	Rowdy Tellez	3
## 161	9	tellr001	Rowdy Tellez	3
## 162	9	tellr001	Rowdy Tellez	10
##	tor_batting_5_id	tor_batting_5_name	tor_batting_5_pos	tor_batting_6_id
## 1	gurr1001	Lourdes Gurriel	4	pillk001
## 2	gurr1001	Lourdes Gurriel	4	pillk001
## 3	jansd001	Danny Jansen	2	tellr001
## 4	hernt002	Teoscar Hernandez	7	gurr1001
## 5	tellr001	Rowdy Tellez	10	hernt002
## 6	jansd001	Danny Jansen	2	tellr001
## 7	tellr001	Rowdy Tellez	3	gurr1001
## 8	jansd001	Danny Jansen	2	mckib001
## 9	tellr001	Rowdy Tellez	3	drurb001
## 10	tellr001	Rowdy Tellez	3	drurb001
## 11	hernt002	Teoscar Hernandez	10	mckib001
## 12	jansd001	Danny Jansen	2	gurr1001
## 13	tellr001	Rowdy Tellez	3	jansd001
## 14	hernt002	Teoscar Hernandez	7	gurr1001
## 15	gurr1001	Lourdes Gurriel	4	drurb001
## 16	tellr001	Rowdy Tellez	10	gurr1001

## 17	hernt002	Teoscar Hernandez	7	drurb001
## 18	hernt002	Teoscar Hernandez	7	tellr001
## 19	hernt002	Teoscar Hernandez	7	tellr001
## 20	hernt002	Teoscar Hernandez	7	tellr001
## 21	hernt002	Teoscar Hernandez	7	mckib001
## 22	hernt002	Teoscar Hernandez	7	tellr001
## 23	hernt002	Teoscar Hernandez	7	drurb001
## 24	tellr001	Rowdy Tellez	10	drurb001
## 25	tellr001	Rowdy Tellez	3	hernt002
## 26	guerv002	Vladimir Guerrero	5	mckib001
## 27	hernt002	Teoscar Hernandez	7	drurb001
## 28	guerv002	Vladimir Guerrero	5	mckib001
## 29	guerv002	Vladimir Guerrero	5	tellr001
## 30	guerv002	Vladimir Guerrero	5	drurb001
## 31	drurb001	Brandon Drury	5	tellr001
## 32	guerv002	Vladimir Guerrero	5	tellr001
## 33	guerv002	Vladimir Guerrero	5	tellr001
## 34	guerv002	Vladimir Guerrero	5	tellr001
## 35	guerv002	Vladimir Guerrero	5	tellr001
## 36	guerv002	Vladimir Guerrero	5	mckib001
## 37	tellr001	Rowdy Tellez	3	mckib001
## 38	gricr001	Randal Grichuk	9	galvf001
## 39	gricr001	Randal Grichuk	8	galvf001
## 40	gricr001	Randal Grichuk	9	drurb001
## 41	galvf001	Freddy Galvis	6	mckib001
## 42	galvf001	Freddy Galvis	6	hernt002
## 43	galvf001	Freddy Galvis	6	drurb001
## 44	gricr001	Randal Grichuk	8	galvf001
## 45	gricr001	Randal Grichuk	8	galvf001
## 46	gricr001	Randal Grichuk	9	galvf001
## 47	galvf001	Freddy Galvis	6	jansd001
## 48	gricr001	Randal Grichuk	9	galvf001
## 49	gricr001	Randal Grichuk	9	galvf001
## 50	drurb001	Brandon Drury	7	galvf001
## 51	gricr001	Randal Grichuk	8	galvf001
## 52	gricr001	Randal Grichuk	9	gurr1001
## 53	galvf001	Freddy Galvis	6	gurr1001
## 54	galvf001	Freddy Galvis	6	gurr1001
## 55	gricr001	Randal Grichuk	9	gurr1001
## 56	gricr001	Randal Grichuk	9	galvf001
## 57	gricr001	Randal Grichuk	9	biggc002
## 58	gricr001	Randal Grichuk	9	biggc002
## 59	biggc002	Cavan Biggio	9	drurb001
## 60	gricr001	Randal Grichuk	8	biggc002
## 61	drurb001	Brandon Drury	5	hernt002
## 62	gurr1001	Lourdes Gurriel	7	hernt002
## 63	gurr1001	Lourdes Gurriel	7	biggc002
## 64	gurr1001	Lourdes Gurriel	7	tellr001
## 65	hernt002	Teoscar Hernandez	8	biggc002
## 66	smoaj001	Justin Smoak	3	hernt002
## 67	smoaj001	Justin Smoak	3	hernt002
## 68	tellr001	Rowdy Tellez	10	hernt002
## 69	smoaj001	Justin Smoak	3	gricr001
## 70	tellr001	Rowdy Tellez	10	galvf001

## 71	hernt002	Teoscar Hernandez	8	biggc002
## 72	hernt002	Teoscar Hernandez	8	gricr001
## 73	gricr001	Randal Grichuk	8	tellr001
## 74	galvf001	Freddy Galvis	6	biggc002
## 75	hernt002	Teoscar Hernandez	8	gricr001
## 76	gricr001	Randal Grichuk	9	galvf001
## 77	hernt002	Teoscar Hernandez	8	biggc002
## 78	galvf001	Freddy Galvis	6	gricr001
## 79	gricr001	Randal Grichuk	8	tellr001
## 80	hernt002	Teoscar Hernandez	8	tellr001
## 81	tellr001	Rowdy Tellez	3	hernt002
## 82	hernt002	Teoscar Hernandez	8	smoaj001
## 83	smoaj001	Justin Smoak	3	galvf001
## 84	hernt002	Teoscar Hernandez	8	tellr001
## 85	gricr001	Randal Grichuk	9	tellr001
## 86	gricr001	Randal Grichuk	8	biggc002
## 87	gricr001	Randal Grichuk	8	smoaj001
## 88	smoaj001	Justin Smoak	3	tellr001
## 89	jansd001	Danny Jansen	2	smoaj001
## 90	jansd001	Danny Jansen	10	smoaj001
## 91	guerv002	Vladimir Guerrero	5	smoaj001
## 92	guerv002	Vladimir Guerrero	5	smoaj001
## 93	guerv002	Vladimir Guerrero	10	gricr001
## 94	guerv002	Vladimir Guerrero	5	smoaj001
## 95	gricr001	Randal Grichuk	8	smoaj001
## 96	jansd001	Danny Jansen	2	smoaj001
## 97	biggc002	Cavan Biggio	4	smoaj001
## 98	jansd001	Danny Jansen	2	guerv002
## 99	guerv002	Vladimir Guerrero	5	biggc002
## 100	guerv002	Vladimir Guerrero	5	jansd001
## 101	guerv002	Vladimir Guerrero	10	smoaj001
## 102	guerv002	Vladimir Guerrero	5	smoaj001
## 103	guerv002	Vladimir Guerrero	5	gricr001
## 104	smoaj001	Justin Smoak	3	gricr001
## 105	gricr001	Randal Grichuk	9	galvf001
## 106	guerv002	Vladimir Guerrero	5	biggc002
## 107	guerv002	Vladimir Guerrero	10	drurb001
## 108	drurb001	Brandon Drury	7	bichb001
## 109	guerv002	Vladimir Guerrero	5	biggc002
## 110	gricr001	Randal Grichuk	8	galvf001
## 111	gricr001	Randal Grichuk	9	galvf001
## 112	smoaj001	Justin Smoak	10	galvf001
## 113	smoaj001	Justin Smoak	3	gricr001
## 114	smoaj001	Justin Smoak	3	gricr001
## 115	guerv002	Vladimir Guerrero	5	galvf001
## 116	galvf001	Freddy Galvis	6	gricr001
## 117	smoaj001	Justin Smoak	3	drurb001
## 118	galvf001	Freddy Galvis	10	smoaj001
## 119	galvf001	Freddy Galvis	10	hernt002
## 120	smoaj001	Justin Smoak	3	galvf001
## 121	smoaj001	Justin Smoak	3	hernt002
## 122	gricr001	Randal Grichuk	9	hernt002
## 123	gricr001	Randal Grichuk	10	hernt002
## 124	hernt002	Teoscar Hernandez	8	tellr001

## 125	smoaj001	Justin Smoak	3	hernt002
## 126	gricr001	Randal Grichuk	8	smoaj001
## 127	smoaj001	Justin Smoak	3	tellr001
## 128	hernt002	Teoscar Hernandez	8	smoaj001
## 129	drurb001	Brandon Drury	5	mckib001
## 130	gricr001	Randal Grichuk	8	mckib001
## 131	smoaj001	Justin Smoak	3	hernt002
## 132	gricr001	Randal Grichuk	9	smoaj001
## 133	gricr001	Randal Grichuk	9	fishd001
## 134	gricr001	Randal Grichuk	8	smoaj001
## 135	gricr001	Randal Grichuk	9	smoaj001
## 136	hernt002	Teoscar Hernandez	8	smoaj001
## 137	hernt002	Teoscar Hernandez	8	drurb001
## 138	tellr001	Rowdy Tellez	10	gricr001
## 139	hernt002	Teoscar Hernandez	8	mckib001
## 140	gricr001	Randal Grichuk	9	fishd001
## 141	tellr001	Rowdy Tellez	10	hernt002
## 142	tellr001	Rowdy Tellez	3	drurb001
## 143	smoaj001	Justin Smoak	10	mcgur002
## 144	gricr001	Randal Grichuk	9	davij007
## 145	gricr001	Randal Grichuk	9	smoaj001
## 146	gricr001	Randal Grichuk	9	hernt002
## 147	smoaj001	Justin Smoak	10	gricr001
## 148	gricr001	Randal Grichuk	9	mcgur002
## 149	hernt002	Teoscar Hernandez	7	smoaj001
## 150	hernt002	Teoscar Hernandez	8	mcgur002
## 151	gricr001	Randal Grichuk	9	smoaj001
## 152	mcgur002	Reese McGuire	2	hernt002
## 153	smoaj001	Justin Smoak	10	gricr001
## 154	gricr001	Randal Grichuk	9	hernt002
## 155	gricr001	Randal Grichuk	9	hernt002
## 156	mcgur002	Reese McGuire	2	tellr001
## 157	tellr001	Rowdy Tellez	3	hernt002
## 158	mcgur002	Reese McGuire	2	drurb001
## 159	tellr001	Rowdy Tellez	3	hernt002
## 160	guerv002	Vladimir Guerrero	5	mcgur002
## 161	drurb001	Brandon Drury	5	smoaj001
## 162	smoaj001	Justin Smoak	3	valeb001
##	tor_batting_6_name	tor_batting_6_pos	tor_batting_7_id	tor_batting_7_name
## 1	Kevin Pillar	8	tellr001	Rowdy Tellez
## 2	Kevin Pillar	8	mckib001	Billy McKinney
## 3	Rowdy Tellez	10	pillk001	Kevin Pillar
## 4	Lourdes Gurriel	4	pillk001	Kevin Pillar
## 5	Teoscar Hernandez	7	gurrl001	Lourdes Gurriel
## 6	Rowdy Tellez	10	alfoa002	Anthony Alford
## 7	Lourdes Gurriel	4	galvf001	Freddy Galvis
## 8	Billy McKinney	7	gurrl001	Lourdes Gurriel
## 9	Brandon Drury	5	galvf001	Freddy Galvis
## 10	Brandon Drury	5	jansd001	Danny Jansen
## 11	Billy McKinney	7	hansa001	Alen Hanson
## 12	Lourdes Gurriel	10	urenr001	Richard Urena
## 13	Danny Jansen	2	drurb001	Brandon Drury
## 14	Lourdes Gurriel	10	urenr001	Richard Urena
## 15	Brandon Drury	5	tellr001	Rowdy Tellez

## 16	Lourdes Gurriel	4	brits001	Socrates Brito
## 17	Brandon Drury	5	hansa001	Alen Hanson
## 18	Rowdy Tellez	10	hansa001	Alen Hanson
## 19	Rowdy Tellez	10	drurb001	Brandon Drury
## 20	Rowdy Tellez	3	drurb001	Brandon Drury
## 21	Billy McKinney	9	drurb001	Brandon Drury
## 22	Rowdy Tellez	3	drurb001	Brandon Drury
## 23	Brandon Drury	5	tellr001	Rowdy Tellez
## 24	Brandon Drury	5	mckib001	Billy McKinney
## 25	Teoscar Hernandez	7	jansd001	Danny Jansen
## 26	Billy McKinney	9	hernt002	Teoscar Hernandez
## 27	Brandon Drury	4	tellr001	Rowdy Tellez
## 28	Billy McKinney	7	drurb001	Brandon Drury
## 29	Rowdy Tellez	3	drurb001	Brandon Drury
## 30	Brandon Drury	4	mckib001	Billy McKinney
## 31	Rowdy Tellez	10	hernt002	Teoscar Hernandez
## 32	Rowdy Tellez	3	drurb001	Brandon Drury
## 33	Rowdy Tellez	3	mckib001	Billy McKinney
## 34	Rowdy Tellez	10	drurb001	Brandon Drury
## 35	Rowdy Tellez	10	drurb001	Brandon Drury
## 36	Billy McKinney	9	drurb001	Brandon Drury
## 37	Billy McKinney	7	drurb001	Brandon Drury
## 38	Freddy Galvis	6	hernt002	Teoscar Hernandez
## 39	Freddy Galvis	6	hernt002	Teoscar Hernandez
## 40	Brandon Drury	4	hernt002	Teoscar Hernandez
## 41	Billy McKinney	7	davij007	Jonathan Davis
## 42	Teoscar Hernandez	7	mckib001	Billy McKinney
## 43	Brandon Drury	5	mckib001	Billy McKinney
## 44	Freddy Galvis	6	drurb001	Brandon Drury
## 45	Freddy Galvis	6	drurb001	Brandon Drury
## 46	Freddy Galvis	6	mckib001	Billy McKinney
## 47	Danny Jansen	10	mckib001	Billy McKinney
## 48	Freddy Galvis	6	mckib001	Billy McKinney
## 49	Freddy Galvis	6	drurb001	Brandon Drury
## 50	Freddy Galvis	6	mckib001	Billy McKinney
## 51	Freddy Galvis	6	gurrl001	Lourdes Gurriel
## 52	Lourdes Gurriel	7	biggc002	Cavan Biggio
## 53	Lourdes Gurriel	7	biggc002	Cavan Biggio
## 54	Lourdes Gurriel	7	biggc002	Cavan Biggio
## 55	Lourdes Gurriel	7	drurb001	Brandon Drury
## 56	Freddy Galvis	6	drurb001	Brandon Drury
## 57	Cavan Biggio	4	davij007	Jonathan Davis
## 58	Cavan Biggio	4	jansd001	Danny Jansen
## 59	Brandon Drury	7	galvf001	Freddy Galvis
## 60	Cavan Biggio	9	gurrl001	Lourdes Gurriel
## 61	Teoscar Hernandez	8	biggc002	Cavan Biggio
## 62	Teoscar Hernandez	8	galvf001	Freddy Galvis
## 63	Cavan Biggio	3	hernt002	Teoscar Hernandez
## 64	Rowdy Tellez	3	hernt002	Teoscar Hernandez
## 65	Cavan Biggio	4	galvf001	Freddy Galvis
## 66	Teoscar Hernandez	8	galvf001	Freddy Galvis
## 67	Teoscar Hernandez	8	tellr001	Rowdy Tellez
## 68	Teoscar Hernandez	8	biggc002	Cavan Biggio
## 69	Randal Grichuk	8	galvf001	Freddy Galvis

## 70	Freddy Galvis	6	biggc002	Cavan Biggio
## 71	Cavan Biggio	4	gricr001	Randal Grichuk
## 72	Randal Grichuk	9	galvf001	Freddy Galvis
## 73	Rowdy Tellez	3	galvf001	Freddy Galvis
## 74	Cavan Biggio	4	jansd001	Danny Jansen
## 75	Randal Grichuk	9	tellr001	Rowdy Tellez
## 76	Freddy Galvis	6	jansd001	Danny Jansen
## 77	Cavan Biggio	4	galvf001	Freddy Galvis
## 78	Randal Grichuk	8	tellr001	Rowdy Tellez
## 79	Rowdy Tellez	3	galvf001	Freddy Galvis
## 80	Rowdy Tellez	3	gricr001	Randal Grichuk
## 81	Teoscar Hernandez	8	galvf001	Freddy Galvis
## 82	Justin Smoak	3	gricr001	Randal Grichuk
## 83	Freddy Galvis	6	gricr001	Randal Grichuk
## 84	Rowdy Tellez	3	galvf001	Freddy Galvis
## 85	Rowdy Tellez	3	hernt002	Teoscar Hernandez
## 86	Cavan Biggio	4	galvf001	Freddy Galvis
## 87	Justin Smoak	10	jansd001	Danny Jansen
## 88	Rowdy Tellez	10	hernt002	Teoscar Hernandez
## 89	Justin Smoak	3	drurb001	Brandon Drury
## 90	Justin Smoak	3	drurb001	Brandon Drury
## 91	Justin Smoak	3	jansd001	Danny Jansen
## 92	Justin Smoak	3	gricr001	Randal Grichuk
## 93	Randal Grichuk	8	tellr001	Rowdy Tellez
## 94	Justin Smoak	3	gricr001	Randal Grichuk
## 95	Justin Smoak	3	jansd001	Danny Jansen
## 96	Justin Smoak	3	galvf001	Freddy Galvis
## 97	Justin Smoak	3	galvf001	Freddy Galvis
## 98	Vladimir Guerrero	10	hernt002	Teoscar Hernandez
## 99	Cavan Biggio	10	jansd001	Danny Jansen
## 100	Danny Jansen	2	biggc002	Cavan Biggio
## 101	Justin Smoak	3	hernt002	Teoscar Hernandez
## 102	Justin Smoak	3	gricr001	Randal Grichuk
## 103	Randal Grichuk	9	hernt002	Teoscar Hernandez
## 104	Randal Grichuk	9	jansd001	Danny Jansen
## 105	Freddy Galvis	6	jansd001	Danny Jansen
## 106	Cavan Biggio	4	jansd001	Danny Jansen
## 107	Brandon Drury	5	mckib001	Billy McKinney
## 108	Bo Bichette	6	mckib001	Billy McKinney
## 109	Cavan Biggio	4	hernt002	Teoscar Hernandez
## 110	Freddy Galvis	10	mckib001	Billy McKinney
## 111	Freddy Galvis	6	hernt002	Teoscar Hernandez
## 112	Freddy Galvis	4	drurb001	Brandon Drury
## 113	Randal Grichuk	10	fishd001	Derek Fisher
## 114	Randal Grichuk	9	hernt002	Teoscar Hernandez
## 115	Freddy Galvis	10	gricr001	Randal Grichuk
## 116	Randal Grichuk	9	hernt002	Teoscar Hernandez
## 117	Brandon Drury	5	fishd001	Derek Fisher
## 118	Justin Smoak	3	gricr001	Randal Grichuk
## 119	Teoscar Hernandez	8	drurb001	Brandon Drury
## 120	Freddy Galvis	6	fishd001	Derek Fisher
## 121	Teoscar Hernandez	8	fishd001	Derek Fisher
## 122	Teoscar Hernandez	8	fishd001	Derek Fisher
## 123	Teoscar Hernandez	8	mckib001	Billy McKinney

## 124	Rowdy Tellez	3	drurb001	Brandon Drury
## 125	Teoscar Hernandez	8	drurb001	Brandon Drury
## 126	Justin Smoak	10	fishd001	Derek Fisher
## 127	Rowdy Tellez	10	drurb001	Brandon Drury
## 128	Justin Smoak	3	jansd001	Danny Jansen
## 129	Billy McKinney	7	hernt002	Teoscar Hernandez
## 130	Billy McKinney	9	jansd001	Danny Jansen
## 131	Teoscar Hernandez	8	biggc002	Cavan Biggio
## 132	Justin Smoak	3	hernt002	Teoscar Hernandez
## 133	Derek Fisher	7	hernt002	Teoscar Hernandez
## 134	Justin Smoak	10	mckib001	Billy McKinney
## 135	Justin Smoak	3	hernt002	Teoscar Hernandez
## 136	Justin Smoak	10	drurb001	Brandon Drury
## 137	Brandon Drury	5	tellr001	Rowdy Tellez
## 138	Randal Grichuk	8	mckib001	Billy McKinney
## 139	Billy McKinney	7	drurb001	Brandon Drury
## 140	Derek Fisher	7	hernt002	Teoscar Hernandez
## 141	Teoscar Hernandez	8	smoaj001	Justin Smoak
## 142	Brandon Drury	4	davij007	Jonathan Davis
## 143	Reese McGuire	2	davij007	Jonathan Davis
## 144	Jonathan Davis	7	drurb001	Brandon Drury
## 145	Justin Smoak	10	mcgur002	Reese McGuire
## 146	Teoscar Hernandez	7	davij007	Jonathan Davis
## 147	Randal Grichuk	8	mcgur002	Reese McGuire
## 148	Reese McGuire	2	hernt002	Teoscar Hernandez
## 149	Justin Smoak	3	drurb001	Brandon Drury
## 150	Reese McGuire	2	drurb001	Brandon Drury
## 151	Justin Smoak	3	hernt002	Teoscar Hernandez
## 152	Teoscar Hernandez	8	tellr001	Rowdy Tellez
## 153	Randal Grichuk	8	mcgur002	Reese McGuire
## 154	Teoscar Hernandez	8	smoaj001	Justin Smoak
## 155	Teoscar Hernandez	7	drurb001	Brandon Drury
## 156	Rowdy Tellez	3	urenr001	Richard Urena
## 157	Teoscar Hernandez	7	drurb001	Brandon Drury
## 158	Brandon Drury	5	tellr001	Rowdy Tellez
## 159	Teoscar Hernandez	8	drurb001	Brandon Drury
## 160	Reese McGuire	2	hernt002	Teoscar Hernandez
## 161	Justin Smoak	10	alfoa002	Anthony Alford
## 162	Breyvic Valera	5	urenr001	Richard Urena
##	tor_batting_7_pos	tor_batting_8_id	tor_batting_8_name	tor_batting_8_pos
## 1	10	jansd001	Danny Jansen	2
## 2	9	galvf001	Freddy Galvis	6
## 3	8	galvf001	Freddy Galvis	6
## 4	8	urenr001	Richard Urena	6
## 5	4	jansd001	Danny Jansen	2
## 6	8	galvf001	Freddy Galvis	6
## 7	6	urenr001	Richard Urena	5
## 8	3	galvf001	Freddy Galvis	6
## 9	6	urenr001	Richard Urena	4
## 10	2	mckib001	Billy McKinney	9
## 11	4	urenr001	Richard Urena	5
## 12	4	hansa001	Alen Hanson	3
## 13	5	gurrl001	Lourdes Gurriel	4
## 14	5	hansa001	Alen Hanson	4

