

```

C IEAT=3
A HPC.K=(MTF.K/DTF.K)-1
A PCE.K=CLIP(1.0,(TABUL(PCET,PCFPC,K,0,3,5)),TIME,K,PCET)
C FCEST=4000
T PCET=.75/.85/.9/.95/.98/.99/1
A PCFPC.K=DLINF3(PCAPC,K,HSID)
A PCAPC.K=FSAPC.K*SOFC.K
A FSAPC.K=TABUL(FSAPCT,FSFC,K,0,10,2)
T FSAPCT=0/.005/.015/.025/.03/.035
NOTE
NOTE EXOGENOUS INPUTS TO THE POPULATION SECTOR
NOTE
NOTE INDUSTRIAL OUTPUT
NOTE
A IO.K=CLIP(IO2.K,IO1.K,TIME,K,LT)
C LT=500
A IO1.K=CLIP(IO11.K,IO11.K,TIME,K,LT2)
C LT2=500
A IO11.K=.7E11*EXP(TIME,K*.037)
A IO12.K=POP.K*CIO
C CIO=100
A IO2.K=.7E11*EXP(LT*.037)
A IOFC.K=IO.K/POP.K
NOTE
NOTE INDEX OF PERSISTENT POLLUTION
NOTE
A FPULS.K=1+RAMP(P8,PT)
C PS=0
C PT=10
NOTE
NOTE SERVICE OUTPUT
NOTE
A SO.K=CLIP(SO2.K,S01.K,TIME,K,LT)
A SO1.K=CLIP(SO12.K,S011.K,TIME,K,LT2)
A SO11.K=1.5E11*EXP(TIME,K*.030)
A SO12.K=POP.K*CSO
C CSO=150
A SO2.K=1.5E11*EXP(LT*.030)
A SOFC.K=SO.K/POP.K
NOTE
NOTE FOOD
NOTE
A F.K=CLIP(F2.K,F1.K,TIME,K,LT)
A F1.K=CLIP(F12.K,F11.K,TIME,K,LT2)
A F11.K=4E11*EXP(TIME,K*.020)
A F12.K=POP.K*CFOOD
C CFOOD=250
A F2.K=4E11*EXP(LT*.020)
A FFC.K=F.K/POP.K
NOTE
NOTE CONTROL CARDS
NOTE
C DT=1
C LENGTH=200
C PLTPER=10
C PTPER=0
A S0PC=5,IOPC=1,PPC=F(0,1000)/POP=F(0,16E9)/
PLOT CBR=B,CDB=D(0,50)/LB=L(0,80)/PPU=U(0,1)/FCE=C(.5,1)
RUN STANDARD
NOTE
NOTE PARAMETER CHANGES FOR THE POPULATION SECTOR RUNS
NOTE
NOTE HISTORICAL RUNS
NOTE
C LENGTH=75
C PLTPER=5
RUN FIGURE 2-84: HISTORICAL BEHAVIOR, SUMMARY VARIABLES
C LENGTH=75
C PLTPER=5
PLOT X LMP=F,LWC=C(0,2)/HSAPC=S,HSFPC=C(0,250)
RUN FIGURE 2-85: HISTORICAL BEHAVIOR, MORTALITY VARIABLES
C LENGTH=75
C PLTPER=5
PLOT X TPT=T,MTF=M,DTF=D,DCFS=C(0,15)/FRSH=R(.6,1.4)/
RUN FIGURE 2-86: HISTORICAL BEHAVIOR, FERTILITY VARIABLES
NOTE

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NOTE CONSTANT INCOME PER CAPITA RUNS
NOTE
C IPHST=4000
C LT=0
PLOT S0PC=5,IOPC=1,PPC=F(0,1000)/POP=F(0,16E9)/
X CBR=B,CDB=D(0,50)/LB=L(0,80)/PPU=U(0,1)/FCE=C(.5,1)
RUN FIGURE 2-87: CONSTANT LOW INCOME
C IPHST=4000
C LT=0
C CIO=1000
C CSO=1300
C CPOOD=2500
RUN FIGURE 2-88: CONSTANT HIGH INCOME
C LT=0
RUN FIGURE 2-89: CONSTANT LOW INCOME, IMPROVED HEALTH CARE
NOTE
NOTE EXPONENTIAL ECONOMIC GROWTH RUNS
NOTE
FIGURE 2-90: EXPONENTIAL ECONOMIC GROWTH, SUMMARY VARIABLES
PLOT PC=1,PP=2,PM=3,PE=4(0,1)/LMP=F,LMBIS=M,
X LMP=F,LWC=C(0,2)/HSAPC=S,HSFPC=C(0,250)
FIGURE 2-91: EXPONENTIAL ECONOMIC GROWTH, MORTALITY VARIABLES
PLOT TPT=T,MTF=M,DTF=D,DCFS=C(0,15)/FRSH=R(.6,1.4)/
X SPSH=S(.75,1.25)/CMPLD=L(1,4)
RUN FIGURE 2-92: EXPONENTIAL ECONOMIC GROWTH, FERTILITY VARIABLES
NOTE
** THE FOLLOWING CHANGE MUST BE MADE IN EDIT MODE:
NOTE ** A EXTRA.K=P6.K*.1+P7.K*.25+P8.K*.3+P9.K*.25+P10.K*.1
PLOT S0PC=5,IOPC=1,PPC=F(0,1000)/POP=F(0,16E9)/
X CBR=B,CDB=D(0,50)/LB=L(0,80)/PPU=U(0,1)/FCE=C(.5,1)
PLOT PC=1,PP=2,PM=3,PE=4(0,1)/LMP=F,LMBIS=M,
X LMP=F,LWC=C(0,2)/HSAPC=S,HSFPC=C(0,250)
PLOT TPT=T,MTF=M,DTF=D,DCFS=C(0,15)/FRSH=R(.6,1.4)/
X SPSH=S(.75,1.25)/CMPLD=L(1,4)
RUN FIGURE 2-94: EXPONENTIAL GROWTH, HIGHER CHILDBEARING AGE
C FCEST=75
PLOT S0PC=5,IOPC=1,PPC=F(0,1000)/POP=F(0,16E9)/
X CBR=B,CDB=D(0,50)/LB=L(0,80)/PPU=U(0,1)/FCE=C(.5,1)
RUN FIGURE 2-96: EXPONENTIAL GROWTH, PERFECT FERTILITY CONTROL
C FCEST=75
C SPOT=75
RUN FIGURE 2-97: EXPONENTIAL GROWTH, FERTILITY CONTROL, REDUCED DCFS
NOTE
NOTE RUNS SIMULATING CONSTANT TOTAL OUTPUT
NOTE
C LT=100
RUN FIGURE 2-98: CONSTANT TOTAL OUTPUT
C LT=100
C FCEST=75
RUN FIGURE 2-99: CONSTANT TOTAL OUTPUT, PERFECT FERTILITY CONTROL
C LT=100
C FCEST=75
C SPOT=75
RUN FIGURE 2-100: CONSTANT OUTPUT, FERTILITY CONTROL, REDUCED DCFS

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APPENDIX D: NATIONAL POPULATION STATISTICS