Príloha č. 1

Kód v programe GAMS

```
set i strategie spolocnosti /1*4/
alias (i,j);
positive variables P(i) pravdepodobnost povysenia /1.lo 0.01, 1.up 0.99,
2.lo 0.01, 2.up 0.99, 3.lo 0.01, 3.up 0.99, 4.lo 0.01, 4.up 0.99/,
                   O(j) pravdepodobnost odchodu /1.lo 0.01, 1.up 0.99,
2.lo 0.01, 2.up 0.99, 3.lo 0.01, 3.up 0.99, 4.lo 0.01, 4.up 0.99/;
parameter e(i) zamestnanci na danej urovni /1 187, 2 122, 3 60, 4 28/;
parameter t(i) zelane urovne zamestnancov /1 190, 2 130, 3 60, 4 30/;
parameter r pocet obdobi sledovania /5/;
set rok pomocny index dynamizacie /1*5/;
variable KH hodnota ucelovej funkcie;
variables PO(i) pomocna suctova premenna /1.lo 0.01, 2.lo 0.01, 3.lo
0.01, 4.lo 0.01/,
          EPO(i,rok) pomocna dynamicka premenna; positive variable H novo
prijati zamestnanci;
variables u(i) hodnota hry pre korporaciu,
          v(i) hodnota hry pre zam uroven, d(i) tolerancia;
Parameter C pocet nepovysitelnych manazerov /7/;
Parameter Oc pravdepodobnost odchodu najvyssieho manazmentu /0.1067/;
Parameter Oh pravdepodobnost odchodu v prvom roku /0.2/;
equations u_f
          pocalc(i)
          derivp(i)
          derivo(i)
          pyramid(i)
          hires
          epoc(i,rok)
          dyn(i)
          cdyn
          tol(i);
pocalc(i).. po(i)=e=p(i)+o(i);
u_f.. KH=e=-(prod(i,PO(i))*Oc)/(prod(i, P(i))*(1-Oh))-sum(i,(p(i)/o(i)))-
sum(i,u(i)+v(i));
derivp(i).. 0=g=(prod(j,PO(j))*Oc)/(prod(j, P(j))*(1-
Oh))*(o(i)/(P(i)*(P(i)+O(i))))-1/o(i)-u(i);
derivo(i).. 0=g=-(prod(j,PO(j))*Oc)/(prod(j, P(j))*(1-
Oh))*(1/(P(i)+O(i)))+p(i)/(o(i)*o(i))-v(i);
pyramid(i).. e(i)=g=e(i+1)+C$(ord(i)=4)+1;
hires.. H=e=(prod(i,PO(i))*Oc)/((prod(i, P(i))*(1-Oh)))*C;
epoc(i,rok).. EPO(i,rok)=e=(1-p(i)-o(i))**(ord(rok)-1);
dyn(i).. t(i)=e=(sum(rok,epo(i,rok))*(1-oh)*h)$(ord(i)=1)+sum(rok,epo(i-
1,rok))*p(i-1)*(t(i-1)+e(i-1))/2+power(1-p(i)-o(i),r)*e(i);
cdyn.. c=e=sum(rok,epo('4',rok))*p('4')*(t('4')+e('4'))/2+((1-Oc)**r)*C;
tol(i).. d(i)=l=5;
model suhrn /all/;
suhrn.nodLim = 100000;
solve suhrn using nlp maximizing KH;
display P.l,O.l,H.l,KH.l,u.l,v.l,d.l;
```