## 15	3	hansa001	Alen Hanson	9
## 16	9	drurb001	Brandon Drury	5
## 17	4	jansd001	Danny Jansen	10
## 18	4	brits001	Socrates Brito	8
## 19	5	mckib001	Billy McKinney	9
## 20	5	mckib001	Billy McKinney	9
## 21	5	brits001	Socrates Brito	8
## 22	5	mckib001	Billy McKinney	9
## 23	10	jansd001	Danny Jansen	2
## 24	7	brits001	Socrates Brito	8
## 25	2	urenr001	Richard Urena	6
## 26	7	drurb001	Brandon Drury	4
## 27	10	jansd001	Danny Jansen	2
## 28	4	brits001	Socrates Brito	9
## 29	9	hernt002	Teoscar Hernandez	7
## 30	9	hernt002	Teoscar Hernandez	7
## 31	7	jansd001	Danny Jansen	2
## 32	9	hernt002	Teoscar Hernandez	7
## 33	7	jansd001	Danny Jansen	2
## 34	9	hernt002	Teoscar Hernandez	7
## 35	9	hernt002	Teoscar Hernandez	7
## 36	4	hernt002	Teoscar Hernandez	7
## 37	5	brits001	Socrates Brito	9
## 38	7	jansd001	Danny Jansen	2
## 39	7	mckib001	Billy McKinney	9
## 40	7	jansd001	Danny Jansen	2
## 41	8	jansd001	Danny Jansen	2
## 42	9	maill001	Luke Maile	2
## 43	7	davij007	Jonathan Davis	8
## 44	9	mckib001	Billy McKinney	7
## 45	9	urenr001	Richard Urena	4
## 46	7	jansd001	Danny Jansen	2
## 47	7	urenr001	Richard Urena	4
## 48	7	jansd001	Danny Jansen	2
## 49	7	davij007	Jonathan Davis	8
## 50	9	jansd001	Danny Jansen	2
## 51	7	biggc002	Cavan Biggio	4
## 52	4	davij007	Jonathan Davis	8
## 53	4	drurb001	Brandon Drury	9
## 54	10	davij007	Jonathan Davis	8
## 55	6	jansd001	Danny Jansen	2
## 56	5	jansd001	Danny Jansen	2
## 57	8	maill001	Luke Maile	2
## 58	2	davij007	Jonathan Davis	8
## 59	6	maill001	Luke Maile	2
## 60	7	galvf001	Freddy Galvis	6
## 61	4	galvf001	Freddy Galvis	6
## 62	6	drurb001	Brandon Drury	9
## 63	8	galvf001	Freddy Galvis	6
## 64	8	drurb001	Brandon Drury	6
## 65	6	jansd001	Danny Jansen	2
## 66	6	jansd001	Danny Jansen	2
## 67	10	galvf001	Freddy Galvis	6
## 68	9	galvf001	Freddy Galvis	6

## 69	6	drurb001	Brandon Drury	9
## 70	3	jansd001	Danny Jansen	2
## 71	9	galvf001	Freddy Galvis	6
## 72	6	drurb001	Brandon Drury	4
## 73	6	jansd001	Danny Jansen	2
## 74	2	tellr001	Rowdy Tellez	3
## 75	3	galvf001	Freddy Galvis	6
## 76	2	mckib001	Billy McKinney	3
## 77	6	tellr001	Rowdy Tellez	3
## 78	3	drurb001	Brandon Drury	5
## 79	6	mckib001	Billy McKinney	9
## 80	9	galvf001	Freddy Galvis	6
## 81	6	drurb001	Brandon Drury	5
## 82	9	galvf001	Freddy Galvis	6
## 83	8	drurb001	Brandon Drury	5
## 84	6	drurb001	Brandon Drury	9
## 85	8	galvf001	Freddy Galvis	6
## 86	6	drurb001	Brandon Drury	9
## 87	2	tellr001	Rowdy Tellez	3
## 88	8	jansd001	Danny Jansen	2
## 89	7	tellr001	Rowdy Tellez	10
## 90	9	hernt002	Teoscar Hernandez	8
## 91	2	tellr001	Rowdy Tellez	10
## 92	9	jansd001	Danny Jansen	2
## 93	3	drurb001	Brandon Drury	5
## 94	9	jansd001	Danny Jansen	2
## 95	2	mckib001	Billy McKinney	9
## 96	6	hernt002	Teoscar Hernandez	8
## 97	6	hernt002	Teoscar Hernandez	8
## 98	8	biggc002	Cavan Biggio	4
## 99	2	mckib001	Billy McKinney	9
## 100	4	hernt002	Teoscar Hernandez	8
## 101	8	drurb001	Brandon Drury	5
## 102	8	jansd001	Danny Jansen	2
## 103	8	mckib001	Billy McKinney	7
## 104	2	hernt002	Teoscar Hernandez	8
## 105	2	drurb001	Brandon Drury	3
## 106	2	drurb001	Brandon Drury	3
## 107	9	hernt002	Teoscar Hernandez	8
## 108	10	hernt002	Teoscar Hernandez	8
## 109	8	drurb001	Brandon Drury	3
## 110	9	drurb001	Brandon Drury	5
## 111	8	mckib001	Billy McKinney	7
## 112	3	fishd001	Derek Fisher	8
## 113	9	hernt002	Teoscar Hernandez	8
## 114	8	drurb001	Brandon Drury	5
## 115	9	fishd001	Derek Fisher	8
## 116	8	drurb001	Brandon Drury	3
## 117	7	hernt002	Teoscar Hernandez	8
## 118	9	fishd001	Derek Fisher	8
## 119	3	fishd001	Derek Fisher	7
## 120	7	hernt002	Teoscar Hernandez	8
## 121	7	drurb001	Brandon Drury	5
## 122	7	drurb001	Brandon Drury	3

## 123	9	drurb001	Brandon Drury	7
## 124	5	fishd001	Derek Fisher	7
## 125	10	fishd001	Derek Fisher	7
## 126	7	mckib001	Billy McKinney	9
## 127	5	jansd001	Danny Jansen	2
## 128	2	fishd001	Derek Fisher	7
## 129	8	mcgur002	Reese McGuire	2
## 130	2	fishd001	Derek Fisher	7
## 131	4	drurb001	Brandon Drury	5
## 132	8	mckib001	Billy McKinney	7
## 133	8	drurb001	Brandon Drury	5
## 134	9	mcgur002	Reese McGuire	2
## 135	8	drurb001	Brandon Drury	7
## 136	3	fishd001	Derek Fisher	7
## 137	3	jansd001	Danny Jansen	2
## 138	9	drurb001	Brandon Drury	7
## 139	5	jansd001	Danny Jansen	2
## 140	8	taylb003	Beau Taylor	2
## 141	3	mcgur002	Reese McGuire	2
## 142	9	jansd001	Danny Jansen	2
## 143	8	mckib001	Billy McKinney	9
## 144	5	jansd001	Danny Jansen	2
## 145	2	davij007	Jonathan Davis	8
## 146	8	drurb001	Brandon Drury	3
## 147	2	mckib001	Billy McKinney	9
## 148	8	mckib001	Billy McKinney	7
## 149	4	jansd001	Danny Jansen	2
## 150	3	mckib001	Billy McKinney	7
## 151	8	mckib001	Billy McKinney	7
## 152	3	drurb001	Brandon Drury	5
## 153	2	tellr001	Rowdy Tellez	3
## 154	3	jansd001	Danny Jansen	2
## 155	3	urenr001	Richard Urena	6
## 156	6	drurb001	Brandon Drury	5
## 157	6	davij007	Jonathan Davis	8
## 158	3	alfoa002	Anthony Alford	8
## 159	5	fishd001	Derek Fisher	7
## 160	8	urenr001	Richard Urena	6
## 161	7	jansd001	Danny Jansen	2
## 162	6	davij007	Jonathan Davis	8
##	tor_batting_9_id	tor_batting_9_name	tor_batting_9_pos	galvf001 bichb001
## 1	galvf001	Freddy Galvis	6	1 0
## 2	maill001	Luke Maile	2	1 0
## 3	urenr001	Richard Urena	4	1 0
## 4	maill001	Luke Maile	2	0 0
## 5	galvf001	Freddy Galvis	6	1 0
## 6	urenr001	Richard Urena	4	1 0
## 7	maill001	Luke Maile	2	1 0
## 8	hansa001	Alen Hanson	4	1 0
## 9	maill001	Luke Maile	2	1 0
## 10	gurr1001	Lourdes Gurriel	4	1 0
## 11	jansd001	Danny Jansen	2	1 0
## 12	mckib001	Billy McKinney	9	1 0
## 13	brits001	Socrates Brito	9	1 0

## 14	maill001	Luke Maile	2	1	0
## 15	maill001	Luke Maile	2	1	0
## 16	jansd001	Danny Jansen	2	1	0
## 17	maill001	Luke Maile	2	1	0
## 18	jansd001	Danny Jansen	2	1	0
## 19	maill001	Luke Maile	2	1	0
## 20	jansd001	Danny Jansen	2	1	0
## 21	jansd001	Danny Jansen	2	1	0
## 22	maill001	Luke Maile	2	1	0
## 23	mckib001	Billy McKinney	9	1	0
## 24	maill001	Luke Maile	2	0	0
## 25	hansa001	Alen Hanson	9	0	0
## 26	jansd001	Danny Jansen	2	0	0
## 27	hansa001	Alen Hanson	9	0	0
## 28	maill001	Luke Maile	2	0	0
## 29	maill001	Luke Maile	2	1	0
## 30	jansd001	Danny Jansen	2	1	0
## 31	hansa001	Alen Hanson	9	1	0
## 32	maill001	Luke Maile	2	1	0
## 33	brits001	Socrates Brito	9	1	0
## 34	jansd001	Danny Jansen	2	1	0
## 35	jansd001	Danny Jansen	2	1	0
## 36	maill001	Luke Maile	2	1	0
## 37	maill001	Luke Maile	2	1	0
## 38	davij007	Jonathan Davis	8	1	0
## 39	maill001	Luke Maile	2	1	0
## 40	davij007	Jonathan Davis	8	1	0
## 41	thort002	Trent Thornton	1	1	0
## 42	jacke001	Edwin Jackson	1	1	0
## 43	jansd001	Danny Jansen	2	1	0
## 44	jansd001	Danny Jansen	2	1	0
## 45	maill001	Luke Maile	2	1	0
## 46	davij007	Jonathan Davis	8	1	0
## 47	maill001	Luke Maile	2	1	0
## 48	drurb001	Brandon Drury	4	1	0
## 49	maill001	Luke Maile	2	1	0
## 50	davij007	Jonathan Davis	8	1	0
## 51	jansd001	Danny Jansen	2	1	0
## 52	maill001	Luke Maile	2	1	0
## 53	jansd001	Danny Jansen	2	1	0
## 54	maill001	Luke Maile	2	1	0
## 55	davij007	Jonathan Davis	8	0	0
## 56	davij007	Jonathan Davis	8	1	0
## 57	jacke001	Edwin Jackson	1	1	0
## 58	strom001	Marcus Stroman	1	1	0
## 59	sanca006	Aaron Sanchez	1	1	0
## 60	jansd001	Danny Jansen	2	1	0
## 61	jansd001	Danny Jansen	2	1	0
## 62	maill001	Luke Maile	2	1	0
## 63	jansd001	Danny Jansen	2	1	0
## 64	maill001	Luke Maile	2	0	0
## 65	drurb001	Brandon Drury	5	1	0
## 66	drurb001	Brandon Drury	5	1	0
## 67	maill001	Luke Maile	2	1	0

## 68	jansd001	Danny Jansen	2	1	0
## 69	maill001	Luke Maile	2	1	0
## 70	drurb001	Brandon Drury	5	1	0
## 71	jansd001	Danny Jansen	2	1	0
## 72	maill001	Luke Maile	2	1	0
## 73	drurb001	Brandon Drury	5	1	0
## 74	drurb001	Brandon Drury	9	1	0
## 75	maill001	Luke Maile	2	1	0
## 76	drurb001	Brandon Drury	5	1	0
## 77	maill001	Luke Maile	2	1	0
## 78	jansd001	Danny Jansen	2	1	0
## 79	maill001	Luke Maile	2	1	0
## 80	jansd001	Danny Jansen	2	1	0
## 81	jansd001	Danny Jansen	2	1	0
## 82	jansd001	Danny Jansen	2	1	0
## 83	jansd001	Danny Jansen	2	1	0
## 84	maill001	Luke Maile	2	1	0
## 85	jansd001	Danny Jansen	2	1	0
## 86	jansd001	Danny Jansen	2	1	0
## 87	drurb001	Brandon Drury	9	1	0
## 88	drurb001	Brandon Drury	5	1	0
## 89	hernt002	Teoscar Hernandez	8	1	0
## 90	maill001	Luke Maile	2	1	0
## 91	hernt002	Teoscar Hernandez	8	1	0
## 92	hernt002	Teoscar Hernandez	8	1	0
## 93	maill001	Luke Maile	2	1	0
## 94	hernt002	Teoscar Hernandez	8	1	0
## 95	drurb001	Brandon Drury	5	1	0
## 96	mckib001	Billy McKinney	7	1	0
## 97	maill001	Luke Maile	2	1	0
## 98	drurb001	Brandon Drury	5	1	0
## 99	hernt002	Teoscar Hernandez	8	1	0
## 100	drurb001	Brandon Drury	3	1	0
## 101	maill001	Luke Maile	2	1	0
## 102	mckib001	Billy McKinney	9	1	0
## 103	maill001	Luke Maile	2	1	0
## 104	drurb001	Brandon Drury	5	1	0
## 105	hernt002	Teoscar Hernandez	8	1	0
## 106	hernt002	Teoscar Hernandez	8	1	0
## 107	mcgur002	Reese McGuire	2	1	0
## 108	jansd001	Danny Jansen	2	0	1
## 109	jansd001	Danny Jansen	2	1	1
## 110	mcgur002	Reese McGuire	2	1	1
## 111	jansd001	Danny Jansen	2	1	1
## 112	jansd001	Danny Jansen	2	1	1
## 113	mcgur002	Reese McGuire	2	1	1
## 114	jansd001	Danny Jansen	2	0	1
## 115	mcgur002	Reese McGuire	2	1	1
## 116	jansd001	Danny Jansen	2	1	1
## 117	mcgur002	Reese McGuire	2	1	1
## 118	mcgur002	Reese McGuire	2	1	1
## 119	jansd001	Danny Jansen	2	1	1
## 120	jansd001	Danny Jansen	2	1	1
## 121	mcgur002	Reese McGuire	2	1	1

## 122	jansd001	Danny Jansen	2	0	1			
## 123	mcgur002	Reese McGuire	2	0	1			
## 124	jansd001	Danny Jansen	2	0	1			
## 125	jansd001	Danny Jansen	2	0	1			
## 126	mcgur002	Reese McGuire	2	0	1			
## 127	mckib001	Billy McKinney	7	0	1			
## 128	boshb001	Buddy Boskers	1	0	1			
## 129	fontw001	Wilmer Font	1	0	1			
## 130	waguj001	Jacob Waguespack	1	0	1			
## 131	mcgur002	Reese McGuire	2	0	1			
## 132	jansd001	Danny Jansen	2	0	1			
## 133	mcgur002	Reese McGuire	2	0	1			
## 134	fishd001	Derek Fisher	7	0	1			
## 135	jansd001	Danny Jansen	2	0	1			
## 136	mcgur002	Reese McGuire	2	0	1			
## 137	fishd001	Derek Fisher	7	0	1			
## 138	mcgur002	Reese McGuire	2	0	1			
## 139	waguj001	Jacob Waguespack	1	0	1			
## 140	fontw001	Wilmer Font	1	0	1			
## 141	fishd001	Derek Fisher	7	0	1			
## 142	alfoa002	Anthony Alford	7	0	1			
## 143	fishd001	Derek Fisher	7	0	1			
## 144	urenr001	Richard Urena	4	0	1			
## 145	fishd001	Derek Fisher	7	0	1			
## 146	jansd001	Danny Jansen	2	0	1			
## 147	fishd001	Derek Fisher	7	0	1			
## 148	urenr001	Richard Urena	6	0	1			
## 149	davij007	Jonathan Davis	8	0	1			
## 150	urenr001	Richard Urena	5	0	1			
## 151	jansd001	Danny Jansen	2	0	1			
## 152	fishd001	Derek Fisher	7	0	1			
## 153	fishd001	Derek Fisher	9	0	1			
## 154	urenr001	Richard Urena	6	0	0			
## 155	maill001	Luke Maile	2	0	0			
## 156	fishd001	Derek Fisher	7	0	0			
## 157	jansd001	Danny Jansen	2	0	0			
## 158	fishd001	Derek Fisher	7	0	0			
## 159	maill001	Luke Maile	2	0	0			
## 160	fishd001	Derek Fisher	7	0	0			
## 161	urenr001	Richard Urena	6	0	0			
## 162	maill001	Luke Maile	2	0	0			
##	gurr1001	fishd001	pillk001	hernt002	davij007	gricr001	mckib001	smoaj001
## 1	1	0	1	1	0	1	0	1
## 2	1	0	1	1	0	1	1	1
## 3	0	0	1	1	0	0	1	1
## 4	1	0	1	1	0	1	0	1
## 5	1	0	0	1	0	1	1	1
## 6	0	0	0	1	0	0	1	1
## 7	1	0	0	1	0	1	1	1
## 8	1	0	0	0	0	1	1	0
## 9	0	0	0	1	0	1	1	0
## 10	1	0	0	1	0	1	1	1
## 11	0	0	0	1	0	1	1	0
## 12	1	0	0	1	0	1	1	0

## 13	1	0	0	0	0	1	1	1
## 14	1	0	0	1	0	1	1	1
## 15	1	0	0	1	0	1	0	1
## 16	1	0	0	0	0	1	1	1
## 17	0	0	0	1	0	1	1	1
## 18	0	0	0	1	0	1	0	1
## 19	0	0	0	1	0	1	1	1
## 20	0	0	0	1	0	1	1	1
## 21	0	0	0	1	0	1	1	1
## 22	0	0	0	1	0	1	1	1
## 23	0	0	0	1	0	1	1	1
## 24	0	0	0	0	0	1	1	1
## 25	0	0	0	1	0	1	0	1
## 26	0	0	0	1	0	1	1	1
## 27	0	0	0	1	0	1	0	1
## 28	0	0	0	0	0	1	1	1
## 29	0	0	0	1	0	1	0	1
## 30	0	0	0	1	0	1	1	1
## 31	0	0	0	1	0	1	0	1
## 32	0	0	0	1	0	1	0	1
## 33	0	0	0	0	0	1	1	1
## 34	0	0	0	1	0	1	0	1
## 35	0	0	0	1	0	1	0	1
## 36	0	0	0	1	0	1	1	1
## 37	0	0	0	0	0	1	1	1
## 38	0	0	0	1	1	1	0	1
## 39	0	0	0	1	0	1	1	1
## 40	0	0	0	1	1	1	0	1
## 41	0	0	0	0	1	1	1	1
## 42	0	0	0	1	0	1	1	0
## 43	0	0	0	0	1	1	1	1
## 44	0	0	0	0	0	1	1	1
## 45	0	0	0	0	0	1	1	1
## 46	0	0	0	0	1	1	1	1
## 47	0	0	0	0	1	1	1	1
## 48	0	0	0	0	1	1	1	1
## 49	0	0	0	0	1	1	0	1
## 50	0	0	0	0	1	0	1	1
## 51	1	0	0	0	0	1	0	1
## 52	1	0	0	0	1	1	0	1
## 53	1	0	0	0	0	1	0	1
## 54	1	0	0	0	1	1	0	0
## 55	1	0	0	0	1	1	0	1
## 56	1	0	0	0	1	1	0	1
## 57	1	0	0	0	1	1	0	0
## 58	1	0	0	0	1	1	0	1
## 59	0	0	0	0	0	1	0	1
## 60	1	0	0	0	0	1	0	1
## 61	1	0	0	1	0	1	0	1
## 62	1	0	0	1	0	1	0	1
## 63	1	0	0	1	0	1	0	0
## 64	1	0	0	1	0	1	0	1
## 65	1	0	0	1	0	1	0	1
## 66	1	0	0	1	0	1	0	1

## 67	1	0	0	1	0	1	0	1
## 68	1	0	0	1	0	0	0	1
## 69	1	0	0	0	0	1	0	1
## 70	1	0	0	1	0	1	0	0
## 71	1	0	0	1	0	1	0	0
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## 73	1	0	0	0	0	1	0	0
## 74	1	0	0	0	0	1	0	0
## 75	1	0	0	1	0	1	0	0
## 76	1	0	0	1	0	1	1	0
## 77	1	0	0	1	0	1	0	0
## 78	1	0	0	0	0	1	0	0
## 79	1	0	0	0	0	1	1	0
## 80	1	0	0	1	0	1	0	0
## 81	1	0	0	1	0	1	0	0
## 82	1	0	0	1	0	1	0	1
## 83	1	0	0	0	0	1	0	1
## 84	1	0	0	1	0	0	0	1
## 85	1	0	0	1	0	1	0	0
## 86	1	0	0	0	0	1	0	1
## 87	1	0	0	0	0	1	0	1
## 88	1	0	0	1	0	0	0	1
## 89	0	0	0	1	0	0	0	1
## 90	1	0	0	1	0	0	0	1
## 91	1	0	0	1	0	0	0	1
## 92	1	0	0	1	0	1	0	1
## 93	1	0	0	0	0	1	0	0
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## 95	1	0	0	0	0	1	1	1
## 96	1	0	0	1	0	1	1	1
## 97	1	0	0	1	0	1	0	1
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## 104	1	0	0	1	0	1	0	1
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## 106	1	0	0	1	0	1	0	0
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## 108	0	0	0	1	0	1	1	1
## 109	1	0	0	1	0	1	0	0
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## 111	0	0	0	1	0	1	1	1
## 112	1	1	0	0	0	0	0	1
## 113	1	1	0	1	0	1	0	1
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## 115	1	1	0	0	0	1	0	1
## 116	1	0	0	1	0	1	0	0
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## 118	1	1	0	0	0	1	0	1
## 119	0	1	0	1	0	1	0	0
## 120	0	1	0	1	0	1	0	1

## 121	0	1	0	1	0	1	0	1
## 122	0	1	0	1	0	1	0	1
## 123	0	0	0	1	0	1	1	1
## 124	0	1	0	1	0	1	0	0
## 125	0	1	0	1	0	1	0	1
## 126	0	1	0	0	0	1	1	1
## 127	0	0	0	1	0	1	1	1
## 128	0	1	0	1	0	1	0	1
## 129	0	0	0	1	0	1	1	0
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## 131	0	1	0	1	0	1	0	1
## 132	0	0	0	1	0	1	1	1
## 133	0	1	0	1	0	1	0	0
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## 135	0	0	0	1	0	1	0	1
## 136	0	1	0	1	0	1	0	1
## 137	0	1	0	1	0	1	0	0
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## 140	0	1	0	1	0	1	0	0
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## 144	0	0	0	1	1	1	0	0
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## 146	0	0	0	1	1	1	0	0
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## 148	0	0	0	1	0	1	1	0
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## 150	0	0	0	1	0	1	1	0
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## 154	1	0	0	1	0	1	0	1
## 155	1	0	0	1	1	1	0	0
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## 157	0	0	0	1	1	1	1	0
## 158	0	1	0	0	0	1	0	0
## 159	0	1	0	1	0	0	1	0
## 160	0	1	0	1	0	1	1	0
## 161	0	0	0	1	0	1	0	1
## 162	0	0	0	1	1	1	0	1
##	tellr001	sogae001	biggc002	guerv002	drurb001	jansd001	maill001	mcgur002
## 1	1	0	0	0	1	1	0	0
## 2	0	0	0	0	1	0	1	0
## 3	1	0	0	0	1	1	0	0
## 4	0	0	0	0	1	1	1	0
## 5	1	0	0	0	1	1	0	0
## 6	1	0	0	0	1	1	0	0
## 7	1	0	0	0	0	0	1	0
## 8	1	0	0	0	1	1	0	0
## 9	1	0	0	0	1	0	1	0
## 10	1	0	0	0	1	1	0	0
## 11	1	0	0	0	0	1	0	0

