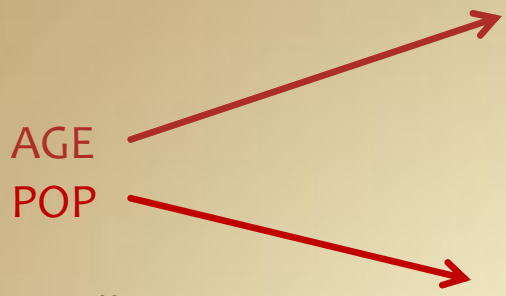
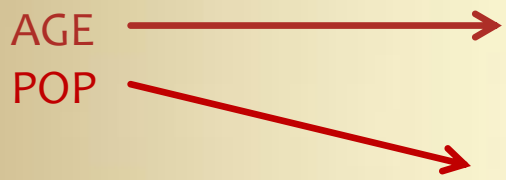


Die off, die out

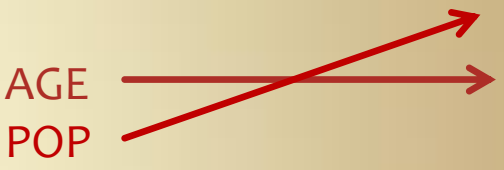
Little recruitment; pig in the python

Older recruitment;
Counterweighted youth drop



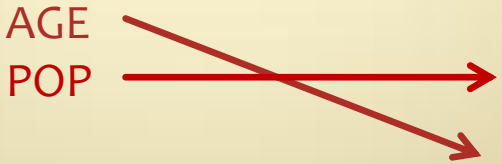
Disinterest in all age brackets;
Bimodal pattern

Stable State



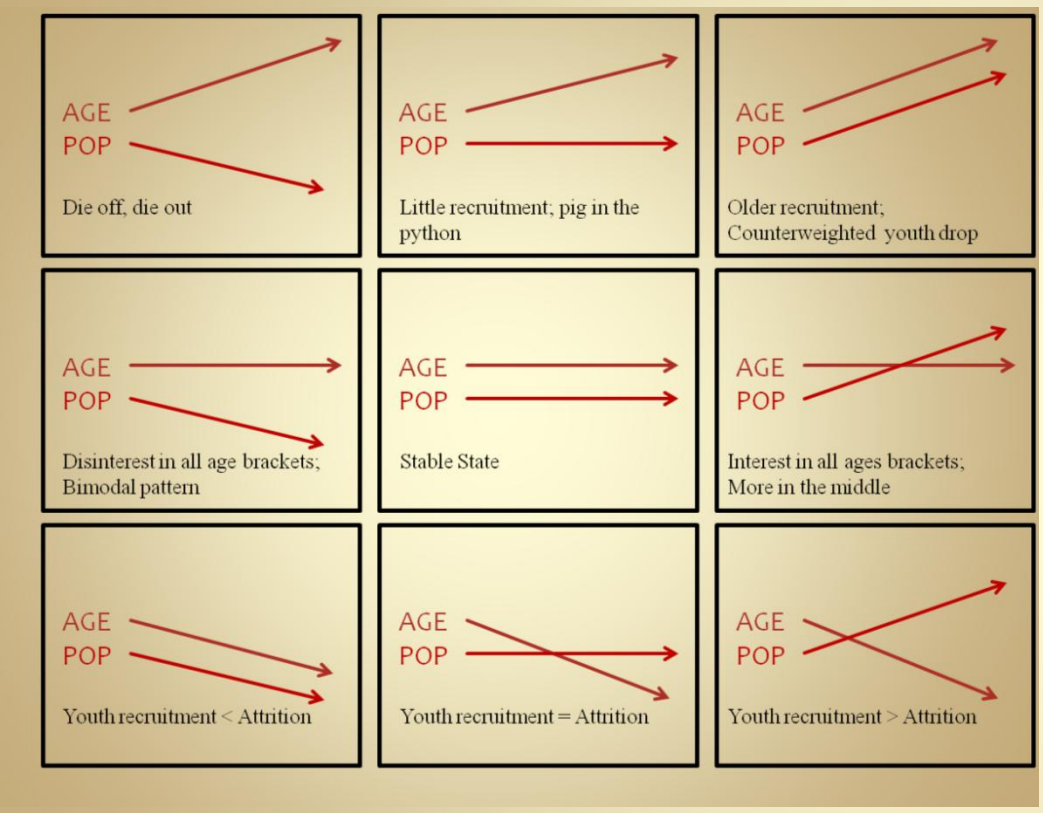
Interest in all ages brackets;
More in the middle

