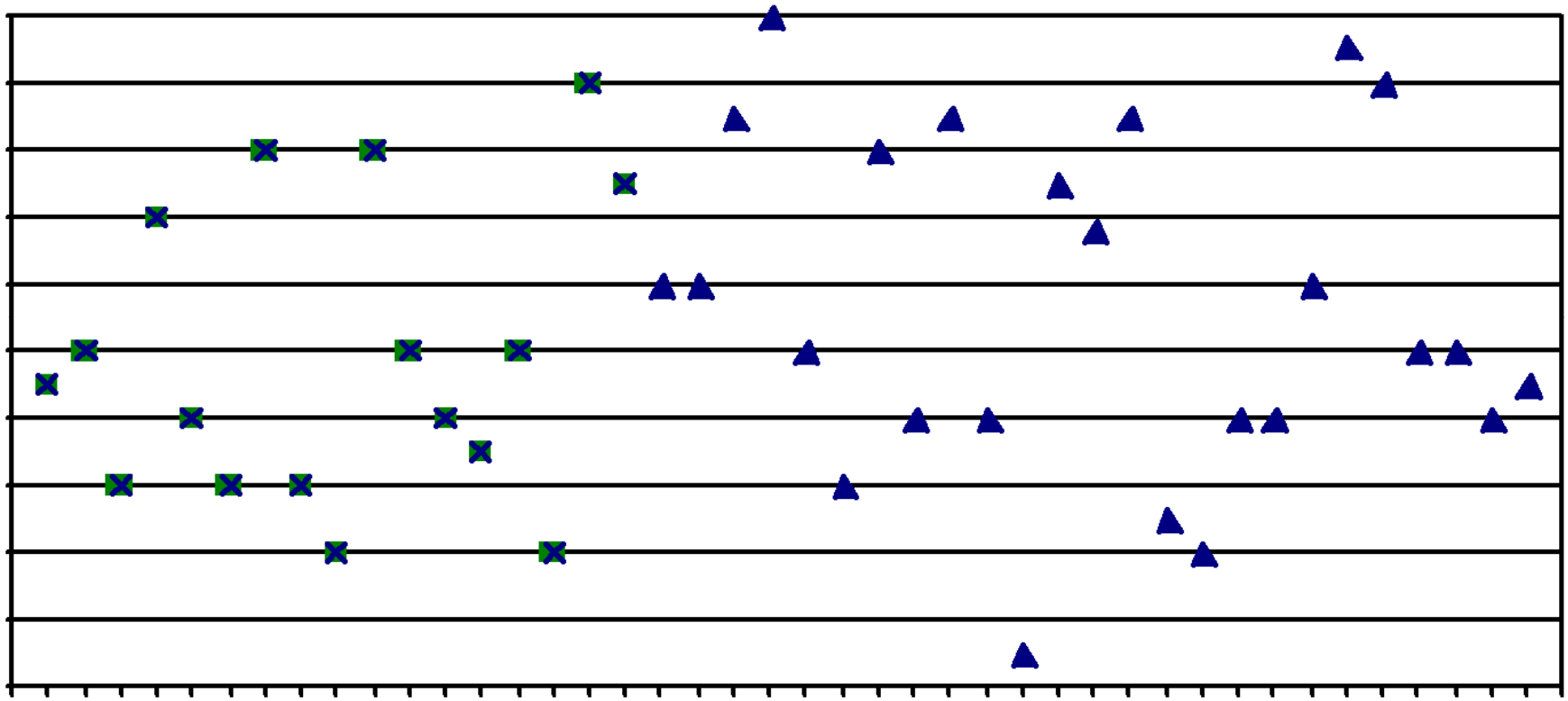
Isle of Man
Risk Assessment
Why it doesn’t do Better

Risk assessment: the search for similarity among offenders from which to draw inferences

