General Parameters

Zone Parameters

- Updated following TAZ & highway node references:
  - UsedZones = 3629
  - BoxElderRange = '1-153'
  - WeberRange = '154-581'
  - DavisRange = '582-905'
  - SLRange = '906-2216'
  - UtahRange = '2217-3546'
  - Dummyzones = '3547-3600'
  - Externalzones = '3601-3629'
  - NorthBC = '3604,3605,3606'
  - HwyNodes = '10000-99999'
- Updated colleges/universities node references:
  - Colleges = '437, 521, 693, 959, 979, 1007, 1029, 1051, 1085, 1231, 1263, 1491, 1525, 1580, 1776, 1886, 2031, 2606, 2809, 2848, 2882, 2939, 3336'
  - LDSBC = 1029
  - WESTMIN = 1263
  - UOFU_Main = 1051
  - UOFU_Med = 1007
  - WSU_OGDEN = 437
  - WSU_DAVIS = 693
  - WSU_WEST = 521
  - SLCC_TL = 1580
  - SLCC_SC = 1231
  - SLCC_JD = 1776
  - SLCC_Mead = 1491
  - SLCC_ML = 1886
  - SLCC_LB = 1085
  - SLCC_HL = 1525
  - SLCC_Airp = 979
  - SLCC_West = 959
  - SLCC_HM = 2031

  - BYU = 2939
  - UVU_MAIN = 2848
  - UVU_GENEVA = 2882
  - UVU_THANKP = 2606
  - UVU_VINE = 2809
  - UVU_PAYSON = 3336
  - Lagoon = 781
  - Airport = 965
  - TempleSquare = 1035
  - SLC_Library = 1147

- Removed following variables:
  - RegionRange
  - WFRCRange
  - MAGRange

County Identification

- Removed this entire section containing the following variables:
  - CountyRange
  - CountyName1
  - CountyName2
  - CountyName3
  - CountyName4
  - CountyName5
  - CO_Name1
  - CO_Name2
  - CO_Name3
  - CO_Name4
  - CO_Name5

AQ conformity reports are broken down by each county and 3 cities

- Removed this entire section containing the following variables:
  - RE_ID
  - WE_ID
  - DA_ID
  - SL_ID
  - UT_ID
  - BE_ID
  - OC_ID
  - SC_ID
  - PC_ID

Special Trip Table Script Parameters

- Updated income break points to 2019 ACS data
  - Income_Lo = 45000
  - Income_Md = 75000
  - Income_Hi = 125000

Household Disaggregation Information

- Updated regional median income:
  - Reg_Median_Inc = 74946
  - from 2019 5-year ACS, in 2019 dollars
  - represents average for just WF region

Distribution, Mode Choice & Assignment Parameters

Auto Occupancy

- Renamed the following variables (scripts were also udpated) and updated values:

```
from IPython.display import Markdown
from tabulate import tabulate
table = [["VEH_OCCUPANCY_HBW"     , 'VehOcc_HBW'     , '1.10'],
         ["VEH_OCCUPANCY_HBSHP"   , 'VehOcc_HBShp'   , '1.63'],
         ["VEH_OCCUPANCY_HBOTH"   , 'VehOcc_HBOth'   , '1.68'],
         ["VEH_OCCUPANCY_HBSCH"   , 'VehOcc_HBSch'   , '1.76'],
         ["VEH_OCCUPANCY_HBC"     , 'VehOcc_HBC'     , '1.12'],
         ["VEH_OCCUPANCY_NHBW"    , 'VehOcc_NHBW'    , '1.21'],
         ["VEH_OCCUPANCY_NHBNW"   , 'VehOcc_NHBNW'   , '1.76'],
         ["NA"                    , 'VehOcc_Rec'     , '1.68'],
         ["VEH_OCCUPANCY_HBO"     , 'VehOcc_HBO '    , '1.67'],
         ["VEH_OCCUPANCY_NHB"     , 'VehOcc_NHB '    , '1.54'],
         ["NA"                    , 'VehOcc_ExtWrk'  , '1.16'],
         ["NA"                    , 'VehOcc_ExtHBO'  , '1.82'],
         ["NA"                    , 'VehOcc_ExtNHB'  , '1.73'],
         ["NA"                    , 'VehOcc_ExtRec'  , '1.73'],
         ['VEH_OCC_3P_HBW'        , 'VehOcc_3p_HBW'  , '3.53'],
         ['NA'                    , 'VehOcc_3p_HBShp', '3.49'],
         ['NA'                    , 'VehOcc_3p_HBOth', '3.73'],
         ['NA'                    , 'VehOcc_3p_HBSch', '3.88'],
         ['VEH_OCC_3P_HBC'        , 'VehOcc_3p_HBC'  , '3.24'],
         ['NA'                    , 'VehOcc_3p_NHBW' , '3.71'],
         ['NA'                    , 'VehOcc_3p_NHBNW', '3.71'],
```

```
        ['NA'                    , 'VehOcc_3p_Rec'  , '3.73'],
        ['VEH_OCC_3P_HBO'        , 'VehOcc_3p_HBO'  , '3.68'],
        ['VEH_OCC_3P_NHB'        , 'VehOcc_3p_NHB'  , '3.71']]
Markdown(tabulate(
  table,
  headers=["Previous Name","New Name", "New Value"]
))
```