Youth recruitment < Attrition



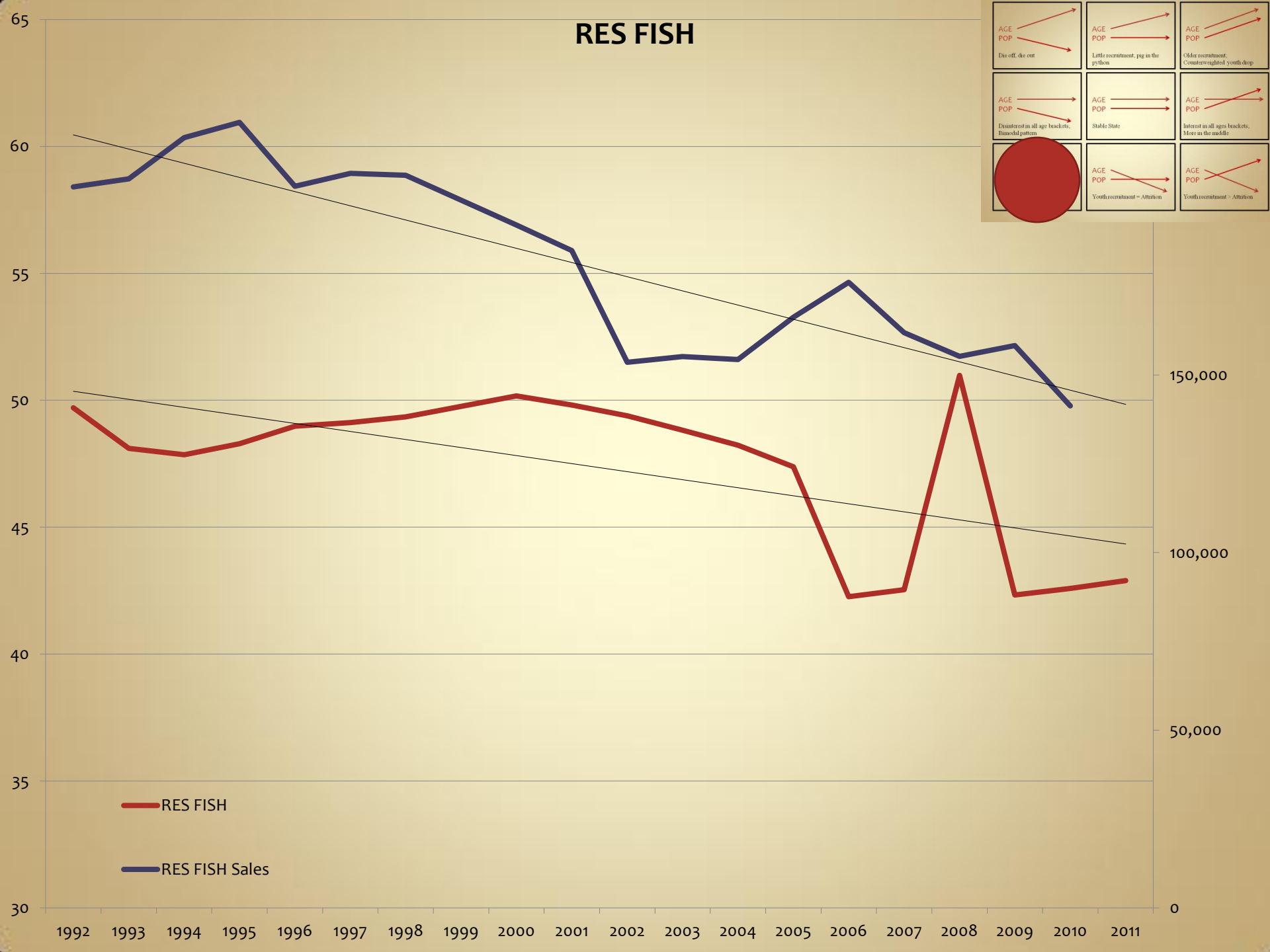
Youth recruitment = Attrition

Youth recruitment > Attrition



- Which one is ideal?
- Would you approach each in the same way?

RES FISH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1998
1999
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2004
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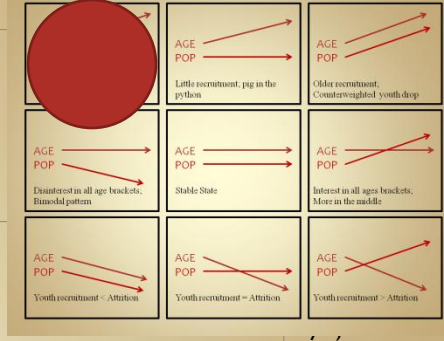
2010
2011
RES FISH
RES FISH Sales
AGE
POP
Die off, die out
Little recruitment, pig in the python
Older recruitment, Counterweighted youth drop
Disinterest in all age brackets, Bimodal pattern
Stable State
Interest in all ages brackets, More in the middle
Youth recruitment = Attrition
Youth recruitment > Attrition