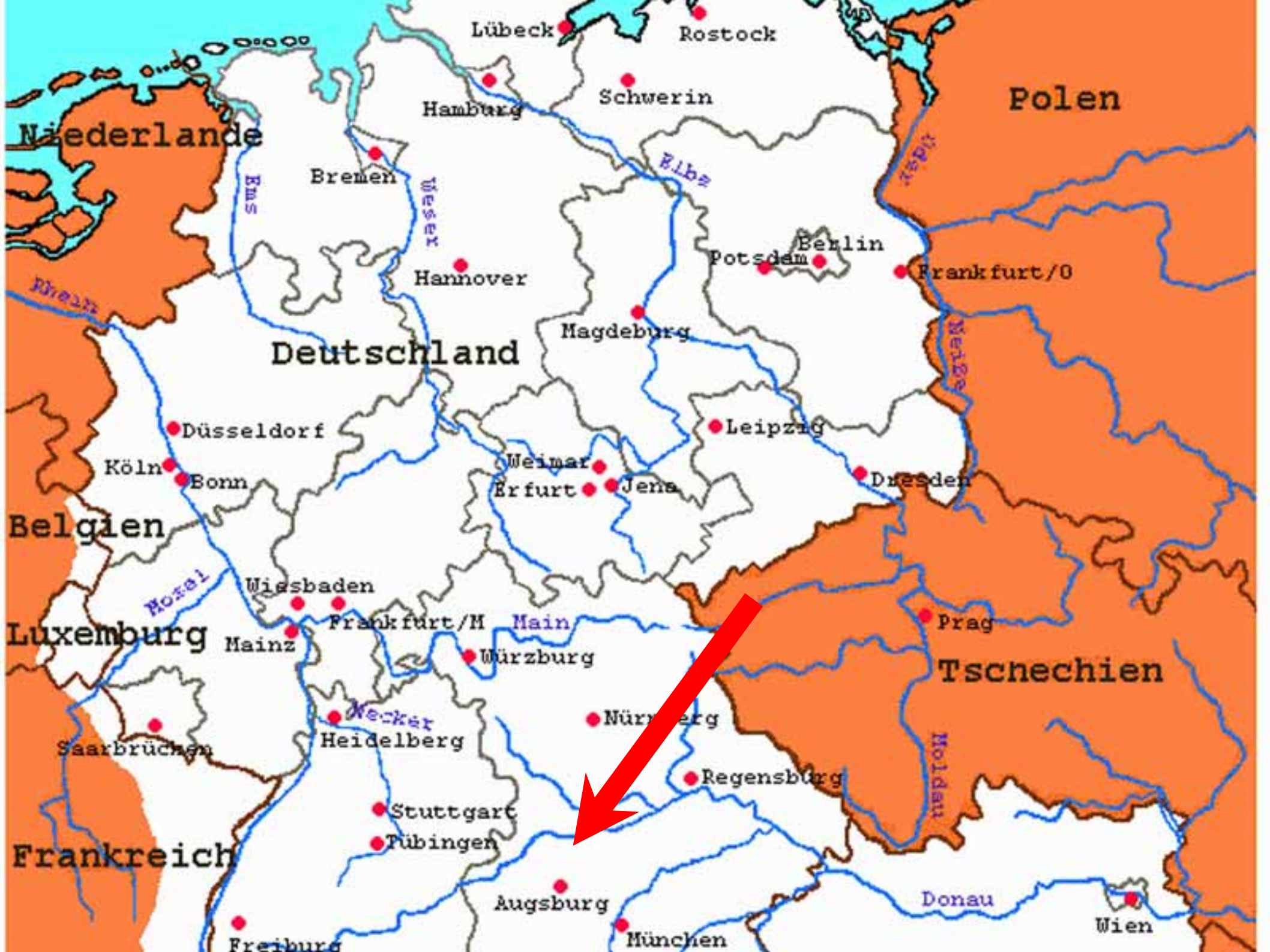
Data + Context can lead to information



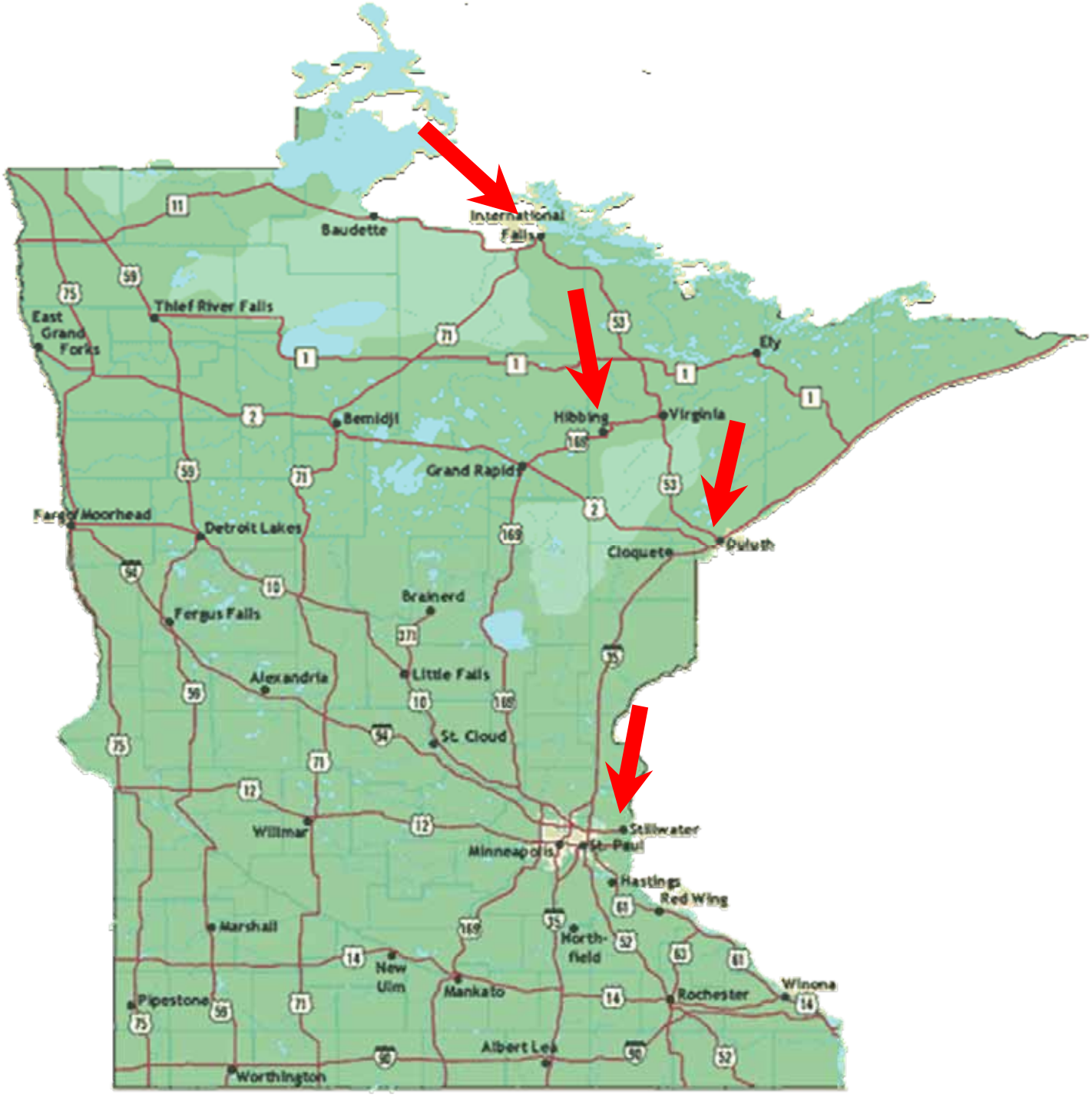
“While in prison (for Burglary) he completed all assigned treatment, had no conduct reports and was released from minimum security. He got out of prison, had a full-time job, was attending college, reported regularly, no dirty UAs, attended treatment and had no supervision violations.”