## 12	0	0	0	0	1	1	0	0
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## 14	0	0	0	0	0	0	1	0
## 15	1	0	0	0	1	0	1	0
## 16	1	0	0	0	1	1	0	0
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## 18	1	1	0	0	0	1	0	0
## 19	1	1	0	0	1	0	1	0
## 20	1	1	0	0	1	1	0	0
## 21	0	1	0	0	1	1	0	0
## 22	1	1	0	0	1	0	1	0
## 23	1	0	0	0	1	1	0	0
## 24	1	1	0	0	1	0	1	0
## 25	1	1	0	0	1	1	0	0
## 26	1	1	0	1	1	1	0	0
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## 29	1	1	0	1	1	0	1	0
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## 33	1	1	0	1	0	1	0	0
## 34	1	1	0	1	1	1	0	0
## 35	1	1	0	1	1	1	0	0
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## 37	1	1	0	0	1	0	1	0
## 38	1	1	0	1	0	1	0	0
## 39	1	1	0	1	0	0	1	0
## 40	1	0	0	1	1	1	0	0
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## 42	1	0	0	1	1	0	1	0
## 43	0	1	0	1	1	1	0	0
## 44	1	1	0	1	1	1	0	0
## 45	1	0	0	1	1	0	1	0
## 46	1	1	0	1	0	1	0	0
## 47	0	0	0	0	1	1	1	0
## 48	1	0	0	1	1	1	0	0
## 49	1	1	0	1	1	0	1	0
## 50	1	1	0	1	1	1	0	0
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## 52	1	0	1	1	0	0	1	0
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## 54	1	1	1	1	0	0	1	0
## 55	1	1	0	1	1	1	0	0
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## 57	1	0	1	1	0	0	1	0
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## 60	1	1	1	1	0	1	0	0
## 61	0	0	1	1	1	1	0	0
## 62	0	1	0	1	1	0	1	0
## 63	1	1	1	1	0	1	0	0
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## 68	1	1	1	1	0	1	0	0
## 69	1	0	1	1	1	0	1	0
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## 73	1	1	1	1	1	1	0	0
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## 75	1	1	1	1	0	0	1	0
## 76	0	1	0	1	1	1	0	0
## 77	1	1	1	1	0	0	1	0
## 78	1	1	1	1	1	1	0	0
## 79	1	1	1	1	0	0	1	0
## 80	1	1	1	1	0	1	0	0
## 81	1	0	1	1	1	1	0	0
## 82	0	1	1	1	0	1	0	0
## 83	0	1	1	1	1	1	0	0
## 84	1	1	1	0	1	0	1	0
## 85	1	1	1	1	0	1	0	0
## 86	0	1	1	1	1	1	0	0
## 87	1	0	1	1	1	1	0	0
## 88	1	1	1	0	1	1	0	0
## 89	1	1	1	1	1	1	0	0
## 90	0	0	1	1	1	1	1	0
## 91	1	1	1	1	0	1	0	0
## 92	0	1	1	1	0	1	0	0
## 93	1	1	1	1	1	0	1	0
## 94	0	1	1	1	0	1	0	0
## 95	0	1	1	0	1	1	0	0
## 96	0	1	0	1	0	1	0	0
## 97	0	1	1	1	0	0	1	0
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## 101	0	1	0	1	1	0	1	0
## 102	0	1	1	1	0	1	0	0
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## 111	0	0	1	1	0	1	0	0
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## 114	0	0	1	1	1	1	0	0
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## 116	0	0	1	1	1	1	0	0
## 117	0	0	0	0	1	0	0	1
## 118	0	0	1	1	0	0	0	1
## 119	0	0	1	1	1	1	0	0

## 120	0	0	1	1	0	1	0	0
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## 123	0	0	1	1	1	0	0	1
## 124	1	0	1	1	1	1	0	0
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## 127	1	0	1	0	1	1	0	0
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## 129	1	0	1	0	1	0	0	1
## 130	1	0	1	1	0	1	0	0
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## 132	1	0	1	1	0	1	0	0
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## 135	1	0	1	1	1	1	0	0
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## 139	0	0	1	0	1	1	0	0
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## 154	0	0	1	1	0	1	0	0
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## 156	1	0	1	0	1	0	0	1
## 157	1	0	1	1	1	1	0	0
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## 159	1	0	1	1	1	0	1	0
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## 161	1	0	1	0	1	1	0	0
## 162	1	0	1	0	0	0	1	0
##	galvf001_ops_game	bichb001_ops_game	gurrl001_ops_game	fishd001_ops_game				
## 1	0.000	0.000	0.000	0.000				
## 2	1.333	0.000	0.250	0.000				
## 3	0.750	0.000	0.000	0.000				
## 4	0.000	0.000	0.000	0.000				
## 5	1.667	0.000	0.000	0.000				
## 6	0.500	0.000	0.000	0.000				
## 7	0.000	0.000	1.250	0.000				
## 8	2.000	0.000	0.000	0.000				
## 9	1.667	0.000	0.000	0.000				
## 10	1.400	0.000	0.250	0.000				

## 11	0.750	0.000	0.000	0.000
## 12	1.000	0.000	1.250	0.000
## 13	2.750	0.000	1.250	0.000
## 14	0.600	0.000	1.000	0.000
## 15	0.000	0.000	1.000	0.000
## 16	1.400	0.000	0.000	0.000
## 17	0.400	0.000	0.000	0.000
## 18	0.400	0.000	0.000	0.000
## 19	1.000	0.000	0.000	0.000
## 20	0.000	0.000	0.000	0.000
## 21	0.000	0.000	0.000	0.000
## 22	0.800	0.000	0.000	0.000
## 23	0.800	0.000	0.000	0.000
## 24	0.000	0.000	0.000	0.000
## 25	0.000	0.000	0.000	0.000
## 26	0.000	0.000	0.000	0.000
## 27	0.000	0.000	0.000	0.000
## 28	0.000	0.000	0.000	0.000
## 29	0.500	0.000	0.000	0.000
## 30	0.000	0.000	0.000	0.000
## 31	0.000	0.000	0.000	0.000
## 32	1.100	0.000	0.000	0.000
## 33	0.600	0.000	0.000	0.000
## 34	0.000	0.000	0.000	0.000
## 35	0.667	0.000	0.000	0.000
## 36	0.000	0.000	0.000	0.000
## 37	0.500	0.000	0.000	0.000
## 38	0.000	0.000	0.000	0.000
## 39	1.750	0.000	0.000	0.000
## 40	0.500	0.000	0.000	0.000
## 41	0.600	0.000	0.000	0.000
## 42	1.250	0.000	0.000	0.000
## 43	1.250	0.000	0.000	0.000
## 44	0.400	0.000	0.000	0.000
## 45	1.500	0.000	0.000	0.000
## 46	0.250	0.000	0.000	0.000
## 47	0.250	0.000	0.000	0.000
## 48	1.250	0.000	0.000	0.000
## 49	0.333	0.000	0.000	0.000
## 50	1.000	0.000	0.000	0.000
## 51	2.333	0.000	1.667	0.000
## 52	0.500	0.000	1.667	0.000
## 53	0.000	0.000	3.000	0.000
## 54	1.833	0.000	1.167	0.000
## 55	0.000	0.000	0.750	0.000
## 56	0.600	0.000	1.167	0.000
## 57	0.200	0.000	0.600	0.000
## 58	0.000	0.000	0.500	0.000
## 59	0.000	0.000	0.000	0.000
## 60	1.667	0.000	0.250	0.000
## 61	0.000	0.000	0.400	0.000
## 62	0.000	0.000	0.500	0.000
## 63	0.667	0.000	1.000	0.000
## 64	0.000	0.000	1.000	0.000

## 65	0.500	0.000	2.000	0.000
## 66	0.500	0.000	0.250	0.000
## 67	0.000	0.000	1.100	0.000
## 68	1.267	0.000	1.800	0.000
## 69	1.417	0.000	0.500	0.000
## 70	1.000	0.000	0.000	0.000
## 71	1.800	0.000	1.650	0.000
## 72	1.000	0.000	0.000	0.000
## 73	0.000	0.000	1.667	0.000
## 74	0.750	0.000	0.200	0.000
## 75	1.000	0.000	2.000	0.000
## 76	0.800	0.000	0.000	0.000
## 77	1.250	0.000	0.800	0.000
## 78	1.267	0.000	1.400	0.000
## 79	1.400	0.000	1.400	0.000
## 80	0.500	0.000	1.000	0.000
## 81	0.500	0.000	2.600	0.000
## 82	0.500	0.000	2.500	0.000
## 83	0.000	0.000	0.833	0.000
## 84	0.250	0.000	0.500	0.000
## 85	3.250	0.000	1.800	0.000
## 86	0.500	0.000	0.400	0.000
## 87	2.133	0.000	1.000	0.000
## 88	1.600	0.000	0.000	0.000
## 89	0.500	0.000	0.000	0.000
## 90	0.000	0.000	0.250	0.000
## 91	1.500	0.000	1.750	0.000
## 92	0.500	0.000	0.000	0.000
## 93	0.250	0.000	0.500	0.000
## 94	0.500	0.000	0.500	0.000
## 95	0.800	0.000	0.000	0.000
## 96	1.000	0.000	1.800	0.000
## 97	0.000	0.000	1.400	0.000
## 98	0.000	0.000	0.000	0.000
## 99	1.400	0.000	0.400	0.000
## 100	1.400	0.000	0.600	0.000
## 101	0.500	0.000	2.000	0.000
## 102	0.000	0.000	0.250	0.000
## 103	0.400	0.000	0.000	0.000
## 104	0.000	0.000	0.333	0.000
## 105	0.750	0.000	0.000	0.000
## 106	0.333	0.000	1.167	0.000
## 107	0.400	0.000	0.800	0.000
## 108	0.000	0.500	0.000	0.000
## 109	0.800	1.100	0.933	0.000
## 110	1.250	2.000	0.500	0.000
## 111	0.200	1.100	0.000	0.000
## 112	2.250	0.900	0.750	0.500
## 113	2.667	1.000	0.500	0.000
## 114	0.000	1.600	0.400	0.000
## 115	1.000	2.000	0.000	0.000
## 116	0.000	1.000	0.000	0.000
## 117	0.750	1.167	1.250	1.250
## 118	0.800	1.600	0.800	1.250

## 119	0.750	0.250	0.000	0.333
## 120	0.000	0.200	0.000	0.833
## 121	0.000	1.000	0.000	0.000
## 122	0.000	1.667	0.000	0.933
## 123	0.000	0.250	0.000	0.000
## 124	0.000	0.600	0.000	0.000
## 125	0.000	0.000	0.000	1.667
## 126	0.000	1.400	0.000	0.250
## 127	0.000	0.000	0.000	0.000
## 128	0.000	2.500	0.000	1.667
## 129	0.000	0.400	0.000	0.000
## 130	0.000	0.000	0.000	0.000
## 131	0.000	1.200	0.000	0.650
## 132	0.000	2.000	0.000	0.000
## 133	0.000	1.250	0.000	1.167
## 134	0.000	0.500	0.000	0.000
## 135	0.000	0.400	0.000	0.000
## 136	0.000	0.600	0.000	1.833
## 137	0.000	0.800	0.000	0.000
## 138	0.000	0.000	0.000	0.000
## 139	0.000	0.833	0.000	0.000
## 140	0.000	0.500	0.000	1.750
## 141	0.000	2.000	0.000	0.250
## 142	0.000	0.250	0.000	0.000
## 143	0.000	0.000	0.000	0.000
## 144	0.000	0.500	0.000	0.000
## 145	0.000	0.400	0.000	0.500
## 146	0.000	0.500	0.000	0.000
## 147	0.000	0.900	0.000	0.250
## 148	0.000	2.067	0.000	0.000
## 149	0.000	0.333	1.750	0.000
## 150	0.000	1.250	0.000	0.000
## 151	0.000	0.400	0.450	0.000
## 152	0.000	1.000	0.000	0.500
## 153	0.000	0.250	1.400	0.833
## 154	0.000	0.000	0.000	0.000
## 155	0.000	0.000	0.000	0.000
## 156	0.000	0.000	0.000	0.000
## 157	0.000	0.000	0.000	0.000
## 158	0.000	0.000	0.000	1.250
## 159	0.000	0.000	0.000	0.667
## 160	0.000	0.000	0.000	0.000
## 161	0.000	0.000	0.000	0.000
## 162	0.000	0.000	0.000	0.000
##	pillk001_ops_game	hernt002_ops_game	davij007_ops_game	gricr001_ops_game
## 1	0.0	0.500	0.000	0.000
## 2	0.0	0.500	0.000	0.250
## 3	0.0	0.500	0.000	0.000
## 4	0.5	0.000	0.000	0.200
## 5	0.0	1.000	0.000	2.000
## 6	0.0	0.500	0.000	0.000
## 7	0.0	0.833	0.000	3.250
## 8	0.0	0.000	0.000	0.200
## 9	0.0	0.250	0.000	0.000

## 10	0.0	0.800	0.000	0.750
## 11	0.0	0.000	0.000	0.000
## 12	0.0	0.200	0.000	0.800
## 13	0.0	0.000	0.000	0.250
## 14	0.0	1.250	0.000	0.833
## 15	0.0	0.500	0.000	0.750
## 16	0.0	0.000	0.000	0.400
## 17	0.0	2.250	0.000	2.000
## 18	0.0	0.833	0.000	0.600
## 19	0.0	0.500	0.000	0.500
## 20	0.0	1.250	0.000	1.750
## 21	0.0	0.250	0.000	0.000
## 22	0.0	0.833	0.000	0.000
## 23	0.0	0.000	0.000	0.400
## 24	0.0	0.000	0.000	1.000
## 25	0.0	0.667	0.000	0.000
## 26	0.0	0.500	0.000	0.500
## 27	0.0	0.000	0.000	1.400
## 28	0.0	0.000	0.000	0.400
## 29	0.0	1.000	0.000	1.000
## 30	0.0	0.000	0.000	1.250
## 31	0.0	0.250	0.000	1.250
## 32	0.0	0.400	0.000	0.667
## 33	0.0	0.000	0.000	0.250
## 34	0.0	0.667	0.000	1.667
## 35	0.0	0.000	0.000	0.500
## 36	0.0	0.000	0.000	0.500
## 37	0.0	0.000	0.000	0.000
## 38	0.0	2.750	0.000	1.250
## 39	0.0	0.000	0.000	2.250
## 40	0.0	0.667	0.000	0.250
## 41	0.0	0.000	0.000	0.650
## 42	0.0	0.000	0.000	0.833
## 43	0.0	0.000	0.000	0.000
## 44	0.0	0.000	0.000	0.800
## 45	0.0	0.000	0.000	0.500
## 46	0.0	0.000	0.500	0.000
## 47	0.0	0.000	0.500	0.000
## 48	0.0	0.000	0.400	1.750
## 49	0.0	0.000	0.000	0.333
## 50	0.0	0.000	0.000	0.000
## 51	0.0	0.000	0.000	0.250
## 52	0.0	0.000	0.667	0.000
## 53	0.0	0.000	0.000	1.100
## 54	0.0	0.000	1.250	0.000
## 55	0.0	0.000	0.000	0.500
## 56	0.0	0.000	1.000	0.400
## 57	0.0	0.000	1.250	1.200
## 58	0.0	0.000	0.000	0.000
## 59	0.0	0.000	0.000	0.000
## 60	0.0	0.000	0.000	1.250
## 61	0.0	1.200	0.000	2.600
## 62	0.0	0.000	0.000	1.000
## 63	0.0	1.667	0.000	0.500

## 64	0.0	0.500	0.000	0.000
## 65	0.0	0.750	0.000	0.000
## 66	0.0	0.500	0.000	1.167
## 67	0.0	1.000	0.000	0.000
## 68	0.0	0.650	0.000	0.000
## 69	0.0	0.000	0.000	0.000
## 70	0.0	0.500	0.000	0.000
## 71	0.0	2.600	0.000	0.900
## 72	0.0	0.000	0.000	1.750
## 73	0.0	0.000	0.000	0.667
## 74	0.0	0.000	0.000	0.200
## 75	0.0	1.000	0.000	1.000
## 76	0.0	0.400	0.000	2.300
## 77	0.0	0.800	0.000	0.000
## 78	0.0	0.000	0.000	0.000
## 79	0.0	0.000	0.000	1.400
## 80	0.0	0.000	0.000	0.500
## 81	0.0	0.000	0.000	0.650
## 82	0.0	0.000	0.000	1.250
## 83	0.0	0.000	0.000	0.500
## 84	0.0	0.500	0.000	0.000
## 85	0.0	1.400	0.000	1.600
## 86	0.0	0.000	0.000	0.500
## 87	0.0	0.000	0.000	0.000
## 88	0.0	0.500	0.000	0.000
## 89	0.0	1.000	0.000	0.000
## 90	0.0	0.000	0.000	0.000
## 91	0.0	0.500	0.000	0.000
## 92	0.0	0.000	0.000	0.000
## 93	0.0	0.000	0.000	1.000
## 94	0.0	0.000	0.000	1.250
## 95	0.0	0.000	0.000	1.350
## 96	0.0	1.250	0.000	0.600
## 97	0.0	5.000	0.000	0.400
## 98	0.0	0.000	0.000	0.000
## 99	0.0	1.850	0.000	0.000
## 100	0.0	1.000	0.000	0.833
## 101	0.0	0.750	0.000	0.000
## 102	0.0	0.000	0.000	0.000
## 103	0.0	0.833	0.000	0.500
## 104	0.0	0.000	0.000	0.000
## 105	0.0	0.000	0.000	0.500
## 106	0.0	1.667	0.000	0.733
## 107	0.0	1.800	0.000	0.000
## 108	0.0	1.833	0.000	2.200
## 109	0.0	0.400	0.000	0.400
## 110	0.0	0.000	0.000	0.000
## 111	0.0	0.400	0.000	1.850
## 112	0.0	0.000	0.000	0.000
## 113	0.0	1.000	0.000	0.000
## 114	0.0	0.800	0.000	2.000
## 115	0.0	0.000	0.000	1.250
## 116	0.0	0.250	0.000	0.500
## 117	0.0	0.000	0.000	1.833

## 118	0.0	0.000	0.000	0.000
## 119	0.0	3.417	0.000	1.250
## 120	0.0	2.750	0.000	0.000
## 121	0.0	0.000	0.000	0.000
## 122	0.0	0.900	0.000	2.000
## 123	0.0	1.250	0.000	1.750
## 124	0.0	0.250	0.000	1.500
## 125	0.0	1.250	0.000	1.833
## 126	0.0	0.000	0.000	0.000
## 127	0.0	0.000	0.000	0.667
## 128	0.0	0.333	0.000	0.000
## 129	0.0	0.000	0.000	0.750
## 130	0.0	0.000	0.000	0.500
## 131	0.0	1.250	0.000	0.600
## 132	0.0	2.750	0.000	0.900
## 133	0.0	0.000	0.000	0.000
## 134	0.0	0.000	0.000	0.000
## 135	0.0	0.750	0.000	1.250
## 136	0.0	0.650	0.000	0.200
## 137	0.0	1.250	0.000	0.500
## 138	0.0	0.000	0.000	0.000
## 139	0.0	0.000	0.000	1.583
## 140	0.0	1.000	0.000	0.000
## 141	0.0	0.500	0.000	0.000
## 142	0.0	0.000	0.000	1.000
## 143	0.0	0.000	1.250	0.000
## 144	0.0	0.000	0.500	1.250
## 145	0.0	0.000	0.667	0.750
## 146	0.0	1.750	0.000	1.250
## 147	0.0	0.000	0.000	0.750
## 148	0.0	0.800	0.000	1.000
## 149	0.0	0.500	0.250	0.667
## 150	0.0	0.250	0.000	2.500
## 151	0.0	0.500	0.000	1.000
## 152	0.0	0.833	0.000	1.133
## 153	0.0	0.000	0.000	0.750
## 154	0.0	2.417	0.000	0.000
## 155	0.0	0.750	0.667	0.750
## 156	0.0	0.000	0.000	1.333
## 157	0.0	0.286	1.429	1.262
## 158	0.0	0.000	0.000	0.000
## 159	0.0	0.667	0.000	0.000
## 160	0.0	4.000	0.000	0.000
## 161	0.0	2.750	0.000	1.000
## 162	0.0	2.417	1.250	0.000
##	mckib001_ops_game	smoaj001_ops_game	tellr001_ops_game	sogae001_ops_game
## 1	0.000	0.000	0.333	0.000
## 2	0.500	1.000	0.000	0.000
## 3	0.833	1.833	0.500	0.000
## 4	0.000	0.200	0.000	0.000
## 5	0.250	0.250	0.667	0.000
## 6	0.000	1.000	1.833	0.000
## 7	0.000	0.250	0.500	0.000
## 8	0.500	0.000	0.200	0.000

## 9	0.333	0.000	0.250	0.000
## 10	1.250	0.600	1.167	0.000
## 11	1.000	0.000	0.000	0.000
## 12	1.417	0.000	0.000	0.000
## 13	0.000	1.833	1.750	0.000
## 14	0.000	0.400	0.000	0.000
## 15	0.000	1.250	0.000	0.000
## 16	2.200	1.300	0.000	0.000
## 17	0.000	1.750	0.000	0.000
## 18	0.000	0.933	0.500	1.400
## 19	0.667	0.500	0.000	0.833
## 20	0.500	1.250	0.500	1.250
## 21	1.250	0.750	0.000	0.500
## 22	1.150	1.750	2.000	0.667
## 23	0.667	2.200	1.000	0.000
## 24	0.500	0.250	2.000	1.400
## 25	0.000	0.000	0.333	0.500
## 26	0.000	0.500	0.000	2.417
## 27	0.000	0.650	0.500	1.750
## 28	0.400	0.333	0.600	1.667
## 29	0.000	0.250	0.000	0.000
## 30	0.000	0.750	2.417	0.000
## 31	0.000	0.833	1.250	0.250
## 32	0.000	0.167	0.400	1.100
## 33	1.000	0.250	1.000	1.600
## 34	0.000	1.667	0.500	1.833
## 35	0.000	0.250	0.667	0.000
## 36	0.750	0.500	0.000	0.000
## 37	1.667	0.250	0.000	0.250
## 38	0.000	0.000	1.167	0.500
## 39	0.750	0.000	0.000	0.000
## 40	0.000	0.000	0.500	0.000
## 41	0.900	0.400	0.000	1.100
## 42	0.000	0.000	0.750	0.000
## 43	0.000	0.500	0.000	0.333
## 44	2.000	2.800	0.400	1.100
## 45	0.000	0.000	2.000	0.000
## 46	1.250	0.833	0.500	0.000
## 47	0.000	0.500	0.000	0.000
## 48	0.250	0.400	2.000	0.000
## 49	0.000	1.600	1.500	0.000
## 50	0.000	1.250	1.167	0.000
## 51	0.000	0.250	0.000	0.000
## 52	0.000	1.833	0.000	0.000
## 53	0.000	2.000	0.000	1.000
## 54	0.000	0.000	0.000	0.250
## 55	0.000	1.000	0.750	0.250
## 56	0.000	1.000	0.650	0.667
## 57	0.000	0.000	0.000	0.000
## 58	0.000	1.250	0.000	0.000
## 59	0.000	1.250	0.000	0.800
## 60	0.000	0.833	0.500	1.750
## 61	0.000	0.000	0.000	0.000
## 62	0.000	0.500	0.000	2.000