RES HUNT



y = 0.406x + 35.121

RES HUNT

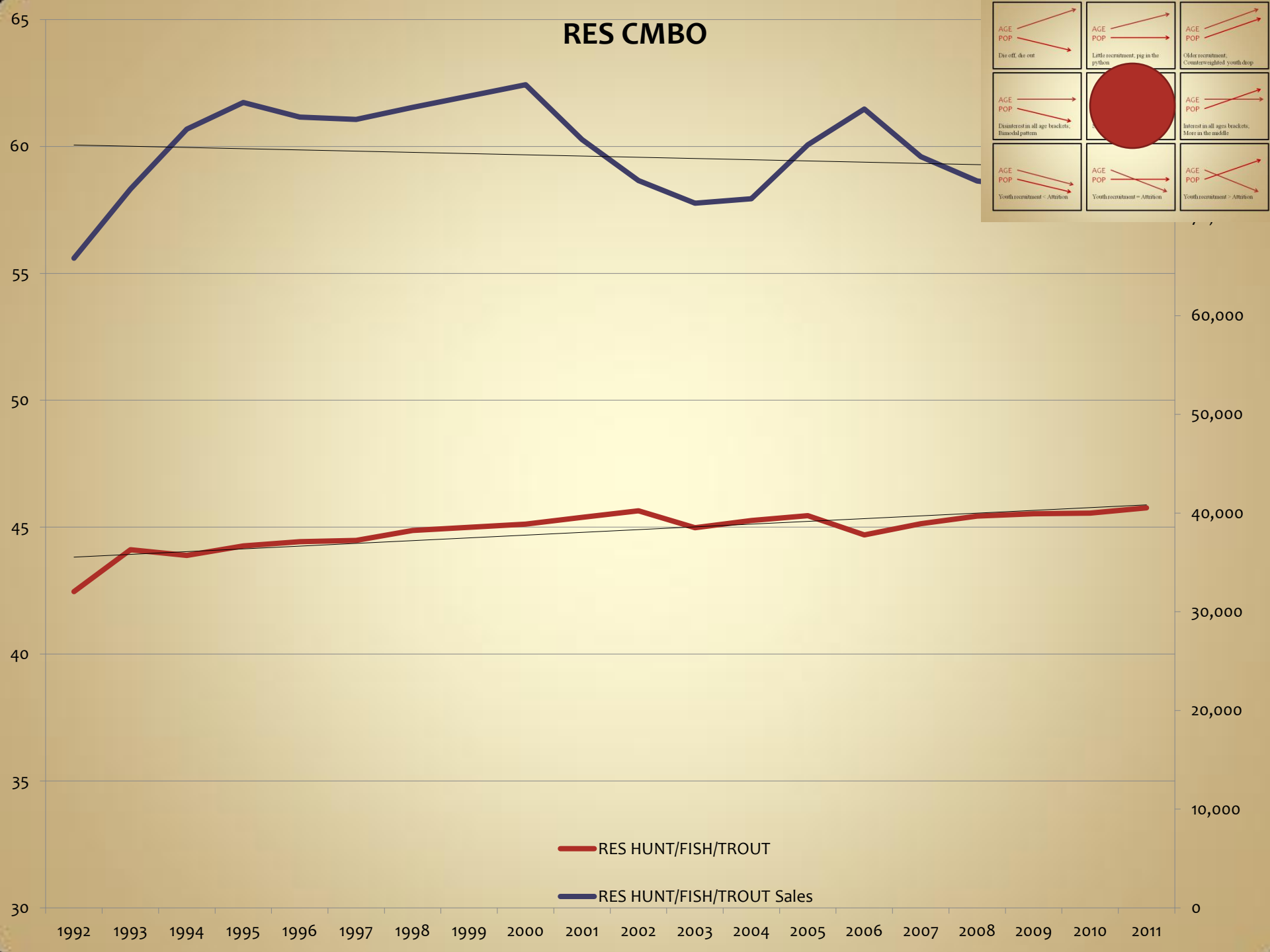
RES HUNT Sales

65 60 55 50 45 40 35 30

60,000 50,000 40,000 30,000 20,000 10,000 0

1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

RES CMBO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RES HUNT/FISH/TROUT
RES HUNT/FISH/TROUT Sales
AGE
POP