“Then he ran over 33 people with his car on an impulse and out of anger, killing one, but injuring several very seriously. He got away, robbed a couple of banks, and ended getting apprehended in CA. He’s back in prison for 100+ years.”

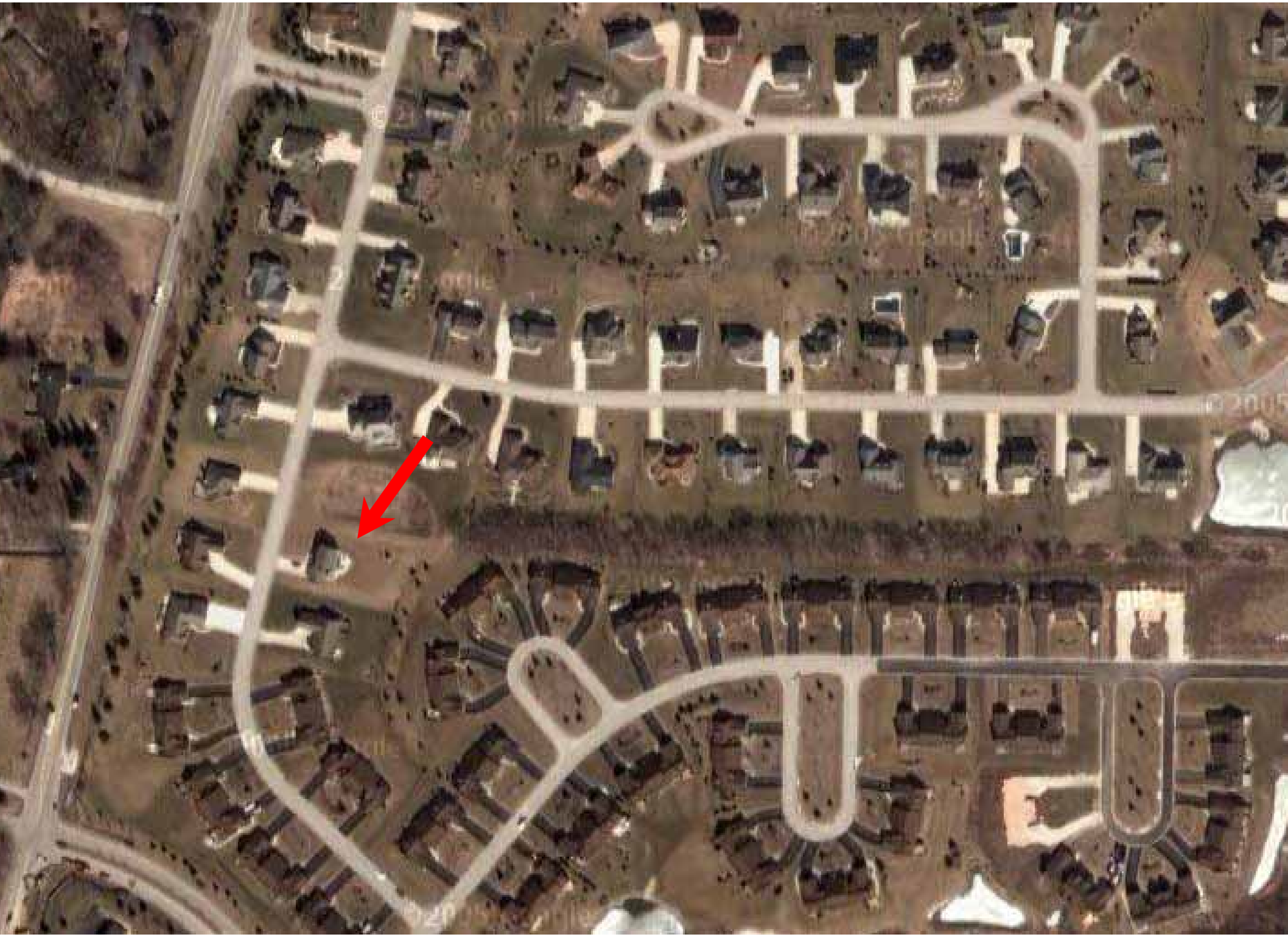
RMS Risk Model Value of 1.86


Lübeck
Rostock
Schwerin
Hamburg
Polen
Niederlande
Bremen
Ems
Weser
Elbe
Oder
Potsdam
Berlin
Frankfurt/O
Hannover
Rhein
Magdeburg
Deutschland
Neiße
Düsseldorf
Leipzig
Köln
Bonn
Weimar
Erfurt
Jena
Dresden
Belgien
Mosel
Wiesbaden
Frankfurt/M
Main
Prag
Luxemburg
Mainz
Würzburg
Tschechien
Neckar
Nürnberg
Saarbrücken
Heidelberg
Moldau
Regensburg
Stuttgart
Tübingen
Frankreich
Augsburg
Donau
Wien
Freiburg
München

