Work Assignments Codebook

Work Assignments

- officer_id: Unique identifier for each officer.
- month: Month of the shift in YYYY-MM-DD format. The day is always the first day of the month.
- rank: Rank of the officer assigned to the shift.
- unit: Unit of the officer assigned to the shift.
- date: Date of the shift in YYYY-MM-DD format.
- **shift**: The shift the officer is assigned to.
- start time: Hour start time of the shift in military time.
- end_time: Hour end time of the shift in military time.
- weekday: Day of the week of the shift.
- beat_assigned: The beat the officer is assigned to.
- appointed month: The month and year the officer was made an officer.
- months_from_start: The number of months between the officer's appointment date and their shift date.
- months_from_start_sq: The number of months between the officer's appointment date and their shift date, squared.
- duration: Length of the shift in hours.
- Uniquely identified by **officer_id** and **date**. The unit of observation is a specific work assignment for a specific officer.
- Number of shift assignments: 3519518
- Number of unique officers: r length(unique(assignments\$officer_id))

variable	value	nr prop nr_unique
rank	POLICE OFFICER	3,050,853 0.867 19
rank	SERGEANT	281,965 0.080 19
rank	POLICE OFFICER / FLD TRNG OFFICER	74,751 0.021 19
rank		$53,765 \qquad 0.015 \ 19$

variable	value	nr	prop nr_unique
rank	POLICE OFFICER (ASSIGNED AS DETECTIVE)	28,077	0.008 19
rank	COMMANDER	16,467	0.005 19
rank	LIEUTENANT	4,678	0.001 19
rank	POLICE OFFICER (ASSIGNED AS SECURITY SPECIALIST)	3,918	0.001 19
rank	POLICE OFFICER (PER ARBITRATION AWARD)	2,909	0.001 19
rank	POLICE OFFICER (ASSIGNED AS CANINE HANDLER)	1,080	0.000 19
rank	DEPUTY CHIEF	350	0.000 19
rank	POLICE AGENT	275	0.000 19
rank	EXPLOSIVES TECHNICIAN I	218	0.000 19
rank	POLICE OFFICER (ASGND AS MARINE OFFICER)	84	0.000 19
rank	POLICE OFFICER (ASSIGNED AS EVIDENCE TECHNICIAN)	77	0.000 19
rank	CHIEF	47	0.000 19
rank	SERGEANT (PER ARBTRN AGR)	2	0.000 19
rank	POLICE LEGAL OFFICER I	1	0.000 19
rank	POLICE LEGAL OFFICER II	1	0.000 19
shift	3	1,331,644	0.378 3
shift	2	1,204,317	0.342 3
shift	1	983,557	0.279 3
unit	7	210,250	$0.060\ 25$
unit	8	200,102	$0.057\ 25$
unit	11	197,317	$0.056\ 25$
unit	2	194,330	$0.055\ 25$
unit	12	191,057	$0.054\ 25$
unit	9	185,394	$0.053\ 25$
unit	19	184,942	0.053 25
unit	3	182,661	$0.052\ 25$
unit	6	179,211	0.051 25

variable	value	nr	prop nr_unique
unit	4	176,369	0.050 25
unit	25	169,000	$0.048\ 25$
unit	10	149,365	$0.042\ 25$
unit	24	144,866	$0.041\ 25$
unit	15	139,062	$0.040\ 25$
unit	18	137,113	$0.039\ 25$
unit	22	132,216	$0.038\ 25$
unit	5	131,301	$0.037\ 25$
unit	14	124,804	$0.035\ 25$
unit	1	117,569	$0.033\ 25$
unit	20	114,630	$0.033\ 25$
unit	17	114,422	$0.033\ 25$
unit	16	110,579	$0.031\ 25$
unit	13	23,516	$0.007\ 25$
unit	23	4,846	$0.001\ 25$
unit	21	4,596	$0.001\ 25$
weekday	Tue	547,248	0.155 7
weekday	Wed	546,066	0.155 7
weekday	Thu	538,404	0.153 7
weekday	Fri	515,802	0.147 7
weekday	Mon	508,085	0.144 7
weekday	Sat	436,811	0.124 7
weekday	Sun	427,102	0.121 7
beat_assigned	1 302	12,486	0.004 6,616
beat_assigned	1 2502	12,445	0.004 6,616
beat_assigned	1 202	12,072	0.003 6,616
beat_assigned	d 1902	11,923	0.003 6,616

variable	value	nr	prop nr_unique
beat_assigned	702	11,786	0.003 6,616
beat_assigned	1802	11,654	0.003 6,616
beat_assigned	1102	11,023	0.003 6,616
beat_assigned	102	10,265	0.003 6,616
beat_assigned	502	9,772	0.003 6,616
beat_assigned	402	9,534	0.003 6,616

variable	mean	sd	min	p25	median	p75	max	iqr	mad	nr_missing	prop_missing
duration	8.929	0.390	0.0	9	9	9.0	23.5	0.0	0.000	48,210	0.014
end_time	22.801	6.101	0.5	16	23	29.5	46.0	13.5	10.378	48,210	0.014
months_from_start	172.177	83.778	1.0	107	172	230.0	646.0	123.0	90.439	778	0.000
months_from_start_sq	36,663.506	31,136.199	1.0	11,449	29,584	52,900.0	417,316.0	41,451.0	29,330.276	778	0.000
start_time	13.872	6.021	0.0	7	14	20.5	23.5	13.5	10.378	48,210	0.014

variable	nr_rows	nr_unique nr	_missing prop_	_missing
officer_id	3,519,518	8,502	0	0

variable	min	p25	median	p75	max	nr_missing	prop_missing
date	2012-01-01	2012-12-12	2013-12-20	2014-12-22	2016-01-01	0	0

variable	unit_of_time	value	n	prop
date	day	1	115,249	0.033
date	day	2	116,403	0.033
date	day	3	117,259	0.033
date	day	4	115,539	0.033
date	day	5	115,698	0.033
date	day	6	116,659	0.033

variable	unit_of_time	value	n	prop
date	day	7	115,764	0.033
date	day	8	115,380	0.033
date	day	9	117,673	0.033
date	day	10	117,736	0.033
date	day	11	116,355	0.033
date	day	12	115,128	0.033
date	day	13	116,778	0.033
date	day	14	116,120	0.033
date	day	15	116,293	0.033
date	day	16	116,228	0.033
date	day	17	117,106	0.033
date	day	18	116,857	0.033
date	day	19	114,840	0.033
date	day	20	113,944	0.032
date	day	21	113,727	0.032
date	day	22	114,919	0.033
date	day	23	116,363	0.033
date	day	24	115,496	0.033
date	day	25	112,863	0.032
date	day	26	113,590	0.032
date	day	27	114,323	0.032
date	day	28	114,010	0.032
date	day	29	107,068	0.030
date	day	30	107,238	0.030
date	day	31	66,912	0.019
date	month	1	325,715	0.093
date	month	2	290,736	0.083

variable	unit_of_time	value	n	prop
date	month	3	306,344	0.087
date	month	4	294,192	0.084
date	month	5	303,018	0.086
date	month	6	285,139	0.081
date	month	7	282,029	0.080
date	month	8	283,371	0.081
date	month	9	290,104	0.082
date	month	10	303,180	0.086
date	month	11	284,225	0.081
date	month	12	271,465	0.077
date	year	2,012	922,972	0.262
date	year	2,013	858,413	0.244
date	year	2,014	878,666	0.250
date	year	2,015	857,713	0.244
date	year	2,016	1,754	0.000