Previous Name	New Name	New Value
VEH_OCCUPANCY_HBW	VehOcc_HBW	1.1
VEH_OCCUPANCY_HBSHP	VehOcc_HBShp	1.63
VEH_OCCUPANCY_HBOTH	VehOcc_HBOth	1.68
VEH_OCCUPANCY_HBSCH	VehOcc_HBSch	1.76
VEH_OCCUPANCY_HBC	VehOcc_HBC	1.12
VEH_OCCUPANCY_NHBW	VehOcc_NHBW	1.21
VEH_OCCUPANCY_NHBNW	VehOcc_NHBNW	1.76
NA	VehOcc_Rec	1.68
VEH_OCCUPANCY_HBO	VehOcc_HBO	1.67
VEH_OCCUPANCY_NHB	VehOcc_NHB	1.54
NA	VehOcc_ExtWrk	1.16
NA	VehOcc_ExtHBO	1.82
NA	VehOcc_ExtNHB	1.73
NA	VehOcc_ExtRec	1.73
VEH_OCC_3P_HBW	VehOcc_3p_HBW	3.53
NA	VehOcc_3p_HBShp	3.49
NA	VehOcc_3p_HBOth	3.73
NA	VehOcc_3p_HBSch	3.88
VEH_OCC_3P_HBC	VehOcc_3p_HBC	3.24
NA	VehOcc_3p_NHBW	3.71
NA	VehOcc_3p_NHBNW	3.71
NA	VehOcc_3p_Rec	3.73
VEH_OCC_3P_HBO	VehOcc_3p_HBO	3.68
VEH_OCC_3P_NHB	VehOcc_3p_NHB	3.71

- Auto occupancy parameters were updated based on 2012 Household Travel Survey (re-processed)
- Values represent average persons per vehicle for just the Wasatch Front model space
- External trips (Ext) are average for IX + XI, all other parameters are averages for II trips

Value of Time

- Updated value of time (VOT):
  - VOT_Auto_Wrk = 22
  - VOT_Auto_Per = 17
  - VOT_Auto_Ext = 20
  - VOT_LT = 37
  - VOT_MD = 50
  - VOT_HV = 63
  - VOT_Toll = 63
  - VOT_HOT_DA = 63
- Added following variables:
  - VOT_Auto_Wrk_Lo = 9
  - VOT_Auto_Wrk_Hi = 24
  - VOT_Auto_Per_Lo = 7
  - VOT_Auto_Per_Hi = 19

Auto Operating Costs

- Updated auto operating cost (AOC) based on 2019 fuel cost & economy and vehicle maintenance
  - AOC_Auto = 21.7
  - AOC_LT = 27.3
  - AOC_MD = 55.5
  - AOC_HV = 74.3

Toll and HOT Costs

- Updated toll (FT=40) cost (cent/mile) parameter to reflect a toll of approximately $5.00 for a 10.25 mi trip (average work distance) or $3.00 for a 6.5 mi trip (average trip distance of all trips) in 2019 dollars
  - Cost_Toll_Pk = 48
  - Cost_Toll_Ok = 48
- Updated HOT (FT=38) cost (cent/mile) parameter to reflect a toll of approximately $3.50 for a 10.25 mi trip (average work distance) or $2.20 for a 6.5 mi trip (average trip distance of all trips) in 2019 dollars
  - Cost_HOT_Pk = 34
  - Cost_HOT_Ok = 17

Prefix for Transit Skims

- Replaced all transit skim prefix global variable tokens with values in scripts
- Removed transit skim prefix variables from 0GeneralParameters.block file