Die off, die out
Little recruitment, pig in the python
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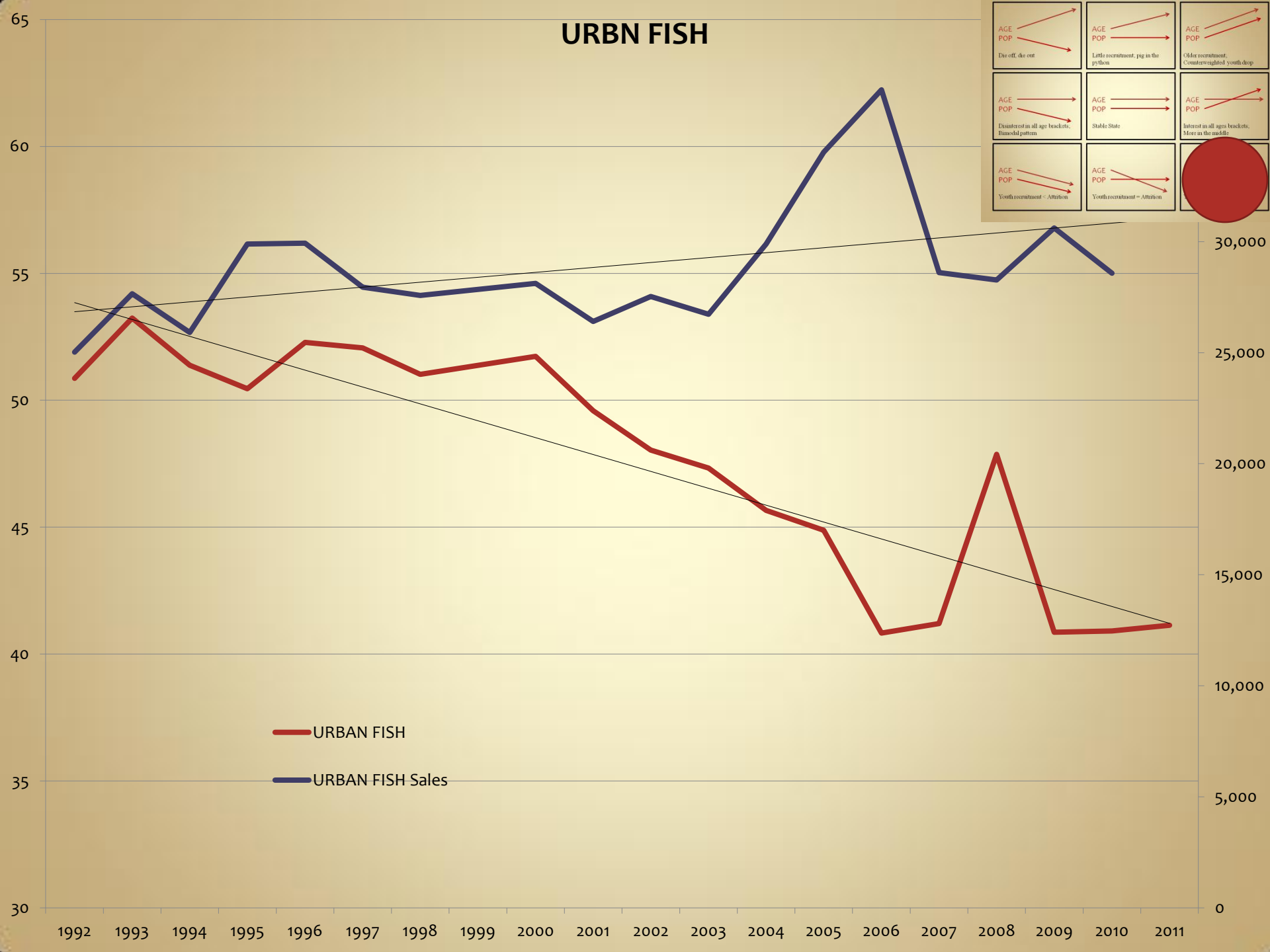
Disinterest in all age brackets, Bimodal pattern
Interest in all ages brackets, More in the middle
Youth recruitment < Attrition
Youth recruitment = Attrition
Youth recruitment > Attrition