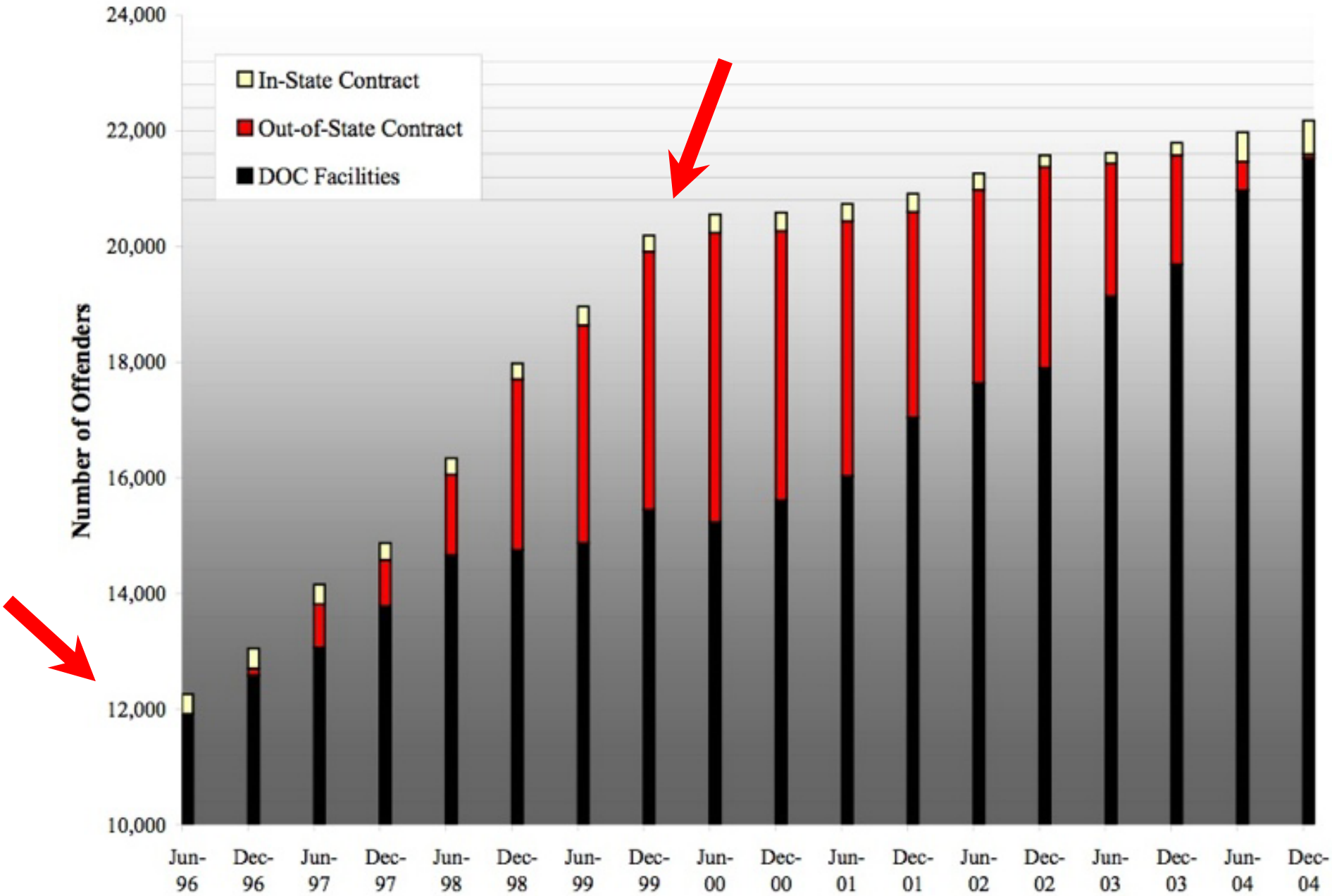
Map
Greenland
Iceland
Finland
Sweden
Norway
United Kingdom
Poland
Germany
Ukraine
France
Italy
Spain
Turkey
Kazakh
Canada
United States
North Pacific Ocean
North Atlantic Ocean
Iraq
Iran
Afghan
Pakis
Algeria
Libya
Egypt
Saudi Arabia
Mexico
Cuba
Mauritania
Mali
Niger
Chad
Sudan
Nigeria
Ethiopia
Venezuela
Colombia
DR Congo
Kenya
Tanzania
Brazil
Peru
Bolivia
Angola
Namibia
Botswana
Madagascar
Chile
South Pacific Ocean
South Atlantic Ocean
South Africa
Argentina
New Zealand


International Falls
Baudette
Thief River Falls
East Grand Forks
Bemidji
Hibbing
Virginia
Ely
Grand Rapids
Fargo/Moorhead
Detroit Lakes
Duluth
Cloquet
Brainerd
Fergus Falls
Alexandria
Little Falls
St. Cloud
Willmar
Stillwater
Minneapolis
St. Paul
Hastings
Red Wing
Marshall
Northfield
New Ulm
Mankato
Rochester
Winona
Pipestone
Albert Lea
Worthington

©1997 MAGELLAN Geographix℠
(805) 685-3100 www.maps.com
0 40 mi
N
WISCONSIN
MICHIGAN
MINNESOTA
IOWA
ILLINOIS
Lake Superior
Lake Michigan
Lake Winnebago
Petenwell Lake
Mille Lacs Lake
St Croix River
Virginia
Hibbing
Grand Rapids
Two Harbors
Duluth
Cloquet
Superior
Aitkin
Ashland
Hurley
Ironwood
Ontonagon
Hancock
Houghton
L'Anse
Marquette
Munising
Crystal Falls
Manistique
Iron Mountain
Eagle River
Kingsford
Pembine
Escanaba
Rowley's Bay
Marinette
Sturgeon Bay
Green Bay
Two Rivers
Manitowoc
Ludington
Sheboygan
Appleton
Oshkosh
Fond du Lac
Plover
Stevens Point
Wisconsin Rapids
Wausau
Antigo
Rhinelander
Spooner
Pine City
Cambridge
Anoka
St. Croix Falls
Rice Lake
New Richmond
Minneapolis
St. Paul
Bloomington
Menomonie
Chippewa Falls
Eau Claire
Red Wing
Faribault
Rochester
Winona
La Crosse
Albert Lea
Preston
Wisconsin Dells
Portage
Madison
Waukesha
Milwaukee
Racine
Kenosha
Janesville
Beloit
Platteville
Prairie du Chien
Mason City
Decorah
Cedar Falls
Waterloo
Dubuque
Freeport
Rockford
Evanston
Chicago
Elgin
De Kalb
Cedar Rapids
Marshalltown
Muskegon
Holland
Benton Harbor
Railroad



