

## Pennsylvania Data Notes

### The Issue of Address Variations

Similar to other states, Pennsylvania data has many inconsistencies in address input, such that each address can have more than one version if an address is associated with multiple providers.

For example,

500 N LEWIS RUN RD STE 128,WEST MIFFLIN,PA,15122-3075	BRANDES, DEBORAH A	0.500000
500 N LEWIS RUN RD STE 215A,WEST MIFFLIN,PA,15122-3056	BUFALINI, GINA R	0.250000
	ELSON, HOWARD M	0.500000
500 N LEWIS RUN RD,WEST MIFFLIN,PA,15122-3056	BRANDES, DEBORAH A	0.500000

Looking at the same rows grouped by specialty:

500 N LEWIS RUN RD STE 128,WEST MIFFLIN,PA,15122-3075	pediatric	0.500000
500 N LEWIS RUN RD STE 215A,WEST MIFFLIN,PA,15122-3056	general	0.250000
	pediatric	0.500000
500 N LEWIS RUN RD,WEST MIFFLIN,PA,15122-3056	pediatric	0.500000

Row 1 and 3 appear to belong to the same provider. However, due to the address variations being treated as distinct, the provider Brandes is listed as having .5 head in each place. If these two lines of addresses are to be combined, the head value should be summed. It would not be right to simply delete one of the two rows.

Row 2 has a different suite number and different providers, and thus should be treated as a separate practice.

There were suggestions regarding whether GPS, rather than addresses, is a better index for grouping. From my observations, I found that GPS values can also have variations for the same address if the latter is spelled differently. Therefore, using GPS as index does not solve the address variation problem.

### Grouping Output Views

The users of the FTE output should consult the html file out put which gives various views of how data is grouped before it is reshaped into the final FTE format.

Please also consult data notes from other states I have worked on, especially Texas.

Python Pandas cannot handle data inconsistencies caused by inconsistent human input. It is up to the user of the FTE files to gain an understanding of how data is processed and find ways to adapt to the situation such that FTE data is used correctly and effectively.