URBN FISH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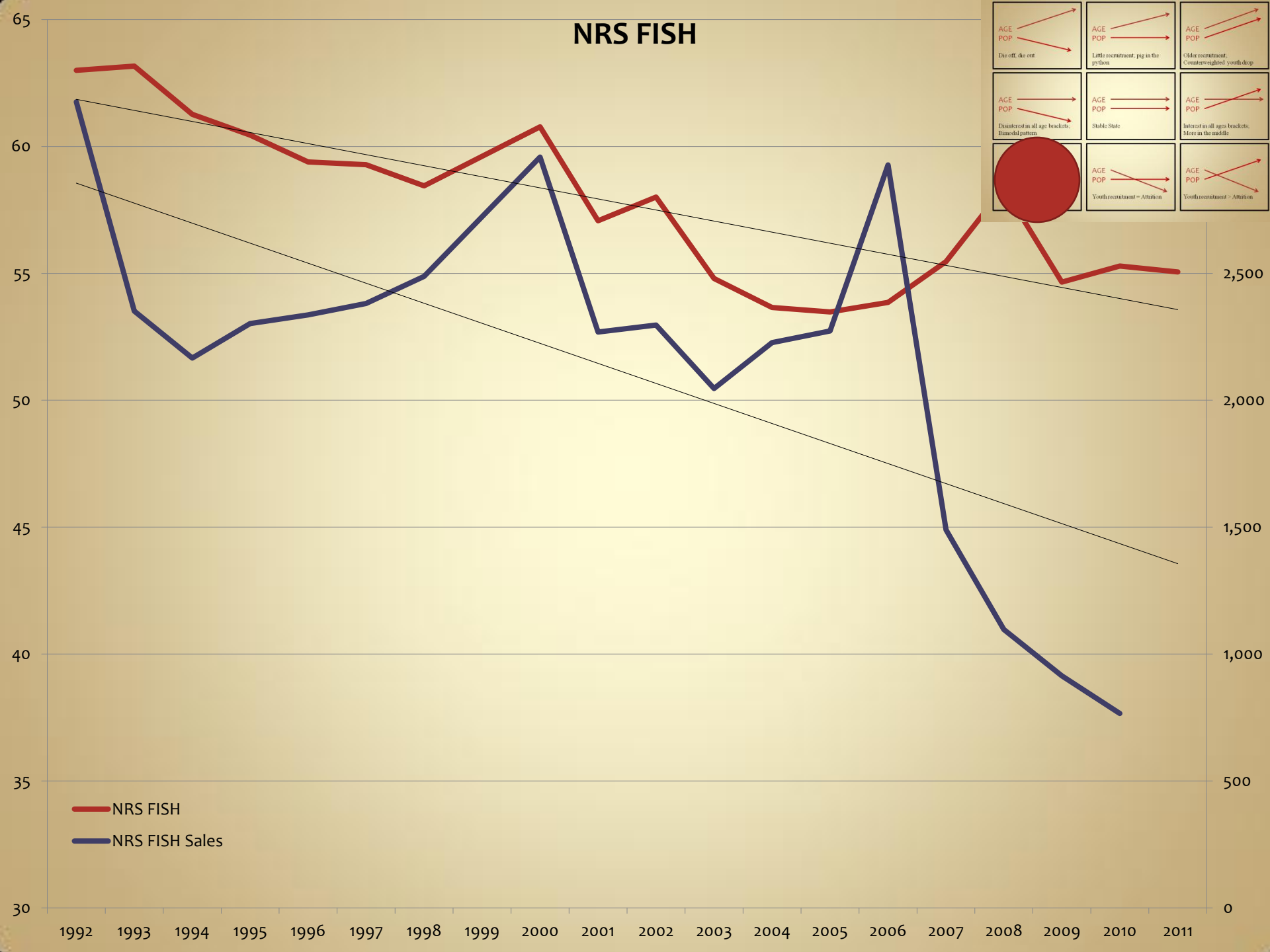
URBAN FISH
URBAN FISH Sales
AGE
POP
Die off, die out
Little recruitment, pig in the python
Older recruitment, Counterweighted youth drop
Disinterest in all age brackets, Bimodal pattern
Stable State
Interest in all ages brackets, More in the middle
Youth recruitment < Attrition
Youth recruitment = Attrition