WISCONSIN ADULT INCARCERATED POPULATION



Perception

How the brain works...patterns

Read

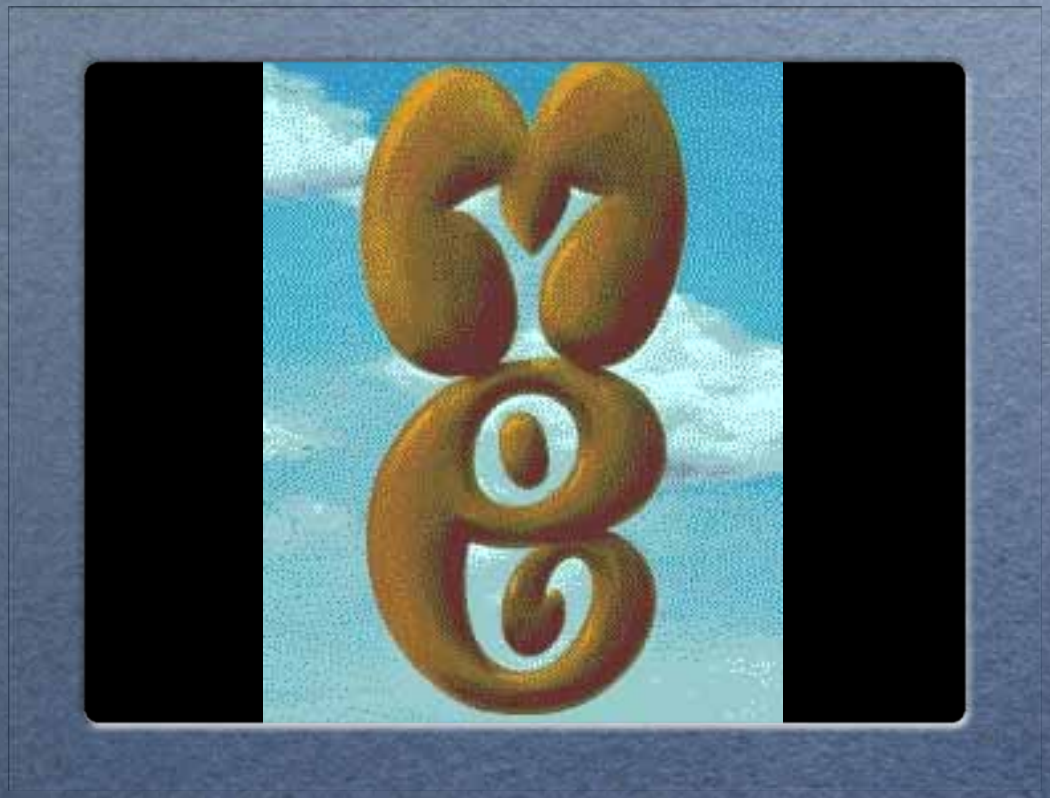
What do you see

old woman

young woman

Read

