Homework 1
ECON 470, Spring 2025

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My answers to the homework questions are described below. Note that I do the analysis for these answers in a separate R script. You can read in the full data as part of your markdown file, but that takes some time to compile to pdf. So I run the analysis separately, save the workspace with only the summary stats, figures, and tables that I need, and then load the workspace in the final qmd. My analysis file is available in the analysis folder. The GitHub repository for this work is available here. Enjoy!

Building the Data

Answer the following based on our initial, simplified dataset of enrollments, plan types, and service areas:

1. Provide a table of the count of plans under each plan type in each year.

See Table 1.

Table 1: All plan types in 2015

Plan Type	Count
Local PPO	561,843
HMO/HMOPOS	438,891
Employer/Union Only Direct Contract PDP	25,630
PFFS	11,262
1876 Cost	7,157
Medicare-Medicaid Plan HMO/HMOPOS	3,112
Medicare Prescription Drug Plan	1,244
National PACE	1,044
Regional PPO	101
MSA	90
HCPP - 1833 Cost	9
Pilot	2

2. Remove all special needs plans (SNP), employer group plans (eghp), and all "800-series" plans. Provide an updated table after making these exclusions.

Table 2: Revised plan types in 2015

Plan Type	Count
HMO/HMOPOS	34,055
Local PPO	14,760
1876 Cost	6,329
Medicare-Medicaid Plan HMO/HMOPOS	3,112
PFFS	1,836
National PACE	1,044
Medicare Prescription Drug Plan	1,012
MSA	86
Regional PPO	43

3. Provide a table of the average enrollments for each plan type in 2015.

Table 3: Enrollments by plan type in 2015

Plan Type	Count	Avg Enrollments
HMO/HMOPOS	34,055	880
Local PPO	14,760	320
1876 Cost	6,329	228
Medicare-Medicaid Plan HMO/HMOPOS	3,112	532
PFFS	1,836	130
National PACE	1,044	154
Medicare Prescription Drug Plan	1,012	0
MSA	86	54
Regional PPO	43	0