NRS FISH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NRS FISH
NRS FISH Sales
AGE
POP
Die off, die out
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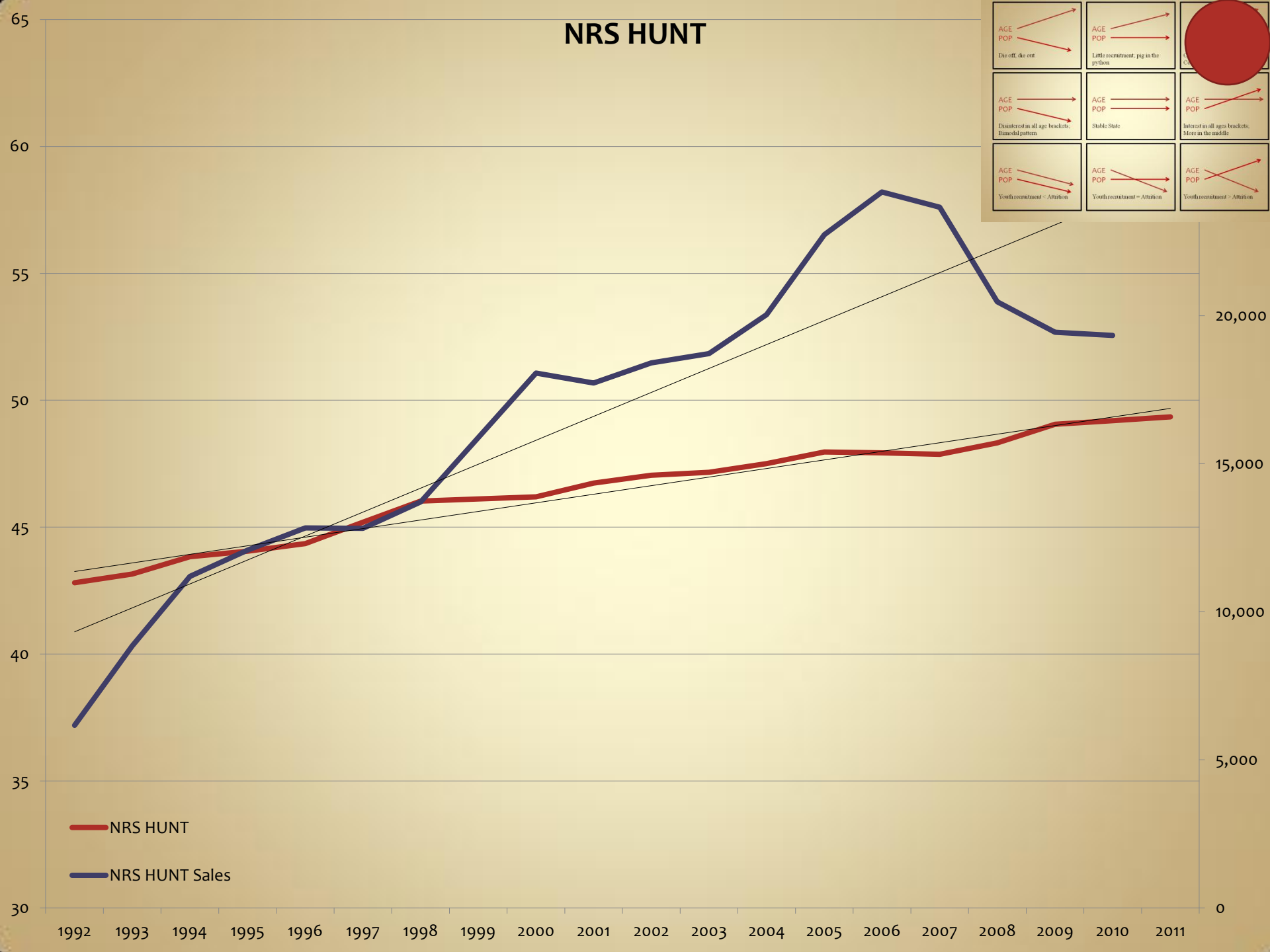
NRS HUNT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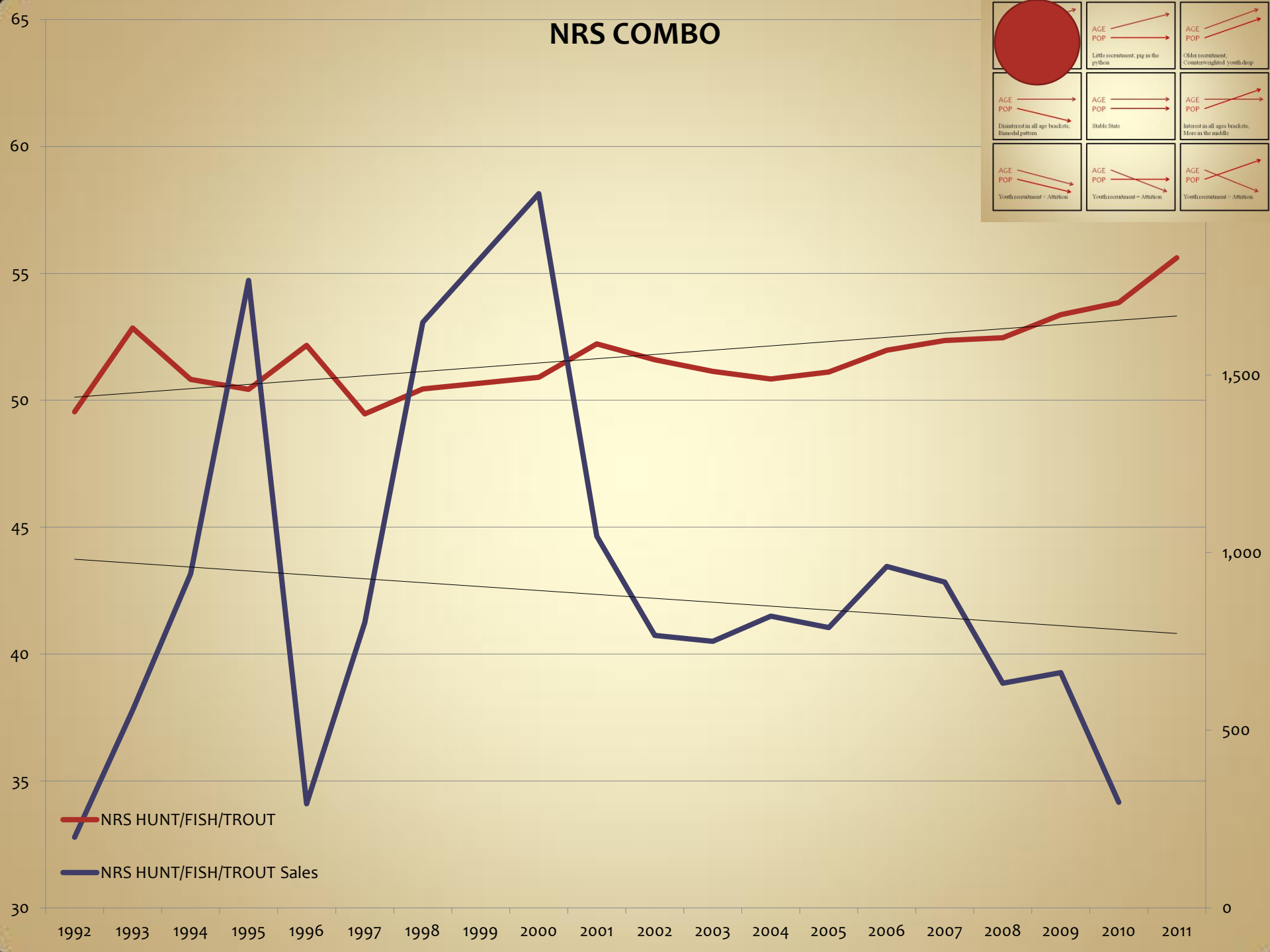
NRS HUNT
NRS HUNT Sales
AGE
POP
Die off, die out
Little recruitment, pig in the python
Disinterest in all age brackets, Bimodal pattern
Stable State
Interest in all ages brackets, More in the middle
Youth recruitment < Attrition
Youth recruitment = Attrition
Youth recruitment > Attrition