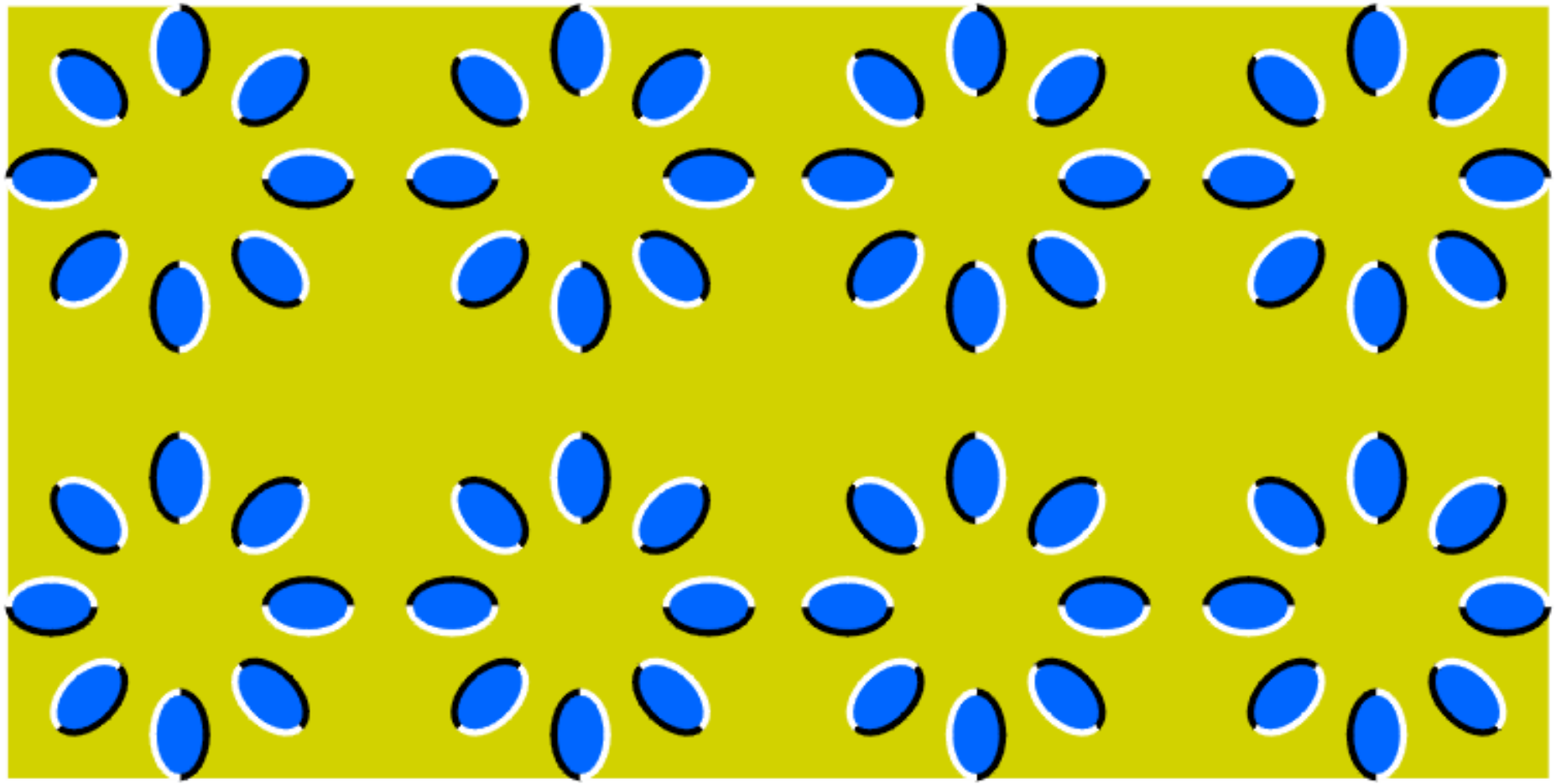
Read



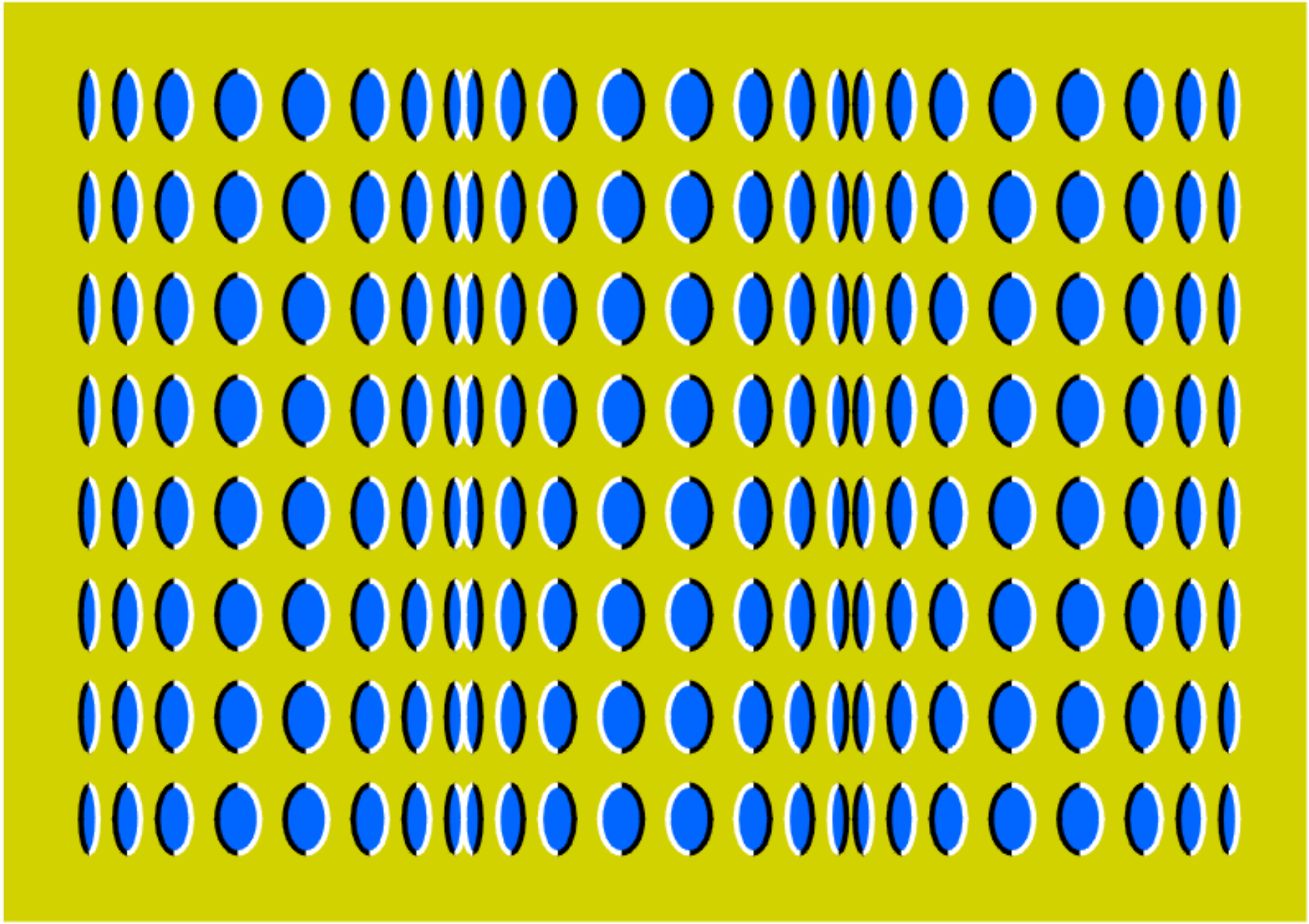
Read

FINISHED FILES ARE THE RE
SULT OF YEARS OF SCIENTI-
FIC STUDY COMBINED WITH
THE EXPERIENCE OF YEARS...