## 63	0.000	0.000	0.000	0.000
## 64	0.000	0.833	0.000	0.000
## 65	0.000	0.500	0.000	0.000
## 66	0.000	0.000	0.000	1.750
## 67	0.000	0.400	1.400	0.000
## 68	0.000	0.400	0.600	0.667
## 69	0.000	0.250	0.000	0.000
## 70	0.000	0.000	0.000	1.167
## 71	0.000	0.000	1.000	2.467
## 72	0.000	0.000	0.000	0.800
## 73	0.000	0.000	0.667	0.000
## 74	0.000	0.000	2.500	0.800
## 75	0.000	0.000	0.500	3.333
## 76	0.200	0.000	0.000	1.333
## 77	0.000	0.000	1.833	0.200
## 78	0.000	0.000	1.750	1.000
## 79	0.000	0.000	1.150	0.933
## 80	0.000	0.000	0.000	0.000
## 81	0.000	0.000	0.500	0.000
## 82	0.000	0.833	0.000	1.750
## 83	0.000	0.000	0.000	1.417
## 84	0.000	2.000	0.500	0.800
## 85	0.000	0.000	0.400	0.650
## 86	0.000	0.000	0.000	0.400
## 87	0.000	1.250	1.750	0.000
## 88	0.000	1.267	0.400	0.600
## 89	0.000	0.000	0.000	0.000
## 90	0.000	0.000	0.000	0.000
## 91	0.000	0.500	0.750	0.000
## 92	0.000	0.000	0.000	1.000
## 93	0.000	0.000	0.500	0.600
## 94	0.000	0.000	0.000	1.833
## 95	1.750	0.600	0.000	1.400
## 96	1.000	2.467	0.000	1.000
## 97	0.000	0.500	0.000	0.200
## 98	0.000	0.500	0.000	0.000
## 99	0.650	0.400	0.000	1.167
## 100	0.000	0.000	0.000	1.000
## 101	0.000	0.250	0.000	0.500
## 102	1.667	2.667	0.000	0.500
## 103	0.000	1.400	0.000	0.200
## 104	0.000	0.000	0.000	0.750
## 105	0.000	0.833	0.000	0.000
## 106	0.000	0.000	0.000	0.667
## 107	1.400	1.933	0.000	0.000
## 108	0.000	0.200	0.000	0.000
## 109	0.000	0.000	0.000	0.000
## 110	0.000	0.833	0.000	0.000
## 111	1.400	0.200	0.000	0.000
## 112	0.000	0.500	0.000	0.000
## 113	0.000	0.000	0.000	0.000
## 114	0.000	0.250	0.000	0.000
## 115	0.000	0.500	0.000	0.000
## 116	0.000	0.000	0.000	0.000

## 117	0.000	0.500	0.000	0.000
## 118	0.000	0.200	0.000	0.000
## 119	0.000	0.000	0.000	0.000
## 120	0.000	0.250	0.000	0.000
## 121	0.000	0.667	0.000	0.000
## 122	0.000	2.200	0.000	0.000
## 123	1.833	0.833	0.000	0.000
## 124	0.000	0.000	0.833	0.000
## 125	0.000	0.750	0.000	0.000
## 126	0.500	1.750	0.500	0.000
## 127	0.000	0.000	0.333	0.000
## 128	0.000	0.750	0.000	0.000
## 129	1.250	0.000	1.250	0.000
## 130	1.000	0.000	0.000	0.000
## 131	0.000	0.650	0.000	0.000
## 132	0.750	0.000	0.900	0.000
## 133	0.000	0.000	0.833	0.000
## 134	0.000	2.417	0.500	0.000
## 135	0.000	0.833	0.200	0.000
## 136	0.000	0.833	0.000	0.000
## 137	0.000	0.000	0.250	0.000
## 138	0.000	0.000	0.000	0.000
## 139	0.250	0.000	0.000	0.000
## 140	0.000	0.000	1.250	0.000
## 141	0.000	0.250	0.000	0.000
## 142	0.000	0.000	0.000	0.000
## 143	0.000	1.167	1.250	0.000
## 144	0.000	0.000	0.750	0.000
## 145	0.000	0.500	1.750	0.000
## 146	0.000	0.000	1.250	0.000
## 147	0.000	0.200	0.000	0.000
## 148	0.400	0.000	0.667	0.000
## 149	0.000	0.000	0.000	0.000
## 150	0.833	0.000	0.000	0.000
## 151	0.000	1.250	0.000	0.000
## 152	0.000	0.000	1.300	0.000
## 153	0.000	0.000	1.167	0.000
## 154	0.000	1.833	0.000	0.000
## 155	0.000	0.000	0.000	0.000
## 156	2.000	0.000	0.250	0.000
## 157	0.800	0.000	1.000	0.000
## 158	0.000	0.000	1.250	0.000
## 159	2.750	0.000	2.500	0.000
## 160	0.000	0.000	0.000	0.000
## 161	0.000	0.833	1.250	0.000
## 162	0.000	1.500	0.750	0.000
##	biggc002_ops_game	guerv002_ops_game	drurb001_ops_game	jansd001_ops_game
## 1	0.000	0.000	0.500	0.000
## 2	0.000	0.000	1.000	0.000
## 3	0.000	0.000	0.750	0.500
## 4	0.000	0.000	0.400	0.400
## 5	0.000	0.000	0.500	0.000
## 6	0.000	0.000	0.500	0.250
## 7	0.000	0.000	0.000	0.000

## 8	0.000	0.000	0.200	0.250
## 9	0.000	0.000	0.500	0.000
## 10	0.000	0.000	0.000	0.750
## 11	0.000	0.000	0.000	0.667
## 12	0.000	0.000	0.200	0.500
## 13	0.000	0.000	0.000	0.500
## 14	0.000	0.000	0.000	0.000
## 15	0.000	0.000	0.000	0.000
## 16	0.000	0.000	0.000	0.250
## 17	0.000	0.000	1.167	0.500
## 18	0.000	0.000	0.000	0.500
## 19	0.000	0.000	0.500	0.000
## 20	0.000	0.000	0.250	0.500
## 21	0.000	0.000	1.250	1.167
## 22	0.000	0.000	2.550	0.000
## 23	0.000	0.000	1.250	1.167
## 24	0.000	0.000	0.000	0.000
## 25	0.000	0.000	0.000	0.000
## 26	0.000	0.750	1.250	0.667
## 27	0.000	0.650	2.333	0.917
## 28	0.000	0.500	1.400	0.000
## 29	0.000	0.500	1.250	0.000
## 30	0.000	0.000	0.000	1.000
## 31	0.000	0.000	0.750	0.000
## 32	0.000	0.400	0.800	0.000
## 33	0.000	0.833	0.000	0.500
## 34	0.000	0.000	0.000	0.000
## 35	0.000	0.000	0.000	0.333
## 36	0.000	0.500	0.667	0.000
## 37	0.000	0.000	0.000	0.000
## 38	0.000	0.000	0.000	0.000
## 39	0.000	2.000	0.000	0.000
## 40	0.000	0.750	0.000	0.000
## 41	0.000	3.050	0.000	0.250
## 42	0.000	0.250	0.833	0.000
## 43	0.000	0.000	0.500	0.333
## 44	0.000	1.400	0.700	1.850
## 45	0.000	1.000	0.000	0.000
## 46	0.000	1.750	0.000	1.750
## 47	0.000	0.000	0.000	0.000
## 48	0.000	0.800	1.750	0.500
## 49	0.000	1.167	1.000	0.000
## 50	0.000	0.000	1.250	0.000
## 51	0.000	0.000	0.000	0.000
## 52	0.000	0.250	0.000	0.000
## 53	2.250	1.400	0.500	0.000
## 54	0.250	0.250	0.000	0.000
## 55	0.000	0.000	1.000	0.000
## 56	0.000	0.000	1.000	0.400
## 57	1.000	2.550	0.000	0.000
## 58	0.500	0.750	0.000	1.167
## 59	0.250	0.500	0.250	0.000
## 60	0.250	0.500	0.000	0.000
## 61	1.250	1.850	1.400	0.833

## 62	0.000	0.000	0.667	0.000
## 63	0.250	0.000	0.000	0.333
## 64	0.250	1.000	0.333	0.000
## 65	0.000	0.000	0.000	1.750
## 66	0.000	0.250	0.333	0.000
## 67	0.400	1.400	0.000	0.000
## 68	2.600	1.600	0.000	1.200
## 69	0.750	0.000	0.000	0.000
## 70	0.500	0.000	0.667	0.000
## 71	1.000	0.400	0.000	0.000
## 72	5.000	0.000	0.000	0.000
## 73	0.000	0.000	0.000	0.000
## 74	0.250	1.267	0.000	0.500
## 75	0.200	0.200	0.000	0.000
## 76	0.000	0.400	0.500	0.000
## 77	0.800	1.100	0.000	0.000
## 78	0.900	0.000	0.833	0.500
## 79	0.400	1.400	0.000	0.000
## 80	1.000	0.500	0.000	1.000
## 81	1.550	0.200	0.500	3.000
## 82	0.250	0.500	0.000	0.667
## 83	1.833	1.833	0.333	1.250
## 84	0.000	0.000	0.333	0.000
## 85	1.400	1.267	0.000	0.000
## 86	1.250	0.900	0.250	2.500
## 87	0.250	0.200	2.500	1.250
## 88	0.600	0.000	1.250	3.250
## 89	0.000	0.250	2.667	1.000
## 90	0.500	0.667	0.000	0.000
## 91	0.250	1.250	0.000	1.250
## 92	0.500	0.500	0.000	0.667
## 93	0.833	0.500	0.500	0.000
## 94	0.000	0.000	0.000	1.000
## 95	0.400	0.000	0.583	0.500
## 96	0.000	0.650	0.000	0.650
## 97	0.500	0.000	0.000	0.000
## 98	0.333	0.333	0.667	0.333
## 99	0.650	1.200	0.000	0.400
## 100	0.250	1.750	1.250	0.000
## 101	0.000	0.250	0.000	0.000
## 102	0.000	1.333	0.000	0.333
## 103	0.250	1.750	0.000	0.000
## 104	0.000	0.333	0.000	0.000
## 105	0.000	0.250	1.000	0.333
## 106	2.000	1.333	2.333	0.000
## 107	0.400	1.400	0.200	0.000
## 108	1.800	0.650	0.400	0.500
## 109	0.200	1.400	0.200	1.167
## 110	1.267	0.000	0.500	0.000
## 111	0.667	2.600	0.000	1.800
## 112	0.000	0.833	1.250	0.000
## 113	0.000	1.750	0.000	0.000
## 114	1.400	1.400	0.500	0.000
## 115	0.500	0.500	0.000	0.000

## 116	1.400	0.000	2.250	0.750
## 117	0.000	0.000	0.500	0.000
## 118	0.200	0.600	0.000	0.000
## 119	0.250	0.250	0.750	1.667
## 120	0.500	2.083	0.000	0.500
## 121	0.000	0.000	0.667	0.000
## 122	1.000	1.350	1.400	1.800
## 123	0.250	0.750	0.000	0.000
## 124	1.267	0.000	0.000	1.000
## 125	1.000	1.750	0.500	1.667
## 126	0.500	0.000	0.000	0.000
## 127	0.000	0.000	1.000	0.000
## 128	0.000	2.000	0.500	0.250
## 129	0.500	0.000	0.000	0.000
## 130	0.000	2.250	0.000	0.000
## 131	0.833	0.400	0.000	0.000
## 132	0.400	0.200	0.000	0.500
## 133	0.250	0.750	0.000	0.000
## 134	1.417	1.000	0.000	0.000
## 135	0.900	0.800	0.667	0.500
## 136	1.933	0.250	0.000	0.000
## 137	2.750	0.833	1.417	0.500
## 138	0.333	0.000	0.000	0.000
## 139	0.750	0.000	0.500	0.000
## 140	0.250	0.250	0.000	0.000
## 141	0.200	2.083	0.000	0.000
## 142	0.000	0.000	0.000	0.333
## 143	0.400	0.750	0.000	0.000
## 144	0.000	0.833	0.833	0.000
## 145	1.933	0.000	0.000	0.000
## 146	1.750	0.583	0.500	1.000
## 147	2.050	0.400	0.000	0.000
## 148	0.800	0.000	0.000	0.000
## 149	0.000	0.400	1.250	0.250
## 150	0.250	0.000	0.750	0.000
## 151	2.800	1.100	0.000	1.000
## 152	0.667	0.667	0.500	0.000
## 153	1.400	1.250	0.000	0.000
## 154	0.750	1.000	0.000	1.250
## 155	0.500	0.750	0.000	0.000
## 156	0.667	0.000	0.750	0.000
## 157	1.905	0.571	0.952	0.000
## 158	0.250	0.000	0.500	0.000
## 159	0.500	0.000	0.000	0.000
## 160	1.167	0.500	0.000	0.000
## 161	0.833	0.000	0.250	0.833
## 162	0.400	0.000	0.000	0.000
##	maill001_ops_game	mcgur002_ops_game	galvf001_ops_todate	bichb001_ops_todate
## 1	0.000	0.000	0.000	0.000
## 2	0.333	0.000	0.666	0.000
## 3	0.000	0.000	0.700	0.000
## 4	0.000	0.000	0.000	0.000
## 5	0.000	0.000	1.000	0.000
## 6	0.000	0.000	0.889	0.000

## 7	1.667	0.000	0.762	0.000
## 8	0.000	0.000	0.900	0.000
## 9	0.000	0.000	0.993	0.000
## 10	0.000	0.000	1.061	0.000
## 11	0.000	0.000	1.025	0.000
## 12	0.000	0.000	1.022	0.000
## 13	0.000	0.000	1.179	0.000
## 14	1.750	0.000	1.120	0.000
## 15	1.167	0.000	1.036	0.000
## 16	0.000	0.000	1.067	0.000
## 17	0.000	0.000	1.014	0.000
## 18	0.000	0.000	0.969	0.000
## 19	0.000	0.000	0.971	0.000
## 20	0.000	0.000	0.919	0.000
## 21	0.000	0.000	0.873	0.000
## 22	0.250	0.000	0.869	0.000
## 23	0.000	0.000	0.865	0.000
## 24	0.000	0.000	0.000	0.000
## 25	0.000	0.000	0.000	0.000
## 26	0.000	0.000	0.000	0.000
## 27	0.000	0.000	0.000	0.000
## 28	0.000	0.000	0.000	0.000
## 29	0.000	0.000	0.843	0.000
## 30	0.000	0.000	0.802	0.000
## 31	0.000	0.000	0.773	0.000
## 32	0.000	0.000	0.789	0.000
## 33	0.000	0.000	0.781	0.000
## 34	0.000	0.000	0.755	0.000
## 35	0.000	0.000	0.753	0.000
## 36	0.667	0.000	0.729	0.000
## 37	0.000	0.000	0.722	0.000
## 38	0.000	0.000	0.701	0.000
## 39	0.667	0.000	0.727	0.000
## 40	0.000	0.000	0.721	0.000
## 41	0.000	0.000	0.716	0.000
## 42	0.000	0.000	0.730	0.000
## 43	0.000	0.000	0.744	0.000
## 44	0.000	0.000	0.733	0.000
## 45	0.000	0.000	0.742	0.000
## 46	0.000	0.000	0.733	0.000
## 47	1.667	0.000	0.724	0.000
## 48	0.000	0.000	0.735	0.000
## 49	0.333	0.000	0.722	0.000
## 50	0.000	0.000	0.726	0.000
## 51	0.000	0.000	0.753	0.000
## 52	0.000	0.000	0.747	0.000
## 53	0.000	0.000	0.728	0.000
## 54	0.667	0.000	0.746	0.000
## 55	0.000	0.000	0.000	0.000
## 56	0.000	0.000	0.742	0.000
## 57	0.833	0.000	0.732	0.000
## 58	0.000	0.000	0.717	0.000
## 59	1.000	0.000	0.704	0.000
## 60	0.000	0.000	0.718	0.000

## 61	0.000	0.000	0.705	0.000
## 62	0.667	0.000	0.692	0.000
## 63	0.000	0.000	0.692	0.000
## 64	0.000	0.000	0.000	0.000
## 65	0.000	0.000	0.688	0.000
## 66	0.000	0.000	0.685	0.000
## 67	1.167	0.000	0.671	0.000
## 68	0.000	0.000	0.681	0.000
## 69	0.667	0.000	0.691	0.000
## 70	0.000	0.000	0.696	0.000
## 71	0.000	0.000	0.718	0.000
## 72	0.000	0.000	0.722	0.000
## 73	0.000	0.000	0.714	0.000
## 74	0.000	0.000	0.714	0.000
## 75	0.000	0.000	0.718	0.000
## 76	0.000	0.000	0.720	0.000
## 77	0.333	0.000	0.728	0.000
## 78	0.000	0.000	0.736	0.000
## 79	0.000	0.000	0.747	0.000
## 80	0.000	0.000	0.744	0.000
## 81	0.000	0.000	0.740	0.000
## 82	0.000	0.000	0.737	0.000
## 83	0.000	0.000	0.727	0.000
## 84	1.333	0.000	0.723	0.000
## 85	0.000	0.000	0.755	0.000
## 86	0.000	0.000	0.752	0.000
## 87	0.000	0.000	0.768	0.000
## 88	0.000	0.000	0.781	0.000
## 89	0.000	0.000	0.777	0.000
## 90	0.667	0.000	0.768	0.000
## 91	0.000	0.000	0.776	0.000
## 92	0.000	0.000	0.772	0.000
## 93	0.000	0.000	0.767	0.000
## 94	0.000	0.000	0.764	0.000
## 95	0.000	0.000	0.765	0.000
## 96	0.000	0.000	0.767	0.000
## 97	0.000	0.000	0.759	0.000
## 98	0.000	0.000	0.750	0.000
## 99	0.000	0.000	0.759	0.000
## 100	0.000	0.000	0.768	0.000
## 101	0.000	0.000	0.764	0.000
## 102	0.000	0.000	0.756	0.000
## 103	0.000	0.000	0.752	0.000
## 104	0.000	0.000	0.745	0.000
## 105	0.000	0.000	0.744	0.000
## 106	0.000	0.000	0.738	0.000
## 107	0.000	0.400	0.734	0.000
## 108	0.000	0.000	0.000	0.500
## 109	0.000	0.000	0.735	0.819
## 110	0.000	0.500	0.740	1.269
## 111	0.000	0.000	0.735	1.222
## 112	0.000	0.000	0.749	1.162
## 113	0.000	1.250	0.762	1.134
## 114	0.000	0.000	0.000	1.207

## 115	0.000	0.000	0.762	1.295
## 116	0.000	0.000	0.754	1.260
## 117	0.000	0.000	0.755	1.253
## 118	0.000	3.000	0.755	1.290
## 119	0.000	0.000	0.754	1.227
## 120	0.000	0.000	0.748	1.151
## 121	0.000	0.000	0.743	1.141
## 122	0.000	0.000	0.000	1.186
## 123	0.000	0.000	0.000	1.144
## 124	0.000	0.000	0.000	1.109
## 125	0.000	0.000	0.000	1.054
## 126	0.000	2.000	0.000	1.075
## 127	0.000	0.000	0.000	1.027
## 128	0.000	0.000	0.000	1.091
## 129	0.000	0.000	0.000	1.056
## 130	0.000	0.000	0.000	1.014
## 131	0.000	0.500	0.000	1.023
## 132	0.000	0.000	0.000	1.067
## 133	0.000	0.000	0.000	1.072
## 134	0.000	2.000	0.000	1.053
## 135	0.000	0.000	0.000	1.027
## 136	0.000	3.000	0.000	1.011
## 137	0.000	0.000	0.000	1.003
## 138	0.000	0.000	0.000	0.974
## 139	0.000	0.000	0.000	0.972
## 140	0.000	0.000	0.000	0.959
## 141	0.000	1.750	0.000	0.994
## 142	0.000	0.000	0.000	0.978
## 143	0.000	0.500	0.000	0.948
## 144	0.000	0.000	0.000	0.937
## 145	0.000	2.417	0.000	0.921
## 146	0.000	0.000	0.000	0.912
## 147	0.000	0.500	0.000	0.911
## 148	0.000	0.600	0.000	0.945
## 149	0.000	0.000	0.000	0.941
## 150	0.000	0.500	0.000	0.947
## 151	0.000	0.000	0.000	0.939
## 152	0.000	2.083	0.000	0.941
## 153	0.000	0.833	0.000	0.929
## 154	0.000	0.000	0.000	0.000
## 155	0.000	0.000	0.000	0.000
## 156	0.000	0.500	0.000	0.000
## 157	0.000	0.000	0.000	0.000
## 158	0.000	0.750	0.000	0.000
## 159	0.000	0.000	0.000	0.000
## 160	0.000	0.000	0.000	0.000
## 161	0.000	0.000	0.000	0.000
## 162	0.833	0.000	0.000	0.000
##	gurr1001_ops_todate fishd001_ops_todate pillk001_ops_todate			
## 1	0.000	0.000	0.000	
## 2	0.125	0.000	0.000	
## 3	0.000	0.000	0.000	
## 4	0.083	0.000	0.126	
## 5	0.063	0.000	0.000	

## 6	0.000	0.000	0.000
## 7	0.308	0.000	0.000
## 8	0.255	0.000	0.000
## 9	0.000	0.000	0.000
## 10	0.258	0.000	0.000
## 11	0.000	0.000	0.000
## 12	0.376	0.000	0.000
## 13	0.455	0.000	0.000
## 14	0.500	0.000	0.000
## 15	0.538	0.000	0.000
## 16	0.525	0.000	0.000
## 17	0.000	0.000	0.000
## 18	0.000	0.000	0.000
## 19	0.000	0.000	0.000
## 20	0.000	0.000	0.000
## 21	0.000	0.000	0.000
## 22	0.000	0.000	0.000
## 23	0.000	0.000	0.000
## 24	0.000	0.000	0.000
## 25	0.000	0.000	0.000
## 26	0.000	0.000	0.000
## 27	0.000	0.000	0.000
## 28	0.000	0.000	0.000
## 29	0.000	0.000	0.000
## 30	0.000	0.000	0.000
## 31	0.000	0.000	0.000
## 32	0.000	0.000	0.000
## 33	0.000	0.000	0.000
## 34	0.000	0.000	0.000
## 35	0.000	0.000	0.000
## 36	0.000	0.000	0.000
## 37	0.000	0.000	0.000
## 38	0.000	0.000	0.000
## 39	0.000	0.000	0.000
## 40	0.000	0.000	0.000
## 41	0.000	0.000	0.000
## 42	0.000	0.000	0.000
## 43	0.000	0.000	0.000
## 44	0.000	0.000	0.000
## 45	0.000	0.000	0.000
## 46	0.000	0.000	0.000
## 47	0.000	0.000	0.000
## 48	0.000	0.000	0.000
## 49	0.000	0.000	0.000
## 50	0.000	0.000	0.000
## 51	0.604	0.000	0.000
## 52	0.673	0.000	0.000
## 53	0.855	0.000	0.000
## 54	0.875	0.000	0.000
## 55	0.867	0.000	0.000
## 56	0.895	0.000	0.000
## 57	0.874	0.000	0.000
## 58	0.854	0.000	0.000
## 59	0.000	0.000	0.000