NRS COMBO

AGE
POP
Little recruitment, pig in the python
AGE
POP
Older recruitment, Counterweighted youth drop
AGE
POP
Disinterest in all age brackets, Bimodal pattern
AGE
POP
Stable State
AGE
POP
Interest in all ages brackets, More in the middle
AGE
POP
Youth recruitment < Attrition
AGE
POP
Youth recruitment = Attrition
AGE
POP
Youth recruitment > Attrition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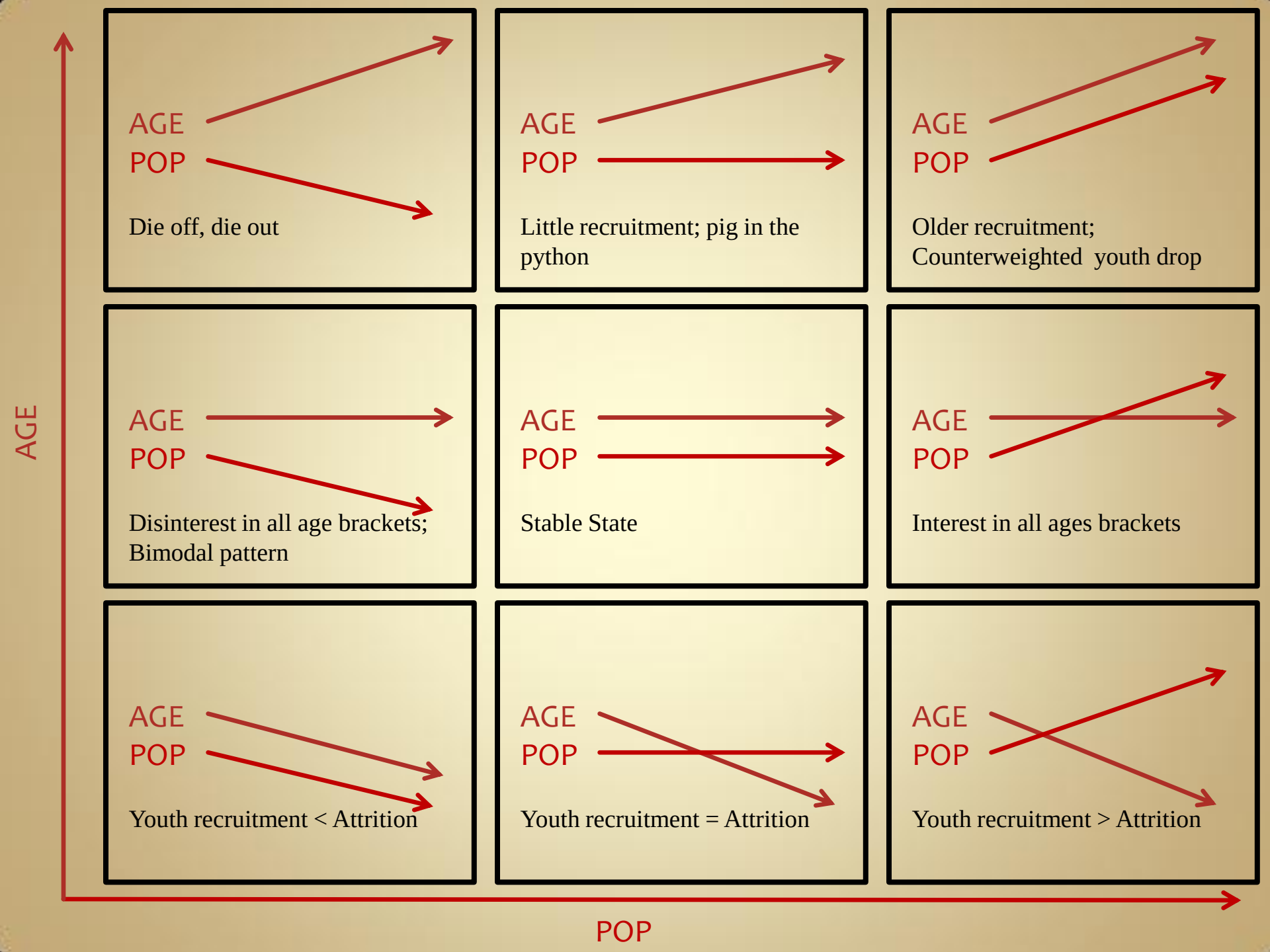
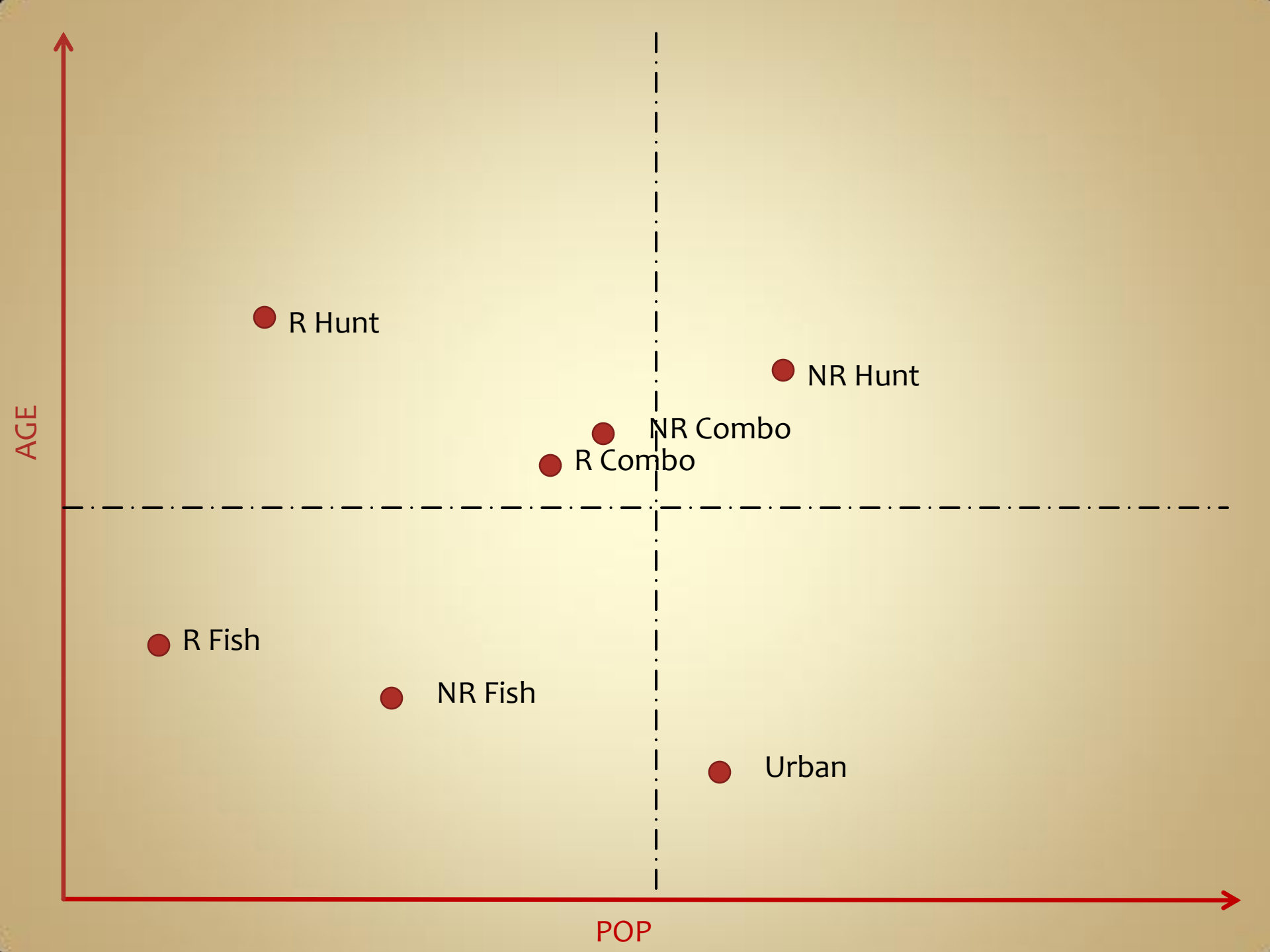
NRS HUNT/FISH/TROUT
NRS HUNT/FISH/TROUT Sales