Read and Count

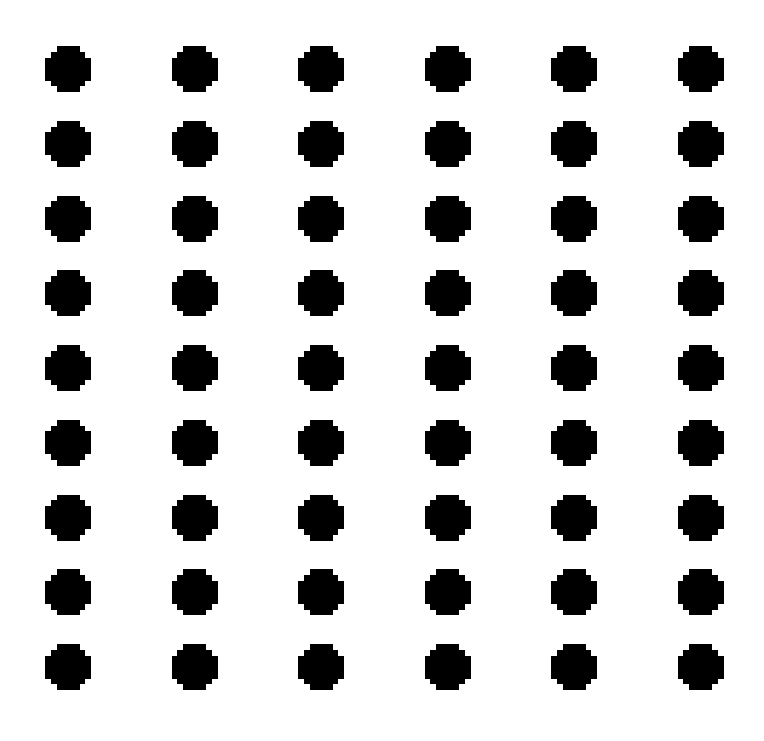


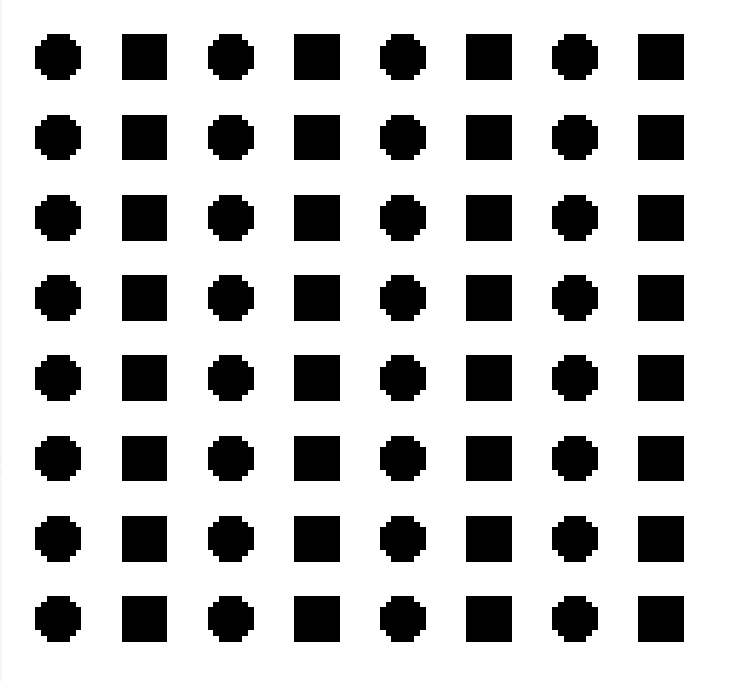
گلزار



Audio

Patterns





Historical Tools

COMPAS
LSI
RPI
Case Management Classification
Wisconsin Risk
Wisconsin Needs

General understanding of risk

risk factors are added up = score

12

16

31

5

22

17

42

8

Presumption

High

Low

Medium Risk

we hope

as scores increase

so does risk

Correctional outcomes are often Dichotomous

dichotomous outcome

two possible groups

recidivist - nonrecidivist

violent - not violent

Seg - not seg

Escape - not escape

will they

or

won’t they

do it again?

Classical Scoring Approach

- Risk variable 1…..+1
- Risk variable 2…..+1
- Risk variable 3…..+1
- Risk variable 4….. -1
- Total 2
- What does the score mean?

Classical Scoring Approach

- Risk variable 1……-1
- Risk variable 2…..+1
- Risk variable 3…..+1
- Risk variable 4…..+1
- Total 2
- Same score ... different way of getting it.
- What does it mean?

Typically tools

LSI•R: The Level of Service Inventory • Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

MHS

Name:_____

Date:_____/_____/_____

Raw Score	Cum. Freq. for Prison Inmates
47	100.0
46	99.9
45	99.8
44	99.7
43	99.6
42	99.2
41	98.4
40	97.4
39	96.5
38	94.2
37	92.5
36	90.6
35	87.4
34	84.5
33	80.5
32	76.8
31	72.8
30	68.4
29	63.4
28	59.7
27	56.1
26	52.6
25	48.6
24	43.9
23	40.7
22	35.9
21	32.6
20	30.1
19	27.1
18	25.0
17	22.4
16	20.0
15	17.6
14	16.3
13	13.9
12	11.6
11	10.8
10	8.6
9	6.6
8	5.1
7	4.2
6	3.6
5	2.7
4	1.8
3	1.4
2	0.8
1	0.4
0	0.2

Red = High risk/needs, intensive levels of service in secure setting or close supervision, probation maximum

Blue = Low risk/needs, services not required, if in community, minimal supervision required, probation minimum

High Risk/Needs
Appx.76.0% chance of recidivism

Medium/High Risk/Needs
Appx. 57.3% chance of recidivism

Moderate Risk/Needs
Appx. 48.1% chance of recidivism

Low/Moderate Risk/Needs
Appx. 31.1% chance of recidivism

Low Risk/Needs
Appx. 11.7% chance of recidivism

If inmate, halfway house recommended for LSI-R scores less than or equal to 14.

N = 956
Male Inmates from
4 months to 2 years

Recidivism is defined as reincarceration within one year following release.

ColorPlot™ Profile Form for Male Inmates

Copyright © 1995, 1999, Multi-Health Systems, Inc. All rights reserved. In the U.S.A., 908 Niagara Falls Boulevard, North Tonawanda, NY 14120-2060, (800) 456-3003. In Canada, 3770 Victoria Park Avenue, Toronto, Ontario M2H 3M6, (800) 268-6011. Internationally, +1-416-492-2627. Fax, +1-416-492-3343 or (888) 540-4484.

