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| What Olivia did |  |
| **AGEGROUP**  Added AgeGroup structure to the original model | * + child(0-12), teen(12-18), old(18+)   + From 14 stocks to 38 stocks   + From 2 dimension (gender) to 6 dimension (gender\*age)   + Modified remandModel.c, remandModel.h files   + Added “ageout\_child” and “ageout\_teen” flow and modified the integration from 1 section to 3 section (3 forloops). |
| Updated likelihood function to log likelihood function | * + Solved the "newWeight = nan" problem, it was because one of the likelihood = nan. |
| Updated graphs in R | * + Changed the graphs from female, male to female\_child, female\_teen, female\_old, male\_child, male\_teen, male\_old   + Modified RInterfaceRemand file   + Note: Indices are off in the R file: the index in R should be index in remandModel.h+1 |
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| **VARY** | * + arrest rate varies between a minimum (0.015) and a maximum value (0.03) |
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| **Future work** |  |
| Add new empirical data | Column1:year (for double check)  Column2:inPolice teen (detention)  Column3:inPolice old (detention)    Remand and sentenced custody for child = 0 |
| Double check "countTimePoints"<- 133 | I changed countTimePoints from 299 to 133 because:    stopifnot(length(arrayTimesForTimepoints) \* countObservables == length(arrayObservedValuesYByTimepointAndObservable)) |
| Adjust initial value for stocks | Initial detention value |
| How to run PMCMC | **Run PMCMC:**  In terminal: Set the path to be in the folder  cd + path    docker-compose up -d    docker exec -it rstudio bash    cd code/    ulimit -s unlimited    Rscript RInterfaceRemand.R |
| How to fix PMCMC | ls -l    docker ps    docker container rm -f rstudio    docker exec -it rstudio bash  **If modified the C file:**  make clean  make |

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| **PF** |  |
| IZ\_V15 | * + Has measles, chicken pox and influenza with respective empirical values.   + Immunity is fixed   + Added Calibration (Optimization Experiment)   + I ignored the histograms and plots so that calibration can run faster |
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| Rubella V1 | * + Has measles, chicken pox and Rubella with respective empirical values.   + Has calibration and histograms |
| Rubella V2 | * + Has calibration and but no histograms |