## 60	0.818	0.000	0.000
## 61	0.804	0.000	0.000
## 62	0.790	0.000	0.000
## 63	0.799	0.000	0.000
## 64	0.808	0.000	0.000
## 65	0.857	0.000	0.000
## 66	0.838	0.000	0.000
## 67	0.850	0.000	0.000
## 68	0.893	0.000	0.000
## 69	0.880	0.000	0.000
## 70	0.850	0.000	0.000
## 71	0.877	0.000	0.000
## 72	0.000	0.000	0.000
## 73	0.894	0.000	0.000
## 74	0.872	0.000	0.000
## 75	0.914	0.000	0.000
## 76	0.882	0.000	0.000
## 77	0.878	0.000	0.000
## 78	0.896	0.000	0.000
## 79	0.911	0.000	0.000
## 80	0.914	0.000	0.000
## 81	0.966	0.000	0.000
## 82	1.002	0.000	0.000
## 83	1.000	0.000	0.000
## 84	0.989	0.000	0.000
## 85	1.008	0.000	0.000
## 86	1.002	0.000	0.000
## 87	1.002	0.000	0.000
## 88	0.976	0.000	0.000
## 89	0.000	0.000	0.000
## 90	0.965	0.000	0.000
## 91	0.981	0.000	0.000
## 92	0.962	0.000	0.000
## 93	0.953	0.000	0.000
## 94	0.944	0.000	0.000
## 95	0.923	0.000	0.000
## 96	0.942	0.000	0.000
## 97	0.952	0.000	0.000
## 98	0.936	0.000	0.000
## 99	0.925	0.000	0.000
## 100	0.918	0.000	0.000
## 101	0.936	0.000	0.000
## 102	0.928	0.000	0.000
## 103	0.000	0.000	0.000
## 104	0.923	0.000	0.000
## 105	0.909	0.000	0.000
## 106	0.915	0.000	0.000
## 107	0.912	0.000	0.000
## 108	0.000	0.000	0.000
## 109	0.914	0.000	0.000
## 110	0.912	0.000	0.000
## 111	0.000	0.000	0.000
## 112	0.910	0.500	0.000
## 113	0.905	0.500	0.000

## 114	0.900	0.000	0.000
## 115	0.891	0.250	0.000
## 116	0.875	0.000	0.000
## 117	0.880	0.584	0.000
## 118	0.879	0.751	0.000
## 119	0.000	0.711	0.000
## 120	0.000	0.737	0.000
## 121	0.000	0.648	0.000
## 122	0.000	0.697	0.000
## 123	0.000	0.000	0.000
## 124	0.000	0.612	0.000
## 125	0.000	0.704	0.000
## 126	0.000	0.667	0.000
## 127	0.000	0.000	0.000
## 128	0.000	0.742	0.000
## 129	0.000	0.000	0.000
## 130	0.000	0.677	0.000
## 131	0.000	0.676	0.000
## 132	0.000	0.000	0.000
## 133	0.000	0.707	0.000
## 134	0.000	0.669	0.000
## 135	0.000	0.000	0.000
## 136	0.000	0.733	0.000
## 137	0.000	0.687	0.000
## 138	0.000	0.000	0.000
## 139	0.000	0.000	0.000
## 140	0.000	0.730	0.000
## 141	0.000	0.708	0.000
## 142	0.000	0.000	0.000
## 143	0.000	0.680	0.000
## 144	0.000	0.000	0.000
## 145	0.000	0.680	0.000
## 146	0.000	0.000	0.000
## 147	0.000	0.663	0.000
## 148	0.000	0.000	0.000
## 149	0.888	0.000	0.000
## 150	0.000	0.000	0.000
## 151	0.882	0.000	0.000
## 152	0.000	0.655	0.000
## 153	0.891	0.662	0.000
## 154	0.879	0.000	0.000
## 155	0.868	0.000	0.000
## 156	0.000	0.647	0.000
## 157	0.000	0.000	0.000
## 158	0.000	0.675	0.000
## 159	0.000	0.675	0.000
## 160	0.000	0.654	0.000
## 161	0.000	0.000	0.000
## 162	0.000	0.000	0.000
##	hernt002_ops_todate	davij007_ops_todate	gricr001_ops_todate
## 1	0.500	0.000	0.000
## 2	0.500	0.000	0.125
## 3	0.533	0.000	0.000
## 4	0.368	0.000	0.200

## 5	0.501	0.000	0.638
## 6	0.518	0.000	0.000
## 7	0.560	0.000	1.095
## 8	0.000	0.000	0.950
## 9	0.610	0.000	0.825
## 10	0.636	0.000	0.815
## 11	0.588	0.000	0.730
## 12	0.554	0.000	0.737
## 13	0.000	0.000	0.704
## 14	0.616	0.000	0.716
## 15	0.607	0.000	0.718
## 16	0.000	0.000	0.691
## 17	0.705	0.000	0.774
## 18	0.713	0.000	0.779
## 19	0.700	0.000	0.764
## 20	0.735	0.000	0.818
## 21	0.713	0.000	0.777
## 22	0.719	0.000	0.730
## 23	0.674	0.000	0.711
## 24	0.000	0.000	0.723
## 25	0.665	0.000	0.700
## 26	0.658	0.000	0.692
## 27	0.623	0.000	0.726
## 28	0.000	0.000	0.711
## 29	0.628	0.000	0.721
## 30	0.603	0.000	0.740
## 31	0.592	0.000	0.756
## 32	0.584	0.000	0.752
## 33	0.000	0.000	0.740
## 34	0.585	0.000	0.756
## 35	0.570	0.000	0.749
## 36	0.556	0.000	0.742
## 37	0.000	0.000	0.721
## 38	0.601	0.000	0.735
## 39	0.582	0.000	0.776
## 40	0.583	0.000	0.766
## 41	0.000	0.000	0.763
## 42	0.561	0.000	0.765
## 43	0.000	0.000	0.747
## 44	0.000	0.000	0.748
## 45	0.000	0.000	0.748
## 46	0.000	0.112	0.731
## 47	0.000	0.182	0.715
## 48	0.000	0.222	0.737
## 49	0.000	0.206	0.725
## 50	0.000	0.188	0.000
## 51	0.000	0.000	0.717
## 52	0.000	0.228	0.702
## 53	0.000	0.000	0.712
## 54	0.000	0.333	0.698
## 55	0.000	0.309	0.694
## 56	0.000	0.341	0.691
## 57	0.000	0.405	0.700
## 58	0.000	0.380	0.688

## 59	0.000	0.000	0.676
## 60	0.000	0.000	0.686
## 61	0.585	0.000	0.720
## 62	0.569	0.000	0.724
## 63	0.592	0.000	0.721
## 64	0.590	0.000	0.709
## 65	0.594	0.000	0.698
## 66	0.592	0.000	0.704
## 67	0.605	0.000	0.691
## 68	0.607	0.000	0.000
## 69	0.000	0.000	0.681
## 70	0.607	0.000	0.670
## 71	0.656	0.000	0.674
## 72	0.649	0.000	0.690
## 73	0.000	0.000	0.690
## 74	0.000	0.000	0.683
## 75	0.659	0.000	0.688
## 76	0.656	0.000	0.712
## 77	0.660	0.000	0.700
## 78	0.000	0.000	0.691
## 79	0.000	0.000	0.702
## 80	0.646	0.000	0.700
## 81	0.633	0.000	0.699
## 82	0.620	0.000	0.706
## 83	0.000	0.000	0.706
## 84	0.617	0.000	0.000
## 85	0.636	0.000	0.720
## 86	0.000	0.000	0.716
## 87	0.000	0.000	0.708
## 88	0.634	0.000	0.000
## 89	0.639	0.000	0.000
## 90	0.630	0.000	0.000
## 91	0.628	0.000	0.000
## 92	0.620	0.000	0.702
## 93	0.000	0.000	0.705
## 94	0.614	0.000	0.711
## 95	0.000	0.000	0.720
## 96	0.625	0.000	0.718
## 97	0.669	0.000	0.716
## 98	0.661	0.000	0.708
## 99	0.682	0.000	0.000
## 100	0.688	0.000	0.710
## 101	0.688	0.000	0.702
## 102	0.000	0.000	0.697
## 103	0.691	0.000	0.694
## 104	0.682	0.000	0.689
## 105	0.674	0.000	0.687
## 106	0.698	0.000	0.687
## 107	0.714	0.000	0.000
## 108	0.727	0.000	0.707
## 109	0.721	0.000	0.703
## 110	0.000	0.000	0.696
## 111	0.721	0.000	0.708
## 112	0.000	0.000	0.000

## 113	0.722	0.000	0.701
## 114	0.724	0.000	0.717
## 115	0.000	0.000	0.722
## 116	0.718	0.000	0.720
## 117	0.709	0.000	0.728
## 118	0.000	0.000	0.722
## 119	0.737	0.000	0.726
## 120	0.754	0.000	0.720
## 121	0.746	0.000	0.715
## 122	0.749	0.000	0.729
## 123	0.755	0.000	0.738
## 124	0.751	0.000	0.744
## 125	0.756	0.000	0.752
## 126	0.000	0.000	0.745
## 127	0.749	0.000	0.744
## 128	0.747	0.000	0.738
## 129	0.738	0.000	0.739
## 130	0.000	0.000	0.736
## 131	0.742	0.000	0.735
## 132	0.757	0.000	0.736
## 133	0.747	0.000	0.731
## 134	0.000	0.000	0.725
## 135	0.747	0.000	0.729
## 136	0.746	0.000	0.725
## 137	0.752	0.000	0.722
## 138	0.000	0.000	0.719
## 139	0.744	0.000	0.724
## 140	0.746	0.000	0.718
## 141	0.743	0.000	0.712
## 142	0.736	0.353	0.715
## 143	0.000	0.414	0.000
## 144	0.728	0.420	0.719
## 145	0.000	0.431	0.720
## 146	0.739	0.407	0.723
## 147	0.000	0.000	0.723
## 148	0.739	0.000	0.726
## 149	0.737	0.400	0.725
## 150	0.733	0.000	0.739
## 151	0.731	0.000	0.741
## 152	0.732	0.000	0.745
## 153	0.000	0.000	0.745
## 154	0.745	0.000	0.740
## 155	0.746	0.401	0.739
## 156	0.000	0.000	0.742
## 157	0.738	0.486	0.748
## 158	0.000	0.000	0.745
## 159	0.738	0.000	0.000
## 160	0.754	0.000	0.740
## 161	0.766	0.000	0.742
## 162	0.778	0.531	0.737
##	mckib001_ops_todate	smoaj001_ops_todate	tellr001_ops_todate
## 1	0.000	0.000	0.333
## 2	0.500	0.500	0.000
## 3	0.661	0.878	0.400

## 4	0.000	0.694	0.000
## 5	0.533	0.619	1.158
## 6	0.393	0.684	1.362
## 7	0.311	0.630	1.126
## 8	0.350	0.000	0.920
## 9	0.350	0.000	0.822
## 10	0.482	0.627	0.857
## 11	0.535	0.000	0.795
## 12	0.623	0.000	0.000
## 13	0.545	0.740	0.923
## 14	0.497	0.715	0.000
## 15	0.000	0.757	0.818
## 16	0.678	0.804	0.774
## 17	0.614	0.871	0.000
## 18	0.000	0.878	0.747
## 19	0.616	0.851	0.681
## 20	0.609	0.883	0.666
## 21	0.649	0.877	0.000
## 22	0.680	0.932	0.791
## 23	0.680	1.021	0.804
## 24	0.670	0.987	0.885
## 25	0.000	0.938	0.866
## 26	0.644	0.917	0.815
## 27	0.000	0.904	0.797
## 28	0.630	0.867	0.784
## 29	0.000	0.847	0.746
## 30	0.588	0.844	0.811
## 31	0.000	0.844	0.831
## 32	0.000	0.811	0.807
## 33	0.606	0.799	0.815
## 34	0.000	0.816	0.803
## 35	0.000	0.800	0.798
## 36	0.626	0.791	0.769
## 37	0.657	0.776	0.748
## 38	0.000	0.794	0.761
## 39	0.661	0.770	0.735
## 40	0.000	0.748	0.727
## 41	0.671	0.740	0.000
## 42	0.647	0.000	0.727
## 43	0.625	0.732	0.000
## 44	0.680	0.770	0.715
## 45	0.665	0.759	0.730
## 46	0.683	0.761	0.723
## 47	0.668	0.754	0.000
## 48	0.659	0.747	0.769
## 49	0.000	0.776	0.796
## 50	0.636	0.789	0.804
## 51	0.000	0.779	0.784
## 52	0.000	0.798	0.768
## 53	0.000	0.835	0.000
## 54	0.000	0.000	0.749
## 55	0.000	0.838	0.749
## 56	0.000	0.841	0.747
## 57	0.000	0.000	0.739

## 58	0.000	0.851	0.000
## 59	0.000	0.858	0.000
## 60	0.000	0.858	0.725
## 61	0.000	0.837	0.000
## 62	0.000	0.829	0.000
## 63	0.000	0.000	0.709
## 64	0.000	0.831	0.694
## 65	0.000	0.823	0.000
## 66	0.000	0.809	0.000
## 67	0.000	0.803	0.712
## 68	0.000	0.795	0.710
## 69	0.000	0.787	0.696
## 70	0.000	0.000	0.682
## 71	0.000	0.000	0.690
## 72	0.000	0.000	0.676
## 73	0.000	0.000	0.676
## 74	0.000	0.000	0.710
## 75	0.000	0.000	0.710
## 76	0.653	0.000	0.000
## 77	0.000	0.000	0.729
## 78	0.000	0.000	0.744
## 79	0.641	0.000	0.752
## 80	0.000	0.000	0.740
## 81	0.000	0.000	0.735
## 82	0.000	0.787	0.000
## 83	0.000	0.775	0.000
## 84	0.000	0.801	0.729
## 85	0.000	0.000	0.722
## 86	0.000	0.785	0.000
## 87	0.000	0.791	0.735
## 88	0.000	0.799	0.729
## 89	0.000	0.787	0.721
## 90	0.000	0.777	0.000
## 91	0.000	0.776	0.721
## 92	0.000	0.767	0.000
## 93	0.000	0.000	0.718
## 94	0.000	0.756	0.000
## 95	0.669	0.753	0.000
## 96	0.677	0.775	0.000
## 97	0.000	0.771	0.000
## 98	0.000	0.768	0.000
## 99	0.678	0.764	0.000
## 100	0.000	0.000	0.000
## 101	0.000	0.758	0.000
## 102	0.691	0.772	0.000
## 103	0.680	0.784	0.000
## 104	0.000	0.776	0.000
## 105	0.000	0.776	0.000
## 106	0.000	0.000	0.000
## 107	0.697	0.792	0.000
## 108	0.681	0.784	0.000
## 109	0.000	0.000	0.000
## 110	0.667	0.784	0.000
## 111	0.686	0.776	0.000

## 112	0.000	0.775	0.000
## 113	0.000	0.766	0.000
## 114	0.000	0.761	0.000
## 115	0.000	0.758	0.000
## 116	0.000	0.000	0.000
## 117	0.000	0.755	0.000
## 118	0.000	0.748	0.000
## 119	0.000	0.000	0.000
## 120	0.000	0.743	0.000
## 121	0.000	0.742	0.000
## 122	0.000	0.764	0.000
## 123	0.706	0.764	0.000
## 124	0.000	0.000	0.717
## 125	0.000	0.764	0.000
## 126	0.701	0.771	0.714
## 127	0.691	0.765	0.712
## 128	0.000	0.765	0.000
## 129	0.698	0.000	0.716
## 130	0.701	0.000	0.707
## 131	0.000	0.764	0.000
## 132	0.702	0.756	0.710
## 133	0.000	0.000	0.712
## 134	0.695	0.770	0.709
## 135	0.000	0.771	0.702
## 136	0.000	0.771	0.000
## 137	0.000	0.000	0.697
## 138	0.679	0.766	0.691
## 139	0.673	0.759	0.000
## 140	0.000	0.000	0.712
## 141	0.000	0.754	0.707
## 142	0.000	0.000	0.701
## 143	0.671	0.757	0.706
## 144	0.000	0.000	0.707
## 145	0.000	0.755	0.720
## 146	0.000	0.000	0.726
## 147	0.668	0.750	0.717
## 148	0.662	0.000	0.716
## 149	0.000	0.741	0.000
## 150	0.665	0.000	0.708
## 151	0.660	0.747	0.000
## 152	0.000	0.000	0.715
## 153	0.000	0.740	0.720
## 154	0.000	0.748	0.000
## 155	0.000	0.000	0.000
## 156	0.690	0.739	0.714
## 157	0.693	0.000	0.719
## 158	0.000	0.000	0.725
## 159	0.710	0.000	0.745
## 160	0.699	0.000	0.737
## 161	0.000	0.741	0.742
## 162	0.000	0.748	0.742
##	sogae001_ops_todate	biggc002_ops_todate	guerv002_ops_todate
## 1	0.000	0.000	0.000
## 2	0.000	0.000	0.000

## 3	0.000	0.000	0.000
## 4	0.000	0.000	0.000
## 5	0.000	0.000	0.000
## 6	0.000	0.000	0.000
## 7	0.000	0.000	0.000
## 8	0.000	0.000	0.000
## 9	0.000	0.000	0.000
## 10	0.000	0.000	0.000
## 11	0.000	0.000	0.000
## 12	0.000	0.000	0.000
## 13	0.000	0.000	0.000
## 14	0.000	0.000	0.000
## 15	0.000	0.000	0.000
## 16	0.000	0.000	0.000
## 17	0.000	0.000	0.000
## 18	1.400	0.000	0.000
## 19	1.181	0.000	0.000
## 20	1.205	0.000	0.000
## 21	1.034	0.000	0.000
## 22	0.935	0.000	0.000
## 23	0.000	0.000	0.000
## 24	1.006	0.000	0.000
## 25	0.939	0.000	0.000
## 26	1.080	0.000	0.750
## 27	1.132	0.000	0.708
## 28	1.210	0.000	0.641
## 29	1.156	0.000	0.639
## 30	0.000	0.000	0.508
## 31	1.094	0.000	0.000
## 32	1.096	0.000	0.486
## 33	1.128	0.000	0.531
## 34	1.166	0.000	0.465
## 35	1.093	0.000	0.425
## 36	0.000	0.000	0.433
## 37	1.051	0.000	0.000
## 38	1.020	0.000	0.393
## 39	0.965	0.000	0.495
## 40	0.000	0.000	0.517
## 41	0.974	0.000	0.720
## 42	0.000	0.000	0.693
## 43	0.945	0.000	0.648
## 44	0.954	0.000	0.697
## 45	0.000	0.000	0.706
## 46	0.903	0.000	0.766
## 47	0.000	0.000	0.000
## 48	0.000	0.000	0.767
## 49	0.849	0.000	0.798
## 50	0.816	0.000	0.761
## 51	0.000	0.000	0.727
## 52	0.000	0.000	0.711
## 53	0.825	0.900	0.746
## 54	0.808	0.748	0.730
## 55	0.792	0.000	0.703
## 56	0.786	0.000	0.000

## 57	0.000	0.760	0.781
## 58	0.000	0.748	0.780
## 59	0.781	0.681	0.771
## 60	0.810	0.631	0.762
## 61	0.000	0.692	0.798
## 62	0.846	0.000	0.774
## 63	0.822	0.649	0.752
## 64	0.000	0.614	0.758
## 65	0.799	0.556	0.000
## 66	0.826	0.000	0.748
## 67	0.000	0.547	0.769
## 68	0.819	0.729	0.792
## 69	0.000	0.732	0.796
## 70	0.812	0.715	0.000
## 71	0.847	0.740	0.784
## 72	0.846	0.895	0.765
## 73	0.826	0.856	0.747
## 74	0.825	0.828	0.758
## 75	0.874	0.798	0.745
## 76	0.887	0.000	0.736
## 77	0.872	0.805	0.744
## 78	0.876	0.810	0.725
## 79	0.879	0.787	0.742
## 80	0.864	0.794	0.738
## 81	0.000	0.829	0.726
## 82	0.882	0.809	0.722
## 83	0.890	0.842	0.739
## 84	0.889	0.811	0.000
## 85	0.884	0.837	0.751
## 86	0.878	0.851	0.755
## 87	0.000	0.834	0.744
## 88	0.871	0.835	0.000
## 89	0.857	0.809	0.733
## 90	0.000	0.799	0.732
## 91	0.842	0.786	0.741
## 92	0.844	0.778	0.737
## 93	0.840	0.780	0.734
## 94	0.853	0.758	0.722
## 95	0.864	0.746	0.000
## 96	0.866	0.000	0.720
## 97	0.855	0.745	0.706
## 98	0.000	0.738	0.704
## 99	0.862	0.737	0.713
## 100	0.864	0.726	0.729
## 101	0.860	0.000	0.723
## 102	0.854	0.709	0.730
## 103	0.845	0.700	0.742
## 104	0.843	0.000	0.739
## 105	0.000	0.685	0.733
## 106	0.840	0.712	0.746
## 107	0.000	0.704	0.757
## 108	0.000	0.733	0.756
## 109	0.000	0.722	0.767
## 110	0.000	0.733	0.000

## 111	0.000	0.730	0.797
## 112	0.000	0.716	0.798
## 113	0.000	0.000	0.810
## 114	0.000	0.731	0.820
## 115	0.000	0.726	0.816
## 116	0.000	0.739	0.803
## 117	0.000	0.000	0.000
## 118	0.000	0.729	0.801
## 119	0.000	0.722	0.795
## 120	0.000	0.718	0.807
## 121	0.000	0.706	0.000
## 122	0.000	0.714	0.811
## 123	0.000	0.708	0.811
## 124	0.000	0.716	0.800
## 125	0.000	0.720	0.810
## 126	0.000	0.717	0.809
## 127	0.000	0.706	0.000
## 128	0.000	0.000	0.818
## 129	0.000	0.703	0.000
## 130	0.000	0.693	0.833
## 131	0.000	0.695	0.828
## 132	0.000	0.691	0.820
## 133	0.000	0.686	0.820
## 134	0.000	0.695	0.822
## 135	0.000	0.698	0.821
## 136	0.000	0.713	0.816
## 137	0.000	0.736	0.817
## 138	0.000	0.733	0.811
## 139	0.000	0.733	0.000
## 140	0.000	0.728	0.806
## 141	0.000	0.721	0.817
## 142	0.000	0.000	0.809
## 143	0.000	0.718	0.809
## 144	0.000	0.000	0.809
## 145	0.000	0.732	0.801
## 146	0.000	0.742	0.799
## 147	0.000	0.759	0.795
## 148	0.000	0.760	0.786
## 149	0.000	0.000	0.781
## 150	0.000	0.755	0.000
## 151	0.000	0.786	0.785
## 152	0.000	0.784	0.783
## 153	0.000	0.794	0.787
## 154	0.000	0.793	0.789
## 155	0.000	0.790	0.789
## 156	0.000	0.789	0.000
## 157	0.000	0.801	0.786
## 158	0.000	0.796	0.781
## 159	0.000	0.794	0.774
## 160	0.000	0.798	0.772
## 161	0.000	0.799	0.000
## 162	0.000	0.793	0.000
##	drurb001_ops_todate	jansd001_ops_todate	maill001_ops_todate
## 1	0.500	0.000	0.000

