1)
```
data Medicare;
infile 'MedicareProvider.txt' dlm='09'x dsd obs=10;
input NPI NPPES_CREDENTIALS $ NPPES_PROVIDER_GENDER $ NPPES_ENTITY_CODE
$
NPPES_PROVIDER_ZIP $ NPPES_PROVIDER_STATE $ PROVIDER_TYPE $
MEDICARE_PARTICIPATION_INDICATOR $ PLACE_OF_SERVICE $ HCPCS_CODE $
HCPCS_DRUG_INDICATOR $ LINE_SRVC_CNT BENE_UNIQUE_CNT
BENE_DAY_SRVC_CNT
AVERAGE_MEDICARE_ALLOWED_AMT STDEV_MEDICARE_ALLOWED_AMT
AVERAGE_SUBMITTED_CHRG_AMT STDEV_SUBMITTED_CHRG_AMT
AVERAGE_MEDICARE_PAYMENT_AMT
STDEV_MEDICARE_PAYMENT_AMT;
run;
proc print data=Medicare;
run;
```
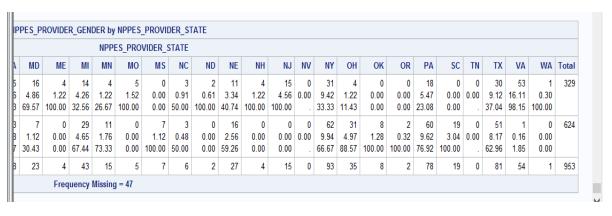
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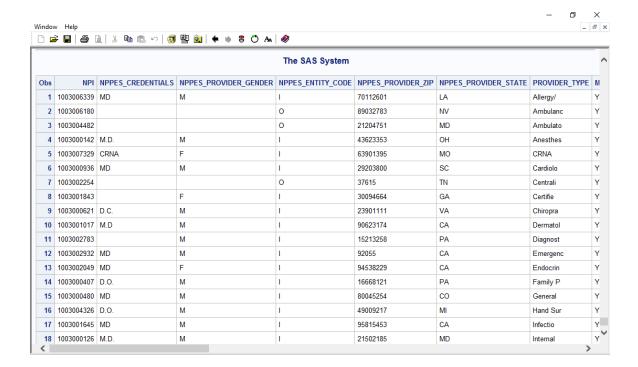| Obs	NPI	NPPES_CREDENTIALS	NPPES_PROVIDER_GENDER	NPPES_ENTITY_CODE	NPPES_PROVIDER_ZIP	NPPES_PROVIDER_STATE	PROVIDER_TYPE
1	1003000126	M.D.	M	I	21502185	MD	Internal
2	1003000126	M.D.	M	I	21502185	MD	Internal
3	1003000126	M.D.	M	I	21502185	MD	Internal
4	1003000126	M.D.	M	I	21502185	MD	Internal
5	1003000126	M.D.	M	I	21502185	MD	Internal
6	1003000126	M.D.	M	I	21502185	MD	Internal
7	1003000126	M.D.	M	I	21502185	MD	Internal
8	1003000134	M.D.	M	I	60201171	IL	Patholog
9	1003000134	M.D.	M	I	60201171	IL	Patholog
10	1003000134	M.D.	M	I	60201171	IL	Patholog

```
proc freq data=Medicare;
   tables NPPES_PROVIDER_GENDER*NPPES_PROVIDER_STATE / nopercent;
run;
```

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The FREQ Procedure

Table of NPPES_PROVIDER_GENDER by NPPES_PROVIDER_

NPPES_PROVIDER_GENDER	AZ	CA	CO	CT	DC	FL	GA	IA	IL	IN	KY	LA	MA	MD	ME	MI	MN	MO	MS	N
F	0	24	1	0	4	25	1	5	16	7	16	0	15	16	4	14	4	5	0	
	0.00	7.29	0.30	0.00	1.22	7.60	0.30	1.52	4.86	2.13	4.86	0.00	4.56	4.86	1.22	4.26	1.22	1.52	0.00	0.9
	0.00	22.64	5.88	.	100.00	33.78	3.13	12.50	23.19	53.85	100.00	0.00	83.33	69.57	100.00	32.56	26.67	100.00	0.00	50.0
M	40	82	16	0	0	49	31	35	53	6	0	2	3	7	0	29	11	0	7	
	6.41	13.14	2.56	0.00	0.00	7.85	4.97	5.61	8.49	0.96	0.00	0.32	0.48	1.12	0.00	4.65	1.76	0.00	1.12	0.4
	100.00	77.36	94.12	.	0.00	66.22	96.88	87.50	76.81	46.15	0.00	100.00	16.67	30.43	0.00	67.44	73.33	0.00	100.00	50.0
Total	40	106	17	0	4	74	32	40	69	13	16	2	18	23	4	43	15	5	7	