AGE
POP
Die off, die out
AGE
POP
Little recruitment; pig in the python
AGE
POP
Older recruitment; Counterweighted youth drop
AGE
POP
Disinterest in all age brackets; Bimodal pattern
AGE
POP
Stable State
AGE
POP
Interest in all ages brackets
AGE
POP
Youth recruitment < Attrition
AGE
POP
Youth recruitment = Attrition
AGE
POP
Youth recruitment > Attrition
AGE
POP


R Hunt
NR Hunt
NR Combo
R Combo
R Fish
NR Fish
Urban
AGE
POP

Take Home

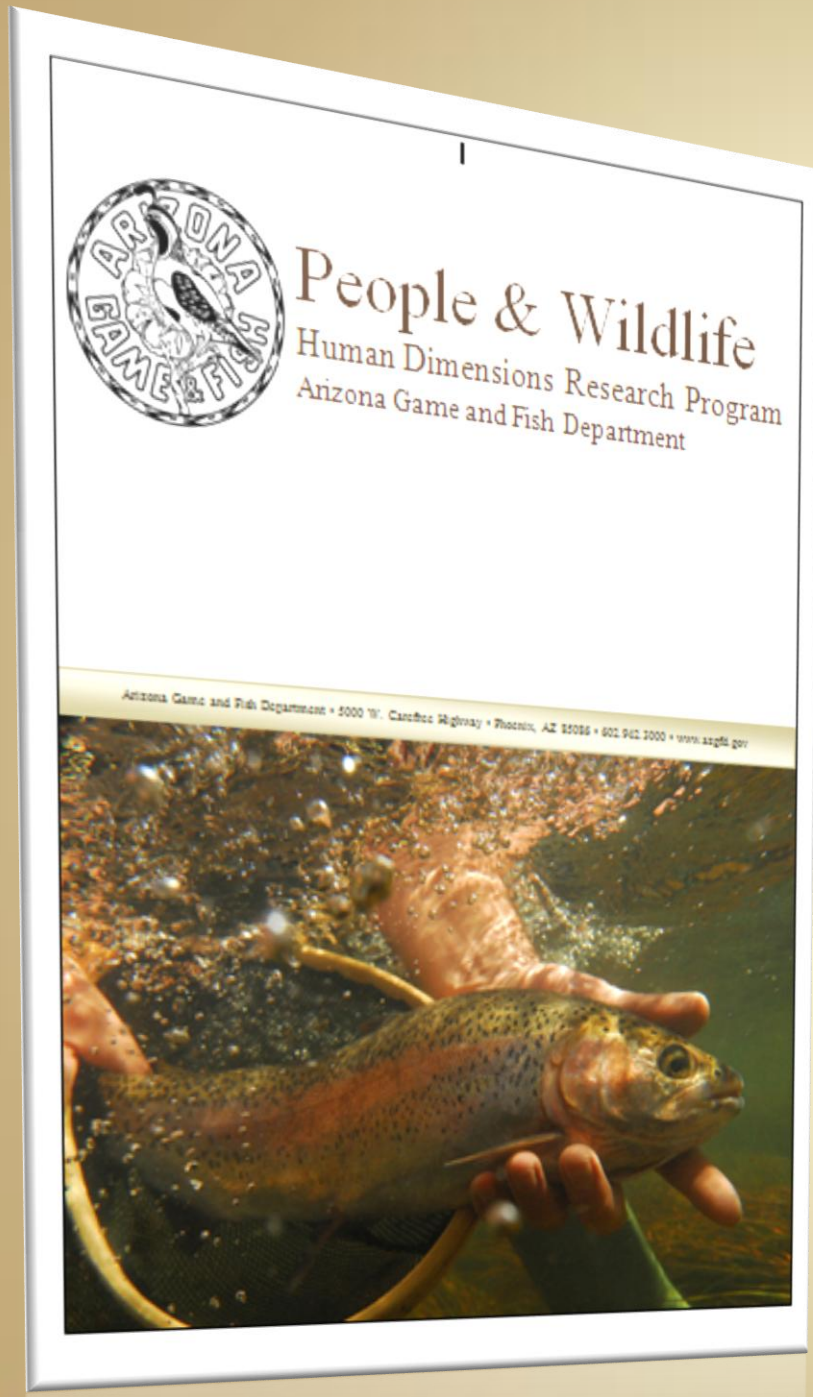
- Broad societal shifts are underway
- Without more hunters and anglers, User-pay model becomes difficult
- It is imperative we maintain Hunters and Anglers to continue wildlife conservation as we know it.

Management Recommendation

- Consistent definition of "recruitment"
- Differentiate our approaches for various activities
- Acknowledge limitations inherent in the system
  - Limited Big Game opportunity
  - Draws are a barrier

Arizona's Approach

- Long-term data
- Regression model
  - Macro (economy, price of gas, precipitation)
  - Micro (participant's attitude, parent's behavior)
  - Circumstantial (attributes of the event, sequence of participation)



Questions / Comments?

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@injoythesilence
HDofWildlife
623.236.7518