## 2	0.750	0.000	0.333
## 3	0.750	0.286	0.000
## 4	0.647	0.334	0.200
## 5	0.619	0.266	0.000
## 6	0.600	0.269	0.000
## 7	0.000	0.000	0.804
## 8	0.543	0.269	0.000
## 9	0.538	0.000	0.573
## 10	0.481	0.345	0.000
## 11	0.000	0.379	0.000
## 12	0.433	0.394	0.000
## 13	0.397	0.413	0.000
## 14	0.000	0.000	0.904
## 15	0.373	0.000	0.952
## 16	0.346	0.391	0.000
## 17	0.394	0.401	0.768
## 18	0.000	0.409	0.000
## 19	0.401	0.000	0.671
## 20	0.394	0.416	0.000
## 21	0.444	0.462	0.000
## 22	0.567	0.000	0.622
## 23	0.602	0.502	0.000
## 24	0.573	0.000	0.560
## 25	0.546	0.478	0.000
## 26	0.578	0.487	0.000
## 27	0.643	0.506	0.000
## 28	0.682	0.000	0.525
## 29	0.704	0.000	0.481
## 30	0.678	0.535	0.000
## 31	0.680	0.515	0.000
## 32	0.686	0.000	0.443
## 33	0.000	0.514	0.000
## 34	0.668	0.496	0.000
## 35	0.651	0.493	0.000
## 36	0.652	0.000	0.459
## 37	0.636	0.000	0.429
## 38	0.000	0.471	0.000
## 39	0.000	0.000	0.443
## 40	0.622	0.455	0.000
## 41	0.000	0.450	0.000
## 42	0.628	0.000	0.416
## 43	0.624	0.447	0.000
## 44	0.626	0.506	0.000
## 45	0.618	0.000	0.401
## 46	0.000	0.554	0.000
## 47	0.601	0.539	0.471
## 48	0.626	0.537	0.000
## 49	0.642	0.000	0.468
## 50	0.656	0.532	0.000
## 51	0.640	0.519	0.000
## 52	0.000	0.000	0.444
## 53	0.637	0.498	0.000
## 54	0.000	0.000	0.455
## 55	0.644	0.483	0.000

## 56	0.654	0.483	0.000
## 57	0.000	0.000	0.476
## 58	0.000	0.500	0.000
## 59	0.651	0.000	0.505
## 60	0.000	0.489	0.000
## 61	0.671	0.498	0.000
## 62	0.671	0.000	0.512
## 63	0.000	0.496	0.000
## 64	0.668	0.000	0.492
## 65	0.658	0.524	0.000
## 66	0.655	0.511	0.000
## 67	0.000	0.000	0.520
## 68	0.000	0.532	0.000
## 69	0.638	0.000	0.525
## 70	0.638	0.522	0.000
## 71	0.000	0.507	0.000
## 72	0.627	0.000	0.502
## 73	0.617	0.498	0.000
## 74	0.606	0.500	0.000
## 75	0.000	0.000	0.479
## 76	0.604	0.490	0.000
## 77	0.000	0.000	0.477
## 78	0.608	0.490	0.000
## 79	0.000	0.000	0.458
## 80	0.000	0.498	0.000
## 81	0.606	0.543	0.000
## 82	0.000	0.545	0.000
## 83	0.604	0.559	0.000
## 84	0.602	0.000	0.484
## 85	0.000	0.548	0.000
## 86	0.597	0.587	0.000
## 87	0.630	0.601	0.000
## 88	0.640	0.652	0.000
## 89	0.658	0.660	0.000
## 90	0.650	0.650	0.489
## 91	0.000	0.661	0.000
## 92	0.000	0.662	0.000
## 93	0.648	0.000	0.471
## 94	0.000	0.667	0.000
## 95	0.644	0.664	0.000
## 96	0.000	0.664	0.000
## 97	0.000	0.000	0.463
## 98	0.644	0.661	0.000
## 99	0.000	0.656	0.000
## 100	0.651	0.646	0.000
## 101	0.641	0.000	0.455
## 102	0.000	0.641	0.000
## 103	0.000	0.000	0.446
## 104	0.635	0.630	0.000
## 105	0.639	0.628	0.000
## 106	0.675	0.617	0.000
## 107	0.668	0.000	0.000
## 108	0.664	0.615	0.000
## 109	0.657	0.622	0.000

## 110	0.654	0.000	0.000
## 111	0.000	0.643	0.000
## 112	0.663	0.635	0.000
## 113	0.000	0.000	0.000
## 114	0.663	0.625	0.000
## 115	0.000	0.000	0.000
## 116	0.683	0.628	0.000
## 117	0.680	0.000	0.000
## 118	0.000	0.000	0.000
## 119	0.682	0.638	0.000
## 120	0.000	0.638	0.000
## 121	0.682	0.000	0.000
## 122	0.693	0.658	0.000
## 123	0.686	0.000	0.000
## 124	0.678	0.663	0.000
## 125	0.676	0.672	0.000
## 126	0.000	0.000	0.000
## 127	0.682	0.667	0.000
## 128	0.680	0.662	0.000
## 129	0.672	0.000	0.000
## 130	0.000	0.656	0.000
## 131	0.662	0.000	0.000
## 132	0.000	0.656	0.000
## 133	0.656	0.000	0.000
## 134	0.000	0.000	0.000
## 135	0.655	0.654	0.000
## 136	0.648	0.000	0.000
## 137	0.655	0.651	0.000
## 138	0.650	0.000	0.000
## 139	0.649	0.646	0.000
## 140	0.000	0.000	0.000
## 141	0.000	0.000	0.000
## 142	0.643	0.644	0.000
## 143	0.000	0.000	0.000
## 144	0.644	0.636	0.000
## 145	0.000	0.000	0.000
## 146	0.644	0.641	0.000
## 147	0.000	0.000	0.000
## 148	0.000	0.000	0.000
## 149	0.651	0.637	0.000
## 150	0.652	0.000	0.000
## 151	0.000	0.641	0.000
## 152	0.650	0.000	0.000
## 153	0.000	0.000	0.000
## 154	0.000	0.649	0.000
## 155	0.646	0.000	0.439
## 156	0.646	0.000	0.000
## 157	0.651	0.637	0.000
## 158	0.650	0.000	0.000
## 159	0.645	0.000	0.428
## 160	0.000	0.000	0.000
## 161	0.642	0.639	0.000
## 162	0.000	0.000	0.440
##	mcgur002_ops_todate galvf001_ops_season bichb001_ops_season		

## 1	0.000	0.734	0.000
## 2	0.000	0.734	0.000
## 3	0.000	0.734	0.000
## 4	0.000	0.000	0.000
## 5	0.000	0.734	0.000
## 6	0.000	0.734	0.000
## 7	0.000	0.734	0.000
## 8	0.000	0.734	0.000
## 9	0.000	0.734	0.000
## 10	0.000	0.734	0.000
## 11	0.000	0.734	0.000
## 12	0.000	0.734	0.000
## 13	0.000	0.734	0.000
## 14	0.000	0.734	0.000
## 15	0.000	0.734	0.000
## 16	0.000	0.734	0.000
## 17	0.000	0.734	0.000
## 18	0.000	0.734	0.000
## 19	0.000	0.734	0.000
## 20	0.000	0.734	0.000
## 21	0.000	0.734	0.000
## 22	0.000	0.734	0.000
## 23	0.000	0.734	0.000
## 24	0.000	0.000	0.000
## 25	0.000	0.000	0.000
## 26	0.000	0.000	0.000
## 27	0.000	0.000	0.000
## 28	0.000	0.000	0.000
## 29	0.000	0.734	0.000
## 30	0.000	0.734	0.000
## 31	0.000	0.734	0.000
## 32	0.000	0.734	0.000
## 33	0.000	0.734	0.000
## 34	0.000	0.734	0.000
## 35	0.000	0.734	0.000
## 36	0.000	0.734	0.000
## 37	0.000	0.734	0.000
## 38	0.000	0.734	0.000
## 39	0.000	0.734	0.000
## 40	0.000	0.734	0.000
## 41	0.000	0.734	0.000
## 42	0.000	0.734	0.000
## 43	0.000	0.734	0.000
## 44	0.000	0.734	0.000
## 45	0.000	0.734	0.000
## 46	0.000	0.734	0.000
## 47	0.000	0.734	0.000
## 48	0.000	0.734	0.000
## 49	0.000	0.734	0.000
## 50	0.000	0.734	0.000
## 51	0.000	0.734	0.000
## 52	0.000	0.734	0.000
## 53	0.000	0.734	0.000
## 54	0.000	0.734	0.000

## 55	0.000	0.000	0.000
## 56	0.000	0.734	0.000
## 57	0.000	0.734	0.000
## 58	0.000	0.734	0.000
## 59	0.000	0.734	0.000
## 60	0.000	0.734	0.000
## 61	0.000	0.734	0.000
## 62	0.000	0.734	0.000
## 63	0.000	0.734	0.000
## 64	0.000	0.000	0.000
## 65	0.000	0.734	0.000
## 66	0.000	0.734	0.000
## 67	0.000	0.734	0.000
## 68	0.000	0.734	0.000
## 69	0.000	0.734	0.000
## 70	0.000	0.734	0.000
## 71	0.000	0.734	0.000
## 72	0.000	0.734	0.000
## 73	0.000	0.734	0.000
## 74	0.000	0.734	0.000
## 75	0.000	0.734	0.000
## 76	0.000	0.734	0.000
## 77	0.000	0.734	0.000
## 78	0.000	0.734	0.000
## 79	0.000	0.734	0.000
## 80	0.000	0.734	0.000
## 81	0.000	0.734	0.000
## 82	0.000	0.734	0.000
## 83	0.000	0.734	0.000
## 84	0.000	0.734	0.000
## 85	0.000	0.734	0.000
## 86	0.000	0.734	0.000
## 87	0.000	0.734	0.000
## 88	0.000	0.734	0.000
## 89	0.000	0.734	0.000
## 90	0.000	0.734	0.000
## 91	0.000	0.734	0.000
## 92	0.000	0.734	0.000
## 93	0.000	0.734	0.000
## 94	0.000	0.734	0.000
## 95	0.000	0.734	0.000
## 96	0.000	0.734	0.000
## 97	0.000	0.734	0.000
## 98	0.000	0.734	0.000
## 99	0.000	0.734	0.000
## 100	0.000	0.734	0.000
## 101	0.000	0.734	0.000
## 102	0.000	0.734	0.000
## 103	0.000	0.734	0.000
## 104	0.000	0.734	0.000
## 105	0.000	0.734	0.000
## 106	0.000	0.734	0.000
## 107	0.400	0.734	0.000
## 108	0.000	0.000	0.929

## 109	0.000	0.734	0.929
## 110	0.444	0.734	0.929
## 111	0.000	0.734	0.929
## 112	0.000	0.734	0.929
## 113	0.693	0.734	0.929
## 114	0.000	0.000	0.929
## 115	0.529	0.734	0.929
## 116	0.000	0.734	0.929
## 117	0.429	0.734	0.929
## 118	0.840	0.734	0.929
## 119	0.000	0.734	0.929
## 120	0.000	0.734	0.929
## 121	0.778	0.734	0.929
## 122	0.000	0.000	0.929
## 123	0.700	0.000	0.929
## 124	0.000	0.000	0.929
## 125	0.000	0.000	0.929
## 126	0.853	0.000	0.929
## 127	0.000	0.000	0.929
## 128	0.000	0.000	0.929
## 129	0.763	0.000	0.929
## 130	0.000	0.000	0.929
## 131	0.738	0.000	0.929
## 132	0.000	0.000	0.929
## 133	0.689	0.000	0.929
## 134	0.760	0.000	0.929
## 135	0.000	0.000	0.929
## 136	0.894	0.000	0.929
## 137	0.000	0.000	0.929
## 138	0.843	0.000	0.929
## 139	0.000	0.000	0.929
## 140	0.000	0.000	0.929
## 141	0.891	0.000	0.929
## 142	0.000	0.000	0.929
## 143	0.865	0.000	0.929
## 144	0.000	0.000	0.929
## 145	0.943	0.000	0.929
## 146	0.000	0.000	0.929
## 147	0.934	0.000	0.929
## 148	0.911	0.000	0.929
## 149	0.000	0.000	0.929
## 150	0.891	0.000	0.929
## 151	0.000	0.000	0.929
## 152	0.960	0.000	0.929
## 153	0.956	0.000	0.929
## 154	0.000	0.000	0.000
## 155	0.000	0.000	0.000
## 156	0.925	0.000	0.000
## 157	0.000	0.000	0.000
## 158	0.908	0.000	0.000
## 159	0.000	0.000	0.000
## 160	0.872	0.000	0.000
## 161	0.000	0.000	0.000
## 162	0.000	0.000	0.000

##	gurr1001_ops_season	fishd001_ops_season	pillk001_ops_season
## 1	0.868	0.000	0.719
## 2	0.868	0.000	0.719
## 3	0.000	0.000	0.719
## 4	0.868	0.000	0.719
## 5	0.868	0.000	0.000
## 6	0.000	0.000	0.000
## 7	0.868	0.000	0.000
## 8	0.868	0.000	0.000
## 9	0.000	0.000	0.000
## 10	0.868	0.000	0.000
## 11	0.000	0.000	0.000
## 12	0.868	0.000	0.000
## 13	0.868	0.000	0.000
## 14	0.868	0.000	0.000
## 15	0.868	0.000	0.000
## 16	0.868	0.000	0.000
## 17	0.000	0.000	0.000
## 18	0.000	0.000	0.000
## 19	0.000	0.000	0.000
## 20	0.000	0.000	0.000
## 21	0.000	0.000	0.000
## 22	0.000	0.000	0.000
## 23	0.000	0.000	0.000
## 24	0.000	0.000	0.000
## 25	0.000	0.000	0.000
## 26	0.000	0.000	0.000
## 27	0.000	0.000	0.000
## 28	0.000	0.000	0.000
## 29	0.000	0.000	0.000
## 30	0.000	0.000	0.000
## 31	0.000	0.000	0.000
## 32	0.000	0.000	0.000
## 33	0.000	0.000	0.000
## 34	0.000	0.000	0.000
## 35	0.000	0.000	0.000
## 36	0.000	0.000	0.000
## 37	0.000	0.000	0.000
## 38	0.000	0.000	0.000
## 39	0.000	0.000	0.000
## 40	0.000	0.000	0.000
## 41	0.000	0.000	0.000
## 42	0.000	0.000	0.000
## 43	0.000	0.000	0.000
## 44	0.000	0.000	0.000
## 45	0.000	0.000	0.000
## 46	0.000	0.000	0.000
## 47	0.000	0.000	0.000
## 48	0.000	0.000	0.000
## 49	0.000	0.000	0.000
## 50	0.000	0.000	0.000
## 51	0.868	0.000	0.000
## 52	0.868	0.000	0.000
## 53	0.868	0.000	0.000

## 54	0.868	0.000	0.000
## 55	0.868	0.000	0.000
## 56	0.868	0.000	0.000
## 57	0.868	0.000	0.000
## 58	0.868	0.000	0.000
## 59	0.000	0.000	0.000
## 60	0.868	0.000	0.000
## 61	0.868	0.000	0.000
## 62	0.868	0.000	0.000
## 63	0.868	0.000	0.000
## 64	0.868	0.000	0.000
## 65	0.868	0.000	0.000
## 66	0.868	0.000	0.000
## 67	0.868	0.000	0.000
## 68	0.868	0.000	0.000
## 69	0.868	0.000	0.000
## 70	0.868	0.000	0.000
## 71	0.868	0.000	0.000
## 72	0.000	0.000	0.000
## 73	0.868	0.000	0.000
## 74	0.868	0.000	0.000
## 75	0.868	0.000	0.000
## 76	0.868	0.000	0.000
## 77	0.868	0.000	0.000
## 78	0.868	0.000	0.000
## 79	0.868	0.000	0.000
## 80	0.868	0.000	0.000
## 81	0.868	0.000	0.000
## 82	0.868	0.000	0.000
## 83	0.868	0.000	0.000
## 84	0.868	0.000	0.000
## 85	0.868	0.000	0.000
## 86	0.868	0.000	0.000
## 87	0.868	0.000	0.000
## 88	0.868	0.000	0.000
## 89	0.000	0.000	0.000
## 90	0.868	0.000	0.000
## 91	0.868	0.000	0.000
## 92	0.868	0.000	0.000
## 93	0.868	0.000	0.000
## 94	0.868	0.000	0.000
## 95	0.868	0.000	0.000
## 96	0.868	0.000	0.000
## 97	0.868	0.000	0.000
## 98	0.868	0.000	0.000
## 99	0.868	0.000	0.000
## 100	0.868	0.000	0.000
## 101	0.868	0.000	0.000
## 102	0.868	0.000	0.000
## 103	0.000	0.000	0.000
## 104	0.868	0.000	0.000
## 105	0.868	0.000	0.000
## 106	0.868	0.000	0.000
## 107	0.868	0.000	0.000

## 108	0.000	0.000	0.000
## 109	0.868	0.000	0.000
## 110	0.868	0.000	0.000
## 111	0.000	0.000	0.000
## 112	0.868	0.657	0.000
## 113	0.868	0.657	0.000
## 114	0.868	0.000	0.000
## 115	0.868	0.657	0.000
## 116	0.868	0.000	0.000
## 117	0.868	0.657	0.000
## 118	0.868	0.657	0.000
## 119	0.000	0.657	0.000
## 120	0.000	0.657	0.000
## 121	0.000	0.657	0.000
## 122	0.000	0.657	0.000
## 123	0.000	0.000	0.000
## 124	0.000	0.657	0.000
## 125	0.000	0.657	0.000
## 126	0.000	0.657	0.000
## 127	0.000	0.000	0.000
## 128	0.000	0.657	0.000
## 129	0.000	0.000	0.000
## 130	0.000	0.657	0.000
## 131	0.000	0.657	0.000
## 132	0.000	0.000	0.000
## 133	0.000	0.657	0.000
## 134	0.000	0.657	0.000
## 135	0.000	0.000	0.000
## 136	0.000	0.657	0.000
## 137	0.000	0.657	0.000
## 138	0.000	0.000	0.000
## 139	0.000	0.000	0.000
## 140	0.000	0.657	0.000
## 141	0.000	0.657	0.000
## 142	0.000	0.000	0.000
## 143	0.000	0.657	0.000
## 144	0.000	0.000	0.000
## 145	0.000	0.657	0.000
## 146	0.000	0.000	0.000
## 147	0.000	0.657	0.000
## 148	0.000	0.000	0.000
## 149	0.868	0.000	0.000
## 150	0.000	0.000	0.000
## 151	0.868	0.000	0.000
## 152	0.000	0.657	0.000
## 153	0.868	0.657	0.000
## 154	0.868	0.000	0.000
## 155	0.868	0.000	0.000
## 156	0.000	0.657	0.000
## 157	0.000	0.000	0.000
## 158	0.000	0.657	0.000
## 159	0.000	0.657	0.000
## 160	0.000	0.657	0.000
## 161	0.000	0.000	0.000

## 162	0.000	0.000	0.000
##	hernt002_ops_season	davij007_ops_season	gricr001_ops_season
## 1	0.778	0.000	0.737
## 2	0.778	0.000	0.737
## 3	0.778	0.000	0.000
## 4	0.778	0.000	0.737
## 5	0.778	0.000	0.737
## 6	0.778	0.000	0.000
## 7	0.778	0.000	0.737
## 8	0.000	0.000	0.737
## 9	0.778	0.000	0.737
## 10	0.778	0.000	0.737
## 11	0.778	0.000	0.737
## 12	0.778	0.000	0.737
## 13	0.000	0.000	0.737
## 14	0.778	0.000	0.737
## 15	0.778	0.000	0.737
## 16	0.000	0.000	0.737
## 17	0.778	0.000	0.737
## 18	0.778	0.000	0.737
## 19	0.778	0.000	0.737
## 20	0.778	0.000	0.737
## 21	0.778	0.000	0.737
## 22	0.778	0.000	0.737
## 23	0.778	0.000	0.737
## 24	0.000	0.000	0.737
## 25	0.778	0.000	0.737
## 26	0.778	0.000	0.737
## 27	0.778	0.000	0.737
## 28	0.000	0.000	0.737
## 29	0.778	0.000	0.737
## 30	0.778	0.000	0.737
## 31	0.778	0.000	0.737
## 32	0.778	0.000	0.737
## 33	0.000	0.000	0.737
## 34	0.778	0.000	0.737
## 35	0.778	0.000	0.737
## 36	0.778	0.000	0.737
## 37	0.000	0.000	0.737
## 38	0.778	0.531	0.737
## 39	0.778	0.000	0.737
## 40	0.778	0.531	0.737
## 41	0.000	0.531	0.737
## 42	0.778	0.000	0.737
## 43	0.000	0.531	0.737
## 44	0.000	0.000	0.737
## 45	0.000	0.000	0.737
## 46	0.000	0.531	0.737
## 47	0.000	0.531	0.737
## 48	0.000	0.531	0.737
## 49	0.000	0.531	0.737
## 50	0.000	0.531	0.000
## 51	0.000	0.000	0.737
## 52	0.000	0.531	0.737

## 53	0.000	0.000	0.737
## 54	0.000	0.531	0.737
## 55	0.000	0.531	0.737
## 56	0.000	0.531	0.737
## 57	0.000	0.531	0.737
## 58	0.000	0.531	0.737
## 59	0.000	0.000	0.737
## 60	0.000	0.000	0.737
## 61	0.778	0.000	0.737
## 62	0.778	0.000	0.737
## 63	0.778	0.000	0.737
## 64	0.778	0.000	0.737
## 65	0.778	0.000	0.737
## 66	0.778	0.000	0.737
## 67	0.778	0.000	0.737
## 68	0.778	0.000	0.000
## 69	0.000	0.000	0.737
## 70	0.778	0.000	0.737
## 71	0.778	0.000	0.737
## 72	0.778	0.000	0.737
## 73	0.000	0.000	0.737
## 74	0.000	0.000	0.737
## 75	0.778	0.000	0.737
## 76	0.778	0.000	0.737
## 77	0.778	0.000	0.737
## 78	0.000	0.000	0.737
## 79	0.000	0.000	0.737
## 80	0.778	0.000	0.737
## 81	0.778	0.000	0.737
## 82	0.778	0.000	0.737
## 83	0.000	0.000	0.737
## 84	0.778	0.000	0.000
## 85	0.778	0.000	0.737
## 86	0.000	0.000	0.737
## 87	0.000	0.000	0.737
## 88	0.778	0.000	0.000
## 89	0.778	0.000	0.000
## 90	0.778	0.000	0.000
## 91	0.778	0.000	0.000
## 92	0.778	0.000	0.737
## 93	0.000	0.000	0.737
## 94	0.778	0.000	0.737
## 95	0.000	0.000	0.737
## 96	0.778	0.000	0.737
## 97	0.778	0.000	0.737
## 98	0.778	0.000	0.737
## 99	0.778	0.000	0.000
## 100	0.778	0.000	0.737
## 101	0.778	0.000	0.737
## 102	0.000	0.000	0.737
## 103	0.778	0.000	0.737
## 104	0.778	0.000	0.737
## 105	0.778	0.000	0.737
## 106	0.778	0.000	0.737

## 107	0.778	0.000	0.000
## 108	0.778	0.000	0.737
## 109	0.778	0.000	0.737
## 110	0.000	0.000	0.737
## 111	0.778	0.000	0.737
## 112	0.000	0.000	0.000
## 113	0.778	0.000	0.737
## 114	0.778	0.000	0.737
## 115	0.000	0.000	0.737
## 116	0.778	0.000	0.737
## 117	0.778	0.000	0.737
## 118	0.000	0.000	0.737
## 119	0.778	0.000	0.737
## 120	0.778	0.000	0.737
## 121	0.778	0.000	0.737
## 122	0.778	0.000	0.737
## 123	0.778	0.000	0.737
## 124	0.778	0.000	0.737
## 125	0.778	0.000	0.737
## 126	0.000	0.000	0.737
## 127	0.778	0.000	0.737
## 128	0.778	0.000	0.737
## 129	0.778	0.000	0.737
## 130	0.000	0.000	0.737
## 131	0.778	0.000	0.737
## 132	0.778	0.000	0.737
## 133	0.778	0.000	0.737
## 134	0.000	0.000	0.737
## 135	0.778	0.000	0.737
## 136	0.778	0.000	0.737
## 137	0.778	0.000	0.737
## 138	0.000	0.000	0.737
## 139	0.778	0.000	0.737
## 140	0.778	0.000	0.737
## 141	0.778	0.000	0.737
## 142	0.778	0.531	0.737
## 143	0.000	0.531	0.000
## 144	0.778	0.531	0.737
## 145	0.000	0.531	0.737
## 146	0.778	0.531	0.737
## 147	0.000	0.000	0.737
## 148	0.778	0.000	0.737
## 149	0.778	0.531	0.737
## 150	0.778	0.000	0.737
## 151	0.778	0.000	0.737
## 152	0.778	0.000	0.737
## 153	0.000	0.000	0.737
## 154	0.778	0.000	0.737
## 155	0.778	0.531	0.737
## 156	0.000	0.000	0.737
## 157	0.778	0.531	0.737
## 158	0.000	0.000	0.737
## 159	0.778	0.000	0.000
## 160	0.778	0.000	0.737