Frequency Missing = 47

	MD	ME	MI	MN	MO	MS	NC	ND	NE	NH	NJ	NV	NY	OH	OK	OR	PA	SC	TN	TX	VA	WA	Total

NPPES_PROVIDER_GENDER by NPPES_PROVIDER_STATE

	MD	ME	MI	MN	MO	MS	NC	ND	NE	NH	NJ	NV	NY	OH	OK	OR	PA	SC	TN	TX	VA	WA	Total
	16	4	14	4	5	0	3	2	11	4	15	0	31	4	0	0	18	0	0	30	53	1	329
	4.86	1.22	4.26	1.22	1.52	0.00	0.91	0.61	3.34	1.22	4.56	0.00	9.42	1.22	0.00	0.00	5.47	0.00	0.00	9.12	16.11	0.30	
	69.57	100.00	32.56	26.67	100.00	0.00	50.00	100.00	40.74	100.00	100.00	.	33.33	11.43	0.00	0.00	23.08	0.00	.	37.04	98.15	100.00	
	7	0	29	11	0	7	3	0	16	0	0	0	62	31	8	2	60	19	0	51	1	0	624
	1.12	0.00	4.65	1.76	0.00	1.12	0.48	0.00	2.56	0.00	0.00	0.00	9.94	4.97	1.28	0.32	9.62	3.04	0.00	8.17	0.16	0.00	
	30.43	0.00	67.44	73.33	0.00	100.00	50.00	0.00	59.26	0.00	0.00	.	66.67	88.57	100.00	100.00	76.92	100.00	.	62.96	1.85	0.00	
	23	4	43	15	5	7	6	2	27	4	15	0	93	35	8	2	78	19	0	81	54	1	953

Frequency Missing = 47

```
proc freq data=Medicare;
   tables NPPES_PROVIDER_GENDER*NPPES_PROVIDER_STATE / nopercent;
run;
proc sort data=work.medicare;
   by PROVIDER_TYPE;
run;
data providers;
   set Medicare;
   by PROVIDER_TYPE;
   if first.PROVIDER_TYPE then output;
run;
proc print data=providers;
run;
```

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Obs	NPI	NPPES_CREDENTIALS	NPPES_PROVIDER_GENDER	NPPES_ENTITY_CODE	NPPES_PROVIDER_ZIP	NPPES_PROVIDER_STATE	PROVIDER_TYPE	M
1	1003006339	MD	M	I	70112601	LA	Allergy/	Y
2	1003006180			O	89032783	NV	Ambulanc	Y
3	1003004482			O	21204751	MD	Ambulato	Y
4	1003000142	M.D.	M	I	43623353	OH	Anesthes	Y
5	1003007329	CRNA	F	I	63901395	MO	CRNA	Y
6	1003000936	MD	M	I	29203800	SC	Cardiolo	Y
7	1003002254			O	37615	TN	Centrali	Y
8	1003001843		F	I	30094664	GA	Certifie	Y
9	1003000621	D.C.	M	I	23901111	VA	Chiropra	Y
10	1003001017	M.D	M	I	90623174	CA	Dermatol	Y
11	1003002783		M	I	15213258	PA	Diagnost	Y
12	1003002932	MD	M	I	92055	CA	Emergenc	Y
13	1003002049	MD	F	I	94538229	CA	Endocrin	Y
14	1003000407	D.O.	M	I	16668121	PA	Family P	Y
15	1003000480	MD	M	I	80045254	CO	General	Y
16	1003004326	D.O.	M	I	49009217	MI	Hand Sur	Y
17	1003001645	MD	M	I	95815453	CA	Infectio	Y
18	1003000126	M.D.	M	I	21502185	MD	Internal	Y

```
proc freq data=providers;
   tables NPPES_PROVIDER_GENDER*NPPES_PROVIDER_STATE / nopercent;
run;
```

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The FREQ Procedure

Table of NPPES_PROVIDER_GENDER by NPPES_PROVIDER_STATE

NPPES_PROVIDER_GENDER	NPPES_PROVIDER_STATE																		
	CA	CO	FL	GA	IL	LA	MD	ME	MI	MO	NE	NV	OH	PA	SC	TN	TX	VA	Total
F	2	0	1	1	1	0	0	1	1	1	0	0	1	0	0	0	2	0	11
	18.18	0.00	9.09	9.09	9.09	0.00	0.00	9.09	9.09	9.09	0.00	0.00	9.09	0.00	0.00	0.00	18.18	0.00	
	33.33	0.00	100.00	50.00	33.33	0.00	0.00	100.00	33.33	100.00	0.00	.	50.00	0.00	0.00	.	66.67	0.00	
M	4	1	0	1	2	1	1	0	2	0	1	0	1	2	1	0	1	1	19
	21.05	5.26	0.00	5.26	10.53	5.26	5.26	0.00	10.53	0.00	5.26	0.00	5.26	10.53	5.26	0.00	5.26	5.26	
	66.67	100.00	0.00	50.00	66.67	100.00	100.00	0.00	66.67	0.00	100.00	.	50.00	100.00	100.00	.	33.33	100.00	
Total	6	1	1	2	3	1	1	1	3	1	1	0	2	2	1	0	3	1	30

Frequency Missing = 4