## 161	0.778	0.000	0.737
## 162	0.778	0.531	0.737
##	mckib001_ops_season	smoaj001_ops_season	tellr001_ops_season
## 1	0.000	0.748	0.742
## 2	0.696	0.748	0.000
## 3	0.696	0.748	0.742
## 4	0.000	0.748	0.000
## 5	0.696	0.748	0.742
## 6	0.696	0.748	0.742
## 7	0.696	0.748	0.742
## 8	0.696	0.000	0.742
## 9	0.696	0.000	0.742
## 10	0.696	0.748	0.742
## 11	0.696	0.000	0.742
## 12	0.696	0.000	0.000
## 13	0.696	0.748	0.742
## 14	0.696	0.748	0.000
## 15	0.000	0.748	0.742
## 16	0.696	0.748	0.742
## 17	0.696	0.748	0.000
## 18	0.000	0.748	0.742
## 19	0.696	0.748	0.742
## 20	0.696	0.748	0.742
## 21	0.696	0.748	0.000
## 22	0.696	0.748	0.742
## 23	0.696	0.748	0.742
## 24	0.696	0.748	0.742
## 25	0.000	0.748	0.742
## 26	0.696	0.748	0.742
## 27	0.000	0.748	0.742
## 28	0.696	0.748	0.742
## 29	0.000	0.748	0.742
## 30	0.696	0.748	0.742
## 31	0.000	0.748	0.742
## 32	0.000	0.748	0.742
## 33	0.696	0.748	0.742
## 34	0.000	0.748	0.742
## 35	0.000	0.748	0.742
## 36	0.696	0.748	0.742
## 37	0.696	0.748	0.742
## 38	0.000	0.748	0.742
## 39	0.696	0.748	0.742
## 40	0.000	0.748	0.742
## 41	0.696	0.748	0.000
## 42	0.696	0.000	0.742
## 43	0.696	0.748	0.000
## 44	0.696	0.748	0.742
## 45	0.696	0.748	0.742
## 46	0.696	0.748	0.742
## 47	0.696	0.748	0.000
## 48	0.696	0.748	0.742
## 49	0.000	0.748	0.742
## 50	0.696	0.748	0.742
## 51	0.000	0.748	0.742

## 52	0.000	0.748	0.742
## 53	0.000	0.748	0.000
## 54	0.000	0.000	0.742
## 55	0.000	0.748	0.742
## 56	0.000	0.748	0.742
## 57	0.000	0.000	0.742
## 58	0.000	0.748	0.000
## 59	0.000	0.748	0.000
## 60	0.000	0.748	0.742
## 61	0.000	0.748	0.000
## 62	0.000	0.748	0.000
## 63	0.000	0.000	0.742
## 64	0.000	0.748	0.742
## 65	0.000	0.748	0.000
## 66	0.000	0.748	0.000
## 67	0.000	0.748	0.742
## 68	0.000	0.748	0.742
## 69	0.000	0.748	0.742
## 70	0.000	0.000	0.742
## 71	0.000	0.000	0.742
## 72	0.000	0.000	0.742
## 73	0.000	0.000	0.742
## 74	0.000	0.000	0.742
## 75	0.000	0.000	0.742
## 76	0.696	0.000	0.000
## 77	0.000	0.000	0.742
## 78	0.000	0.000	0.742
## 79	0.696	0.000	0.742
## 80	0.000	0.000	0.742
## 81	0.000	0.000	0.742
## 82	0.000	0.748	0.000
## 83	0.000	0.748	0.000
## 84	0.000	0.748	0.742
## 85	0.000	0.000	0.742
## 86	0.000	0.748	0.000
## 87	0.000	0.748	0.742
## 88	0.000	0.748	0.742
## 89	0.000	0.748	0.742
## 90	0.000	0.748	0.000
## 91	0.000	0.748	0.742
## 92	0.000	0.748	0.000
## 93	0.000	0.000	0.742
## 94	0.000	0.748	0.000
## 95	0.696	0.748	0.000
## 96	0.696	0.748	0.000
## 97	0.000	0.748	0.000
## 98	0.000	0.748	0.000
## 99	0.696	0.748	0.000
## 100	0.000	0.000	0.000
## 101	0.000	0.748	0.000
## 102	0.696	0.748	0.000
## 103	0.696	0.748	0.000
## 104	0.000	0.748	0.000
## 105	0.000	0.748	0.000

## 106	0.000	0.000	0.000
## 107	0.696	0.748	0.000
## 108	0.696	0.748	0.000
## 109	0.000	0.000	0.000
## 110	0.696	0.748	0.000
## 111	0.696	0.748	0.000
## 112	0.000	0.748	0.000
## 113	0.000	0.748	0.000
## 114	0.000	0.748	0.000
## 115	0.000	0.748	0.000
## 116	0.000	0.000	0.000
## 117	0.000	0.748	0.000
## 118	0.000	0.748	0.000
## 119	0.000	0.000	0.000
## 120	0.000	0.748	0.000
## 121	0.000	0.748	0.000
## 122	0.000	0.748	0.000
## 123	0.696	0.748	0.000
## 124	0.000	0.000	0.742
## 125	0.000	0.748	0.000
## 126	0.696	0.748	0.742
## 127	0.696	0.748	0.742
## 128	0.000	0.748	0.000
## 129	0.696	0.000	0.742
## 130	0.696	0.000	0.742
## 131	0.000	0.748	0.000
## 132	0.696	0.748	0.742
## 133	0.000	0.000	0.742
## 134	0.696	0.748	0.742
## 135	0.000	0.748	0.742
## 136	0.000	0.748	0.000
## 137	0.000	0.000	0.742
## 138	0.696	0.748	0.742
## 139	0.696	0.748	0.000
## 140	0.000	0.000	0.742
## 141	0.000	0.748	0.742
## 142	0.000	0.000	0.742
## 143	0.696	0.748	0.742
## 144	0.000	0.000	0.742
## 145	0.000	0.748	0.742
## 146	0.000	0.000	0.742
## 147	0.696	0.748	0.742
## 148	0.696	0.000	0.742
## 149	0.000	0.748	0.000
## 150	0.696	0.000	0.742
## 151	0.696	0.748	0.000
## 152	0.000	0.000	0.742
## 153	0.000	0.748	0.742
## 154	0.000	0.748	0.000
## 155	0.000	0.000	0.000
## 156	0.696	0.748	0.742
## 157	0.696	0.000	0.742
## 158	0.000	0.000	0.742
## 159	0.696	0.000	0.742

## 160	0.696	0.000	0.742
## 161	0.000	0.748	0.742
## 162	0.000	0.748	0.742
##	sogae001_ops_season	biggc002_ops_season	guerv002_ops_season
## 1	0.00	0.000	0.000
## 2	0.00	0.000	0.000
## 3	0.00	0.000	0.000
## 4	0.00	0.000	0.000
## 5	0.00	0.000	0.000
## 6	0.00	0.000	0.000
## 7	0.00	0.000	0.000
## 8	0.00	0.000	0.000
## 9	0.00	0.000	0.000
## 10	0.00	0.000	0.000
## 11	0.00	0.000	0.000
## 12	0.00	0.000	0.000
## 13	0.00	0.000	0.000
## 14	0.00	0.000	0.000
## 15	0.00	0.000	0.000
## 16	0.00	0.000	0.000
## 17	0.00	0.000	0.000
## 18	0.81	0.000	0.000
## 19	0.81	0.000	0.000
## 20	0.81	0.000	0.000
## 21	0.81	0.000	0.000
## 22	0.81	0.000	0.000
## 23	0.00	0.000	0.000
## 24	0.81	0.000	0.000
## 25	0.81	0.000	0.000
## 26	0.81	0.000	0.772
## 27	0.81	0.000	0.772
## 28	0.81	0.000	0.772
## 29	0.81	0.000	0.772
## 30	0.00	0.000	0.772
## 31	0.81	0.000	0.000
## 32	0.81	0.000	0.772
## 33	0.81	0.000	0.772
## 34	0.81	0.000	0.772
## 35	0.81	0.000	0.772
## 36	0.00	0.000	0.772
## 37	0.81	0.000	0.000
## 38	0.81	0.000	0.772
## 39	0.81	0.000	0.772
## 40	0.00	0.000	0.772
## 41	0.81	0.000	0.772
## 42	0.00	0.000	0.772
## 43	0.81	0.000	0.772
## 44	0.81	0.000	0.772
## 45	0.00	0.000	0.772
## 46	0.81	0.000	0.772
## 47	0.00	0.000	0.000
## 48	0.00	0.000	0.772
## 49	0.81	0.000	0.772
## 50	0.81	0.000	0.772

## 51	0.00	0.793	0.772
## 52	0.00	0.793	0.772
## 53	0.81	0.793	0.772
## 54	0.81	0.793	0.772
## 55	0.81	0.000	0.772
## 56	0.81	0.000	0.000
## 57	0.00	0.793	0.772
## 58	0.00	0.793	0.772
## 59	0.81	0.793	0.772
## 60	0.81	0.793	0.772
## 61	0.00	0.793	0.772
## 62	0.81	0.000	0.772
## 63	0.81	0.793	0.772
## 64	0.00	0.793	0.772
## 65	0.81	0.793	0.000
## 66	0.81	0.000	0.772
## 67	0.00	0.793	0.772
## 68	0.81	0.793	0.772
## 69	0.00	0.793	0.772
## 70	0.81	0.793	0.000
## 71	0.81	0.793	0.772
## 72	0.81	0.793	0.772
## 73	0.81	0.793	0.772
## 74	0.81	0.793	0.772
## 75	0.81	0.793	0.772
## 76	0.81	0.000	0.772
## 77	0.81	0.793	0.772
## 78	0.81	0.793	0.772
## 79	0.81	0.793	0.772
## 80	0.81	0.793	0.772
## 81	0.00	0.793	0.772
## 82	0.81	0.793	0.772
## 83	0.81	0.793	0.772
## 84	0.81	0.793	0.000
## 85	0.81	0.793	0.772
## 86	0.81	0.793	0.772
## 87	0.00	0.793	0.772
## 88	0.81	0.793	0.000
## 89	0.81	0.793	0.772
## 90	0.00	0.793	0.772
## 91	0.81	0.793	0.772
## 92	0.81	0.793	0.772
## 93	0.81	0.793	0.772
## 94	0.81	0.793	0.772
## 95	0.81	0.793	0.000
## 96	0.81	0.000	0.772
## 97	0.81	0.793	0.772
## 98	0.00	0.793	0.772
## 99	0.81	0.793	0.772
## 100	0.81	0.793	0.772
## 101	0.81	0.000	0.772
## 102	0.81	0.793	0.772
## 103	0.81	0.793	0.772
## 104	0.81	0.000	0.772

## 105	0.00	0.793	0.772
## 106	0.81	0.793	0.772
## 107	0.00	0.793	0.772
## 108	0.00	0.793	0.772
## 109	0.00	0.793	0.772
## 110	0.00	0.793	0.000
## 111	0.00	0.793	0.772
## 112	0.00	0.793	0.772
## 113	0.00	0.000	0.772
## 114	0.00	0.793	0.772
## 115	0.00	0.793	0.772
## 116	0.00	0.793	0.772
## 117	0.00	0.000	0.000
## 118	0.00	0.793	0.772
## 119	0.00	0.793	0.772
## 120	0.00	0.793	0.772
## 121	0.00	0.793	0.000
## 122	0.00	0.793	0.772
## 123	0.00	0.793	0.772
## 124	0.00	0.793	0.772
## 125	0.00	0.793	0.772
## 126	0.00	0.793	0.772
## 127	0.00	0.793	0.000
## 128	0.00	0.000	0.772
## 129	0.00	0.793	0.000
## 130	0.00	0.793	0.772
## 131	0.00	0.793	0.772
## 132	0.00	0.793	0.772
## 133	0.00	0.793	0.772
## 134	0.00	0.793	0.772
## 135	0.00	0.793	0.772
## 136	0.00	0.793	0.772
## 137	0.00	0.793	0.772
## 138	0.00	0.793	0.772
## 139	0.00	0.793	0.000
## 140	0.00	0.793	0.772
## 141	0.00	0.793	0.772
## 142	0.00	0.000	0.772
## 143	0.00	0.793	0.772
## 144	0.00	0.000	0.772
## 145	0.00	0.793	0.772
## 146	0.00	0.793	0.772
## 147	0.00	0.793	0.772
## 148	0.00	0.793	0.772
## 149	0.00	0.000	0.772
## 150	0.00	0.793	0.000
## 151	0.00	0.793	0.772
## 152	0.00	0.793	0.772
## 153	0.00	0.793	0.772
## 154	0.00	0.793	0.772
## 155	0.00	0.793	0.772
## 156	0.00	0.793	0.000
## 157	0.00	0.793	0.772
## 158	0.00	0.793	0.772

## 159	0.00	0.793	0.772
## 160	0.00	0.793	0.772
## 161	0.00	0.793	0.000
## 162	0.00	0.793	0.000
##	drurb001_ops_season	jansd001_ops_season	mail1001_ops_season
## 1	0.642	0.639	0.00
## 2	0.642	0.000	0.44
## 3	0.642	0.639	0.00
## 4	0.642	0.639	0.44
## 5	0.642	0.639	0.00
## 6	0.642	0.639	0.00
## 7	0.000	0.000	0.44
## 8	0.642	0.639	0.00
## 9	0.642	0.000	0.44
## 10	0.642	0.639	0.00
## 11	0.000	0.639	0.00
## 12	0.642	0.639	0.00
## 13	0.642	0.639	0.00
## 14	0.000	0.000	0.44
## 15	0.642	0.000	0.44
## 16	0.642	0.639	0.00
## 17	0.642	0.639	0.44
## 18	0.000	0.639	0.00
## 19	0.642	0.000	0.44
## 20	0.642	0.639	0.00
## 21	0.642	0.639	0.00
## 22	0.642	0.000	0.44
## 23	0.642	0.639	0.00
## 24	0.642	0.000	0.44
## 25	0.642	0.639	0.00
## 26	0.642	0.639	0.00
## 27	0.642	0.639	0.00
## 28	0.642	0.000	0.44
## 29	0.642	0.000	0.44
## 30	0.642	0.639	0.00
## 31	0.642	0.639	0.00
## 32	0.642	0.000	0.44
## 33	0.000	0.639	0.00
## 34	0.642	0.639	0.00
## 35	0.642	0.639	0.00
## 36	0.642	0.000	0.44
## 37	0.642	0.000	0.44
## 38	0.000	0.639	0.00
## 39	0.000	0.000	0.44
## 40	0.642	0.639	0.00
## 41	0.000	0.639	0.00
## 42	0.642	0.000	0.44
## 43	0.642	0.639	0.00
## 44	0.642	0.639	0.00
## 45	0.642	0.000	0.44
## 46	0.000	0.639	0.00
## 47	0.642	0.639	0.44
## 48	0.642	0.639	0.00
## 49	0.642	0.000	0.44

## 50	0.642	0.639	0.00
## 51	0.642	0.639	0.00
## 52	0.000	0.000	0.44
## 53	0.642	0.639	0.00
## 54	0.000	0.000	0.44
## 55	0.642	0.639	0.00
## 56	0.642	0.639	0.00
## 57	0.000	0.000	0.44
## 58	0.000	0.639	0.00
## 59	0.642	0.000	0.44
## 60	0.000	0.639	0.00
## 61	0.642	0.639	0.00
## 62	0.642	0.000	0.44
## 63	0.000	0.639	0.00
## 64	0.642	0.000	0.44
## 65	0.642	0.639	0.00
## 66	0.642	0.639	0.00
## 67	0.000	0.000	0.44
## 68	0.000	0.639	0.00
## 69	0.642	0.000	0.44
## 70	0.642	0.639	0.00
## 71	0.000	0.639	0.00
## 72	0.642	0.000	0.44
## 73	0.642	0.639	0.00
## 74	0.642	0.639	0.00
## 75	0.000	0.000	0.44
## 76	0.642	0.639	0.00
## 77	0.000	0.000	0.44
## 78	0.642	0.639	0.00
## 79	0.000	0.000	0.44
## 80	0.000	0.639	0.00
## 81	0.642	0.639	0.00
## 82	0.000	0.639	0.00
## 83	0.642	0.639	0.00
## 84	0.642	0.000	0.44
## 85	0.000	0.639	0.00
## 86	0.642	0.639	0.00
## 87	0.642	0.639	0.00
## 88	0.642	0.639	0.00
## 89	0.642	0.639	0.00
## 90	0.642	0.639	0.44
## 91	0.000	0.639	0.00
## 92	0.000	0.639	0.00
## 93	0.642	0.000	0.44
## 94	0.000	0.639	0.00
## 95	0.642	0.639	0.00
## 96	0.000	0.639	0.00
## 97	0.000	0.000	0.44
## 98	0.642	0.639	0.00
## 99	0.000	0.639	0.00
## 100	0.642	0.639	0.00
## 101	0.642	0.000	0.44
## 102	0.000	0.639	0.00
## 103	0.000	0.000	0.44

## 104	0.642	0.639	0.00
## 105	0.642	0.639	0.00
## 106	0.642	0.639	0.00
## 107	0.642	0.000	0.00
## 108	0.642	0.639	0.00
## 109	0.642	0.639	0.00
## 110	0.642	0.000	0.00
## 111	0.000	0.639	0.00
## 112	0.642	0.639	0.00
## 113	0.000	0.000	0.00
## 114	0.642	0.639	0.00
## 115	0.000	0.000	0.00
## 116	0.642	0.639	0.00
## 117	0.642	0.000	0.00
## 118	0.000	0.000	0.00
## 119	0.642	0.639	0.00
## 120	0.000	0.639	0.00
## 121	0.642	0.000	0.00
## 122	0.642	0.639	0.00
## 123	0.642	0.000	0.00
## 124	0.642	0.639	0.00
## 125	0.642	0.639	0.00
## 126	0.000	0.000	0.00
## 127	0.642	0.639	0.00
## 128	0.642	0.639	0.00
## 129	0.642	0.000	0.00
## 130	0.000	0.639	0.00
## 131	0.642	0.000	0.00
## 132	0.000	0.639	0.00
## 133	0.642	0.000	0.00
## 134	0.000	0.000	0.00
## 135	0.642	0.639	0.00
## 136	0.642	0.000	0.00
## 137	0.642	0.639	0.00
## 138	0.642	0.000	0.00
## 139	0.642	0.639	0.00
## 140	0.000	0.000	0.00
## 141	0.000	0.000	0.00
## 142	0.642	0.639	0.00
## 143	0.000	0.000	0.00
## 144	0.642	0.639	0.00
## 145	0.000	0.000	0.00
## 146	0.642	0.639	0.00
## 147	0.000	0.000	0.00
## 148	0.000	0.000	0.00
## 149	0.642	0.639	0.00
## 150	0.642	0.000	0.00
## 151	0.000	0.639	0.00
## 152	0.642	0.000	0.00
## 153	0.000	0.000	0.00
## 154	0.000	0.639	0.00
## 155	0.642	0.000	0.44
## 156	0.642	0.000	0.00
## 157	0.642	0.639	0.00

## 158	0.642	0.000	0.00
## 159	0.642	0.000	0.44
## 160	0.000	0.000	0.00
## 161	0.642	0.639	0.00
## 162	0.000	0.000	0.44
##	mcgur002_ops_season		
## 1	0.000		
## 2	0.000		
## 3	0.000		
## 4	0.000		
## 5	0.000		
## 6	0.000		
## 7	0.000		
## 8	0.000		
## 9	0.000		
## 10	0.000		
## 11	0.000		
## 12	0.000		
## 13	0.000		
## 14	0.000		
## 15	0.000		
## 16	0.000		
## 17	0.000		
## 18	0.000		
## 19	0.000		
## 20	0.000		
## 21	0.000		
## 22	0.000		
## 23	0.000		
## 24	0.000		
## 25	0.000		
## 26	0.000		
## 27	0.000		
## 28	0.000		
## 29	0.000		
## 30	0.000		
## 31	0.000		
## 32	0.000		
## 33	0.000		
## 34	0.000		
## 35	0.000		
## 36	0.000		
## 37	0.000		
## 38	0.000		
## 39	0.000		
## 40	0.000		
## 41	0.000		
## 42	0.000		
## 43	0.000		
## 44	0.000		
## 45	0.000		
## 46	0.000		
## 47	0.000		
## 48	0.000		

## 49	0.000
## 50	0.000
## 51	0.000
## 52	0.000
## 53	0.000
## 54	0.000
## 55	0.000
## 56	0.000
## 57	0.000
## 58	0.000
## 59	0.000
## 60	0.000
## 61	0.000
## 62	0.000
## 63	0.000
## 64	0.000
## 65	0.000
## 66	0.000
## 67	0.000
## 68	0.000
## 69	0.000
## 70	0.000
## 71	0.000
## 72	0.000
## 73	0.000
## 74	0.000
## 75	0.000
## 76	0.000
## 77	0.000
## 78	0.000
## 79	0.000
## 80	0.000
## 81	0.000
## 82	0.000
## 83	0.000
## 84	0.000
## 85	0.000
## 86	0.000
## 87	0.000
## 88	0.000
## 89	0.000
## 90	0.000
## 91	0.000
## 92	0.000
## 93	0.000
## 94	0.000
## 95	0.000
## 96	0.000
## 97	0.000
## 98	0.000
## 99	0.000
## 100	0.000
## 101	0.000
## 102	0.000

## 103	0.000
## 104	0.000
## 105	0.000
## 106	0.000
## 107	0.872
## 108	0.000
## 109	0.000
## 110	0.872
## 111	0.000
## 112	0.000
## 113	0.872
## 114	0.000
## 115	0.872
## 116	0.000
## 117	0.872
## 118	0.872
## 119	0.000
## 120	0.000
## 121	0.872
## 122	0.000
## 123	0.872
## 124	0.000
## 125	0.000
## 126	0.872
## 127	0.000
## 128	0.000
## 129	0.872
## 130	0.000
## 131	0.872
## 132	0.000
## 133	0.872
## 134	0.872
## 135	0.000
## 136	0.872
## 137	0.000
## 138	0.872
## 139	0.000
## 140	0.000
## 141	0.872
## 142	0.000
## 143	0.872
## 144	0.000
## 145	0.872
## 146	0.000
## 147	0.872
## 148	0.872
## 149	0.000
## 150	0.872
## 151	0.000
## 152	0.872
## 153	0.872
## 154	0.000
## 155	0.000
## 156	0.872


```
## 157          0.000
## 158          0.872
## 159          0.000
## 160          0.872
## 161          0.000
## 162          0.000
```

create tor_games_game subset, training data - player performance in game

```
tor_games_training <- data.frame(tor_games$game_date,tor_games$tor_runs,tor_games$drurb001_ops_game,tor_g
names(tor_games_training) <- c('game_date','tor_runs','drurb001_ops','bichb001_ops','biggc002_ops','dav
```

create tor_games_todate subset, test data - player performance average to date

```
tor_games_test <- data.frame(tor_games$game_date,tor_games$tor_runs,tor_games$drurb001_ops_todate,tor_g
names(tor_games_test) <- c('game_date','tor_runs','drurb001_ops','bichb001_ops','biggc002_ops','davi
```

train regression model - ops game

```
model_fit <- lm(tor_runs~drurb001_ops+bichb001_ops+biggc002_ops+davij007_ops+fishd001_ops+galvf001_ops+
summary(model_fit)
```

```
##
## Call:
## lm(formula = tor_runs ~ drurb001_ops + bichb001_ops + biggc002_ops +
##     davij007_ops + fishd001_ops + galvf001_ops + gricr001_ops +
##     guerv002_ops + hernt002_ops + gurr1001_ops + jansd001_ops +
##     maill001_ops + mcgur002_ops + mckib001_ops + pillk001_ops +
##     smoj001_ops + sogae001_ops + tellr001_ops, data = tor_games_training)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.3852 -1.1203  0.0071  0.9453  7.1346
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -2.7098     0.4131  -6.560 9.20e-10 ***
## drurb001_ops    1.3774     0.2536   5.432 2.33e-07 ***
## bichb001_ops    1.3337     0.3264   4.086 7.29e-05 ***
## biggc002_ops    1.1713     0.2163   5.416 2.52e-07 ***
## davij007_ops    1.5396     0.5728   2.688 0.008048 **
## fishd001_ops    0.5492     0.4643   1.183 0.238805
## galvf001_ops    0.9440     0.2260   4.176 5.13e-05 ***
## gricr001_ops    1.0664     0.2176   4.900 2.57e-06 ***
## guerv002_ops    1.3689     0.2212   6.189 6.04e-09 ***
## hernt002_ops    1.1310     0.1719   6.578 8.35e-10 ***
## gurr1001_ops    1.2459     0.2424   5.139 8.90e-07 ***
## jansd001_ops    1.2664     0.2600   4.870 2.92e-06 ***
## maill001_ops    1.8373     0.4785   3.839 0.000185 ***
## mcgur002_ops    0.6643     0.3413   1.946 0.053557 .
```

```
## mckib001_ops    1.4404      0.2846    5.062 1.26e-06 ***
## pillk001_ops    8.6122      3.6288    2.373 0.018960 *
## smoaj001_ops    0.6643      0.2243    2.961 0.003591 **
## sogae001_ops    1.2585      0.2468    5.100 1.06e-06 ***
## tellr001_ops    1.2400      0.2345    5.288 4.54e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.777 on 143 degrees of freedom
## Multiple R-squared:  0.7321, Adjusted R-squared:  0.6983
## F-statistic: 21.71 on 18 and 143 DF,  p-value: < 2.2e-16
```

use predictive model on Training data - ops todate

```
model_predict_training <- predict(model_fit, tor_games_training)
actuals_preds_training <- data.frame(cbind(actuals=tor_games_training$tor_runs, predicted=model_predict_training))
correlation_accuracy_training <- cor(actuals_preds_training)
correlation_accuracy_training
```

```
##              actuals predicted
## actuals      1.000000  0.8556114
## predicted 0.8556114  1.0000000
```

```
actuals_preds_training
```

```
##      actuals predicted
## 1         0 -1.0426232
## 2         6  3.0658886
## 3         3  3.2674910
## 4         3  3.0000000
## 5         5  4.1697355
## 6         1  2.2702887
## 7         5  7.1045755
## 8         1  0.9517692
## 9         2  0.6249716
## 10        2  5.2238989
## 11        1  0.2832824
## 12        7  3.8206871
## 13        6  5.7311295
## 14        7  4.8856899
## 15        3  2.8760159
## 16        4  3.3873936
## 17        5  5.7487001
## 18        6  2.8848037
## 19        1  2.3629008
## 20        7  5.2915881
## 21        5  3.7005807
## 22       10  9.0976798
## 23        5  5.3338329
## 24        6  3.4849005
## 25        0 -0.9131677
## 26        4  5.3561113
## 27        7  7.3020178
## 28        5  3.9689540
```

## 29	3	2.5319739
## 30	3	3.3850083
## 31	2	2.3570965
## 32	1	3.1331617
## 33	5	4.7568335
## 34	2	3.8566855
## 35	0	-0.1320322
## 36	0	2.0645148
## 37	1	0.6440291
## 38	4	3.8100087
## 39	2	6.3852224
## 40	1	0.4299159
## 41	7	5.9879631
## 42	3	1.7781652
## 43	2	0.3318775
## 44	10	10.3656120
## 45	1	3.0883470
## 46	5	5.8816029
## 47	2	1.6909328
## 48	10	8.1969044
## 49	5	4.4693085
## 50	2	2.2334390
## 51	3	2.0022361
## 52	4	2.4260034
## 53	10	10.0289434
## 54	3	4.5742271
## 55	1	2.0442471
## 56	3	5.4705090
## 57	6	7.6232681
## 58	2	1.8338089
## 59	1	2.2863583
## 60	4	4.8614893
## 61	11	8.8984844
## 62	2	3.9730618
## 63	2	2.2990326
## 64	0	1.7754572
## 65	2	3.6507463
## 66	2	2.8871048
## 67	8	6.3226418
## 68	12	10.0687101
## 69	2	1.5208954
## 70	2	1.7728567
## 71	12	11.0094501
## 72	5	6.9640378
## 73	1	0.9056171
## 74	6	5.2279746
## 75	7	8.2463470
## 76	5	4.1526059
## 77	8	5.9511251
## 78	6	6.4939241
## 79	8	6.8343588
## 80	3	2.6635772
## 81	7	8.8921238
## 82	6	6.7879024

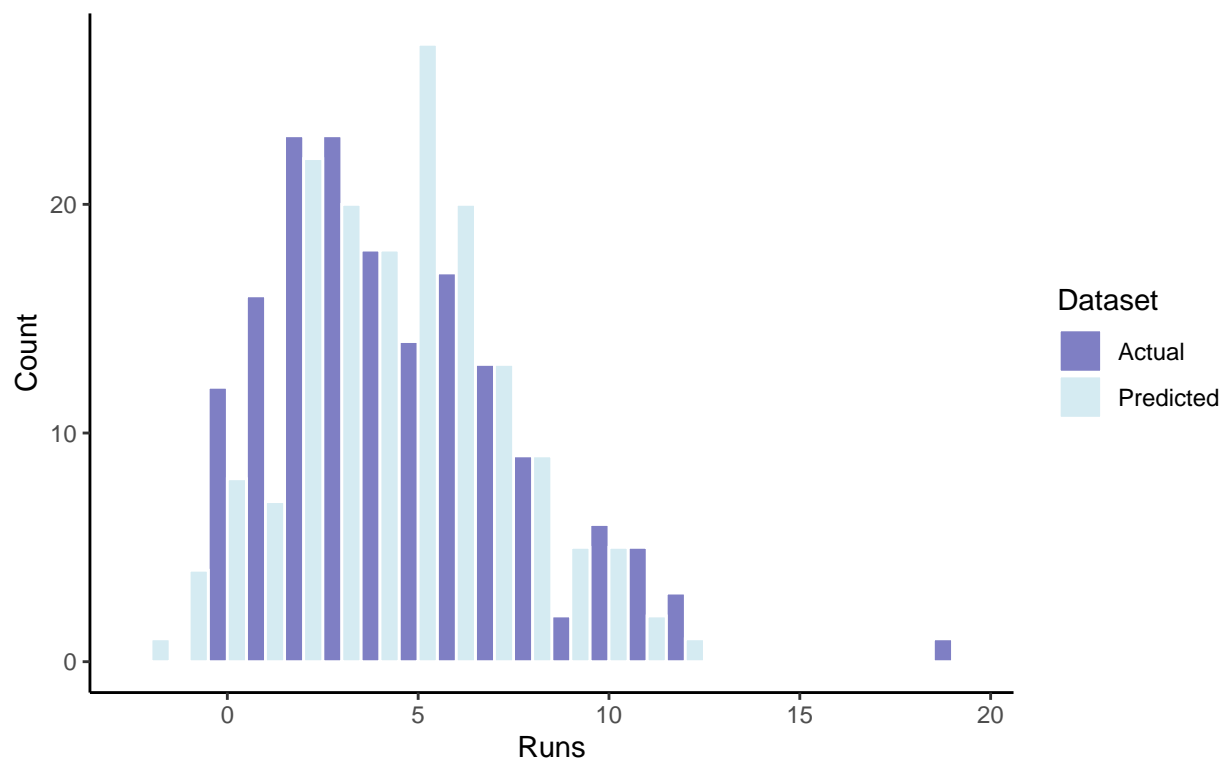
## 83	7	7.3425874
## 84	6	4.5779403
## 85	11	10.5789769
## 86	6	5.5037681
## 87	6	9.1432070
## 88	7	7.9992916
## 89	1	4.1754101
## 90	1	0.3259102
## 91	6	6.3012451
## 92	0	1.1355731
## 93	2	2.9396375
## 94	2	3.2915466
## 95	8	6.0710497
## 96	10	8.5812598
## 97	4	6.2858737
## 98	0	-0.1912836
## 99	12	6.7839012
## 100	7	7.0474454
## 101	3	2.2399616
## 102	3	4.6502096
## 103	2	3.0133285
## 104	0	-0.8951241
## 105	1	1.2261387
## 106	10	9.9460680
## 107	9	6.9272542
## 108	7	6.6916426
## 109	9	5.4579932
## 110	4	4.8188330
## 111	11	10.1406743
## 112	5	5.0177538
## 113	4	6.1214849
## 114	5	7.3712775
## 115	2	3.8368660
## 116	6	5.1286984
## 117	4	4.7741785
## 118	6	5.0439571
## 119	8	7.4915453
## 120	5	5.3611690
## 121	0	-0.0142897
## 122	19	11.8653565
## 123	3	5.4167726
## 124	3	3.7562677
## 125	7	8.4392590
## 126	3	3.7116802
## 127	0	-0.2081342
## 128	3	6.1578640
## 129	1	2.5596668
## 130	2	2.3438156
## 131	4	3.5885203
## 132	7	7.5995214
## 133	1	1.9506711
## 134	3	4.5399971
## 135	4	4.5076354
## 136	4	5.1983318

```
## 137      6  7.5606383
## 138      0 -2.3197085
## 139      3  2.0166414
## 140      2  2.2342956
## 141      4  5.0746726
## 142      0 -0.8882025
## 143      3  3.3673251
## 144      3  3.2775642
## 145      4  6.2970534
## 146      8  7.6224599
## 147      4  2.8414877
## 148      6  4.7570836
## 149      3  4.1623715
## 150      6  4.7640289
## 151      8  6.8986474
## 152     11  6.4277435
## 153      8  5.9767413
## 154      4  5.0720274
## 155      2  1.5775836
## 156      3  4.0490160
## 157     11  7.8762461
## 158      4  1.0065264
## 159      3  6.0576624
## 160      2  3.8658098
## 161      4  5.9454042
## 162      8  5.8739027
```

histogram of runs/game, Training data, actuals vs predicted

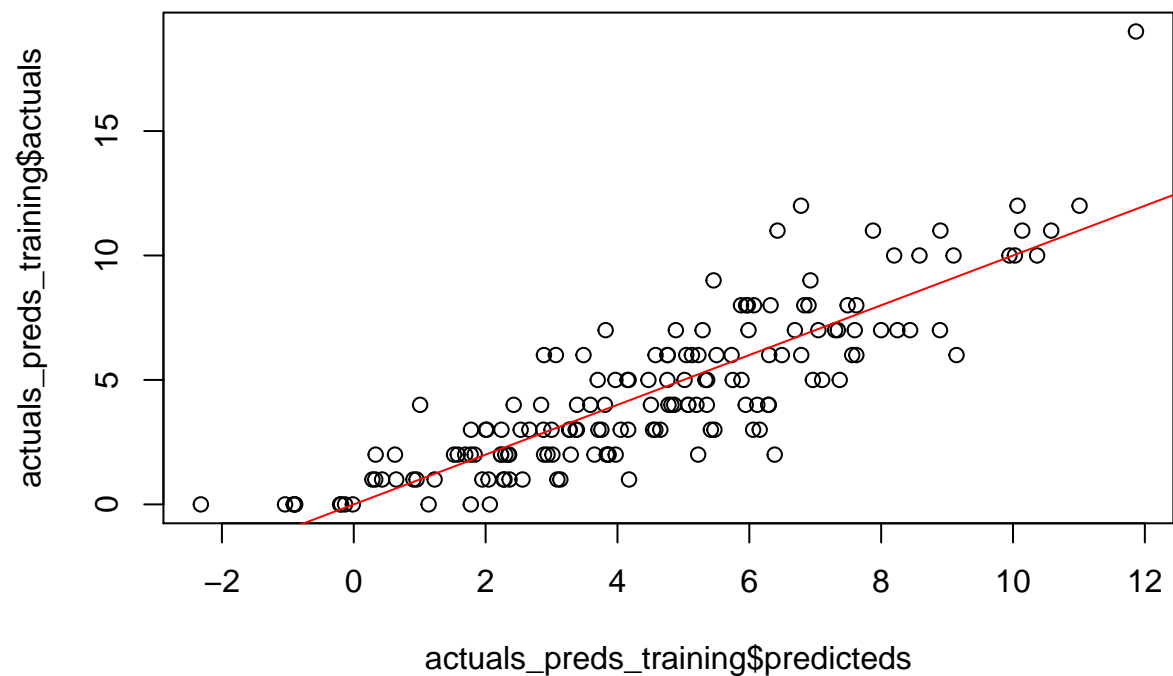
```
library(ggplot2)
actuals <- data.frame(tor_games_training$tor_runs)
actuals$dataset <- 'Actual'
names(actuals) <- c('Runs', 'Dataset')
predicted <- data.frame(model_predict_training)
predicted$dataset <- 'Predicted'
names(predicted) <- c('Runs', 'Dataset')
runs <- rbind(actuals, predicted)
ggplot(runs, aes(x=Runs, color=Dataset, fill=Dataset)) + geom_histogram(binwidth=1, alpha=0.5, position="dodge") +
  scale_color_manual(values=c("white", "white")) + labs(title="Histogram of Runs/Game by Toronto Blue Jays")
```

Histogram of Runs/Game by Toronto Blue Jays (2019 Season)
Actuals vs Training Set



plot of runs/game Training data, actuals vs predicted

```
plot(actuals_preds_training$predicted, actuals_preds_training$actuals)
abline(lm(actuals_preds_training$actuals ~ actuals_preds_training$predicted), col="red")
```



use predictive model on Test data - ops todate

```
model_predict_test <- predict(model_fit, tor_games_test)
actuals_preds_test <- data.frame(cbind(actuals=tor_games_test$tor_runs, predicted=model_predict_test))
correlation_accuracy_test <- cor(actuals_preds_test)
correlation_accuracy_test
```

```
##           actuals predicteds
## actuals    1.0000000  0.2793119
## predicted 0.2793119  1.0000000
```

```
actuals_preds_test
```

```
##      actuals predicteds
## 1         0  -1.042623
## 2         6   1.470699
## 3         3   1.980454
## 4         3   1.250931
## 5         5   3.364078
## 6         1   2.591761
## 7         5   3.934331
## 8         1   2.204180
## 9         2   3.114585
## 10        2   3.474648
## 11        1   1.937746
## 12        7   2.128751
## 13        6   3.211835
## 14        7   3.282512
## 15        3   4.170841
## 16        4   3.130675
## 17        5   3.794798
## 18        6   3.631605
## 19        1   5.381859
## 20        7   4.737087
## 21        5   3.764753
## 22       10   5.382216
## 23        5   3.746940
## 24        6   3.863605
## 25        0   3.025011
## 26        4   5.118561
## 27        7   4.278225
## 28        5   4.808266
## 29        3   5.235937
## 30        3   4.238544
## 31        2   4.052528
## 32        1   4.840419
## 33        5   4.028341
## 34        2   4.660855
## 35        0   4.443864
## 36        0   4.113364
## 37        1   4.116986
## 38        4   3.304819
## 39        2   4.543346
## 40        1   2.986193
```

## 41	7	3.019187
## 42	3	3.841046
## 43	2	3.677623
## 44	10	4.815251
## 45	1	3.710043
## 46	5	4.206622
## 47	2	2.855205
## 48	10	4.103064
## 49	5	4.469673
## 50	2	4.348175
## 51	3	3.541878
## 52	4	3.205053
## 53	10	4.978497
## 54	3	4.998789
## 55	1	4.529560
## 56	3	4.354363
## 57	6	4.190464
## 58	2	3.492279
## 59	1	3.906217
## 60	4	4.608649
## 61	11	4.400843
## 62	2	4.883306
## 63	2	4.708887
## 64	0	4.713843
## 65	2	4.197164
## 66	2	4.551542
## 67	8	4.469002
## 68	12	4.783325
## 69	2	4.941469
## 70	2	4.652328
## 71	12	5.025109
## 72	5	5.226151
## 73	1	5.197506
## 74	6	5.173173
## 75	7	5.400860
## 76	5	5.086962
## 77	8	5.403573
## 78	6	5.262554
## 79	8	5.620143
## 80	3	5.184451
## 81	7	5.052377
## 82	6	4.947519
## 83	7	5.148039
## 84	6	5.126142
## 85	11	5.456306
## 86	6	5.234597
## 87	6	5.079779
## 88	7	5.176841
## 89	1	4.935035
## 90	1	5.001104
## 91	6	5.196682
## 92	0	4.997735
## 93	2	5.577321
## 94	2	4.936959

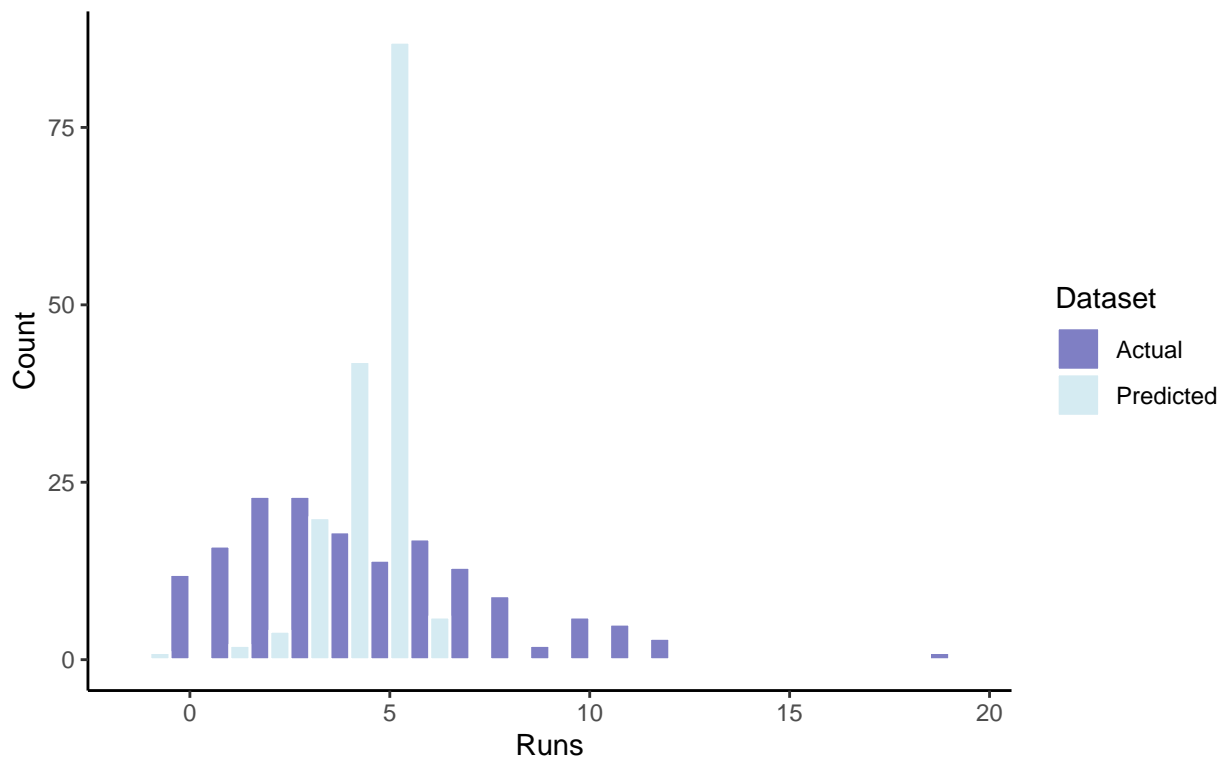
## 95	8	5.083181
## 96	10	5.066900
## 97	4	4.991073
## 98	0	4.729552
## 99	12	5.169601
## 100	7	5.344793
## 101	3	4.998907
## 102	3	5.127890
## 103	2	4.740585
## 104	0	4.910191
## 105	1	4.616808
## 106	10	5.272517
## 107	9	4.503749
## 108	7	4.621907
## 109	9	5.368613
## 110	4	5.095649
## 111	11	5.448293
## 112	5	5.118679
## 113	4	4.566321
## 114	5	5.793811
## 115	2	4.576424
## 116	6	6.053443
## 117	4	4.392638
## 118	6	5.006290
## 119	8	5.318033
## 120	5	4.804052
## 121	0	4.251579
## 122	19	5.121203
## 123	3	5.330730
## 124	3	5.344602
## 125	7	4.981422
## 126	3	4.805923
## 127	0	5.297898
## 128	3	4.187622
## 129	1	4.470547
## 130	2	4.468447
## 131	4	4.506052
## 132	7	5.510751
## 133	1	4.902867
## 134	3	4.671090
## 135	4	5.336766
## 136	4	4.608869
## 137	6	5.197115
## 138	0	5.123787
## 139	3	4.244342
## 140	2	3.418549
## 141	4	4.536798
## 142	0	4.410884
## 143	3	4.433292
## 144	3	4.453260
## 145	4	4.298100
## 146	8	5.301951
## 147	4	4.587623
## 148	6	4.573345

```
## 149      3  5.138917
## 150      6  4.380464
## 151      8  5.512377
## 152     11  4.937190
## 153      8  4.824248
## 154      4  3.344926
## 155      2  4.322719
## 156      3  3.235484
## 157     11  5.278189
## 158      4  2.854447
## 159      3  4.106472
## 160      2  3.782884
## 161      4  2.989665
## 162      8  2.927935
```

histogram of runs/game, test set, actuals vs predicted

```
actuals <- data.frame(tor_games_training$tor_runs)
actuals$dataset <- 'Actual'
names(actuals) <- c('Runs', 'Dataset')
predicted <- data.frame(model_predict_test)
predicted$dataset <- 'Predicted'
names(predicted) <- c('Runs', 'Dataset')
runs <- rbind(actuals, predicted)
ggplot(runs, aes(x=Runs, color=Dataset, fill=Dataset)) + geom_histogram(binwidth=1, alpha=0.5, position='dodge') +
  scale_color_manual(values=c("white", "white")) + labs(title="Histogram of Runs/Game by Toronto Blue Jays")
```

Histogram of Runs/Game by Toronto Blue Jays (2019 Season)
Actuals vs Test Set



plot of runs/game Test data, actuals vs predicted

```
plot(actuals_preds_test$predicted, actuals_preds_test$actuals)
abline(lm(actuals_preds_test$actuals~actuals_preds_test$predicted), col="red")
```