LSI•R: The Level of Service Inventory • Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

MHS

Score	Inmates
47	100.0
46	99.9
45	99.8
44	99.7
43	99.6
42	99.2
41	98.4
40	97.4
39	96.5
38	94.2
37	92.5
36	90.6
35	87.4
34	84.5
33	80.5
32	76.8
31	72.8
30	68.4
29	63.4
28	59.7
27	56.1
26	52.6
25	48.6
24	43.9
23	40.7
22	35.9
21	32.6
20	30.1
19	27.1
18	25.0
17	22.4
16	20.0
15	17.6
14	16.3
13	13.9
12	11.6
11	10.8
10	8.6
9	6.6
8	5.1
7	4.2
6	3.6
5	2.7
4	1.8
3	1.4
2	0.8
1	0.4
0	0.2

Red = High risk/needs, intensive levels of service in secure setting or close supervision, probation maximum

Blue = Low risk/needs, services not required, if in community, minimal supervision required, probation minimum

High Risk/Needs
Appx.76.0% chance of recidivism

Medium/High Risk/Needs
Appx. 57.3% chance of recidivism

Moderate Risk/Needs
Appx. 48.1% chance of recidivism

Low/Moderate Risk/Needs
Appx. 31.1% chance of recidivism

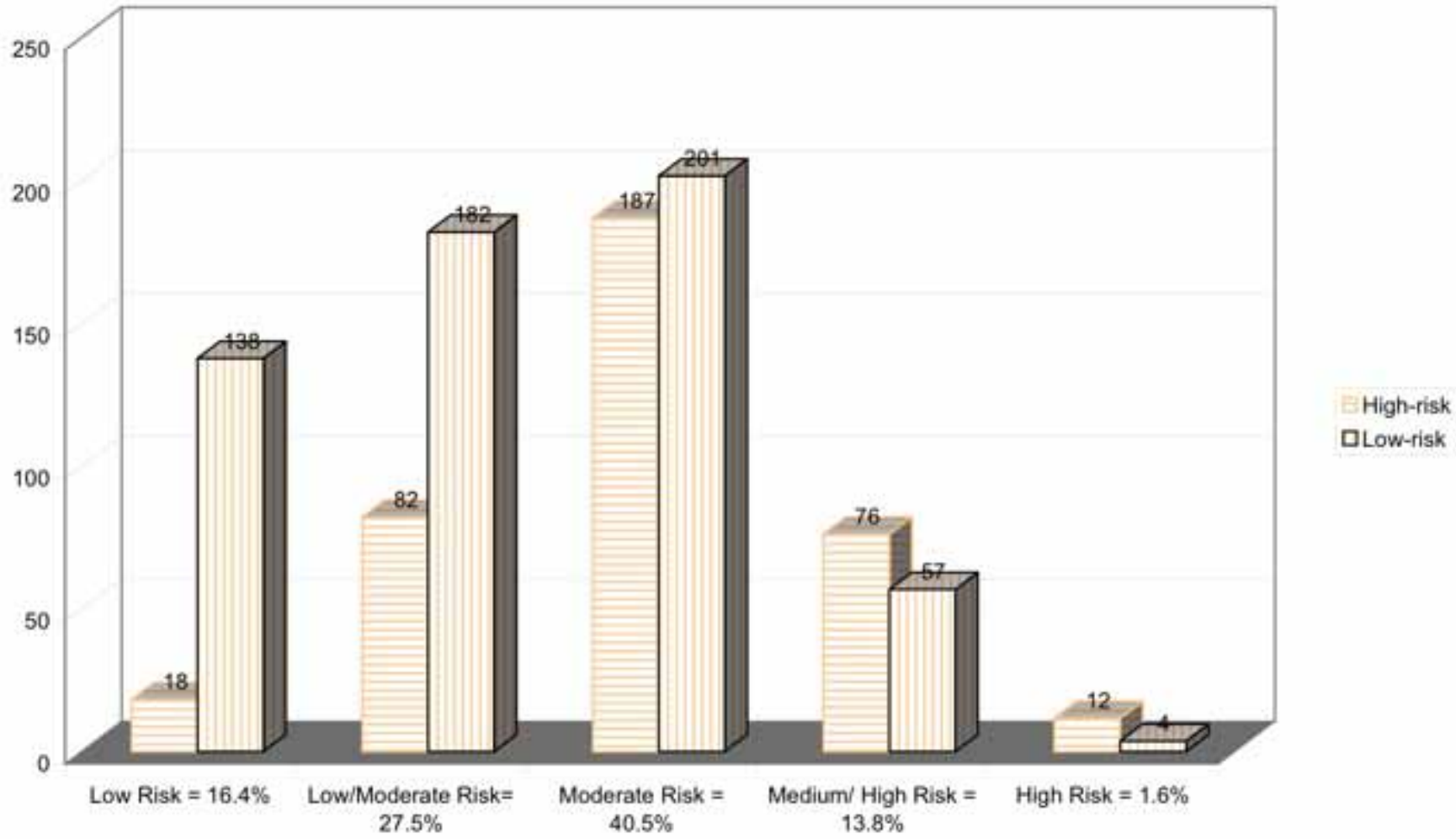
Low Risk/Needs
Appx. 11.7% chance of recidivism

If inmate, halfway house recommended for LSI-R scores less than or equal to 14.

N = 956
Male Inmates from
4 months to 2 years

Recidivism is defined as reincarceration within one year following release.

ColorPlot™ Profile Form for Male Inmates


250
200
150
100
50
0
18
138
82
182
187
201
76
57
12
4
High-risk
Low-risk
Low Risk = 16.4%
Low/Moderate Risk= 27.5%
Moderate Risk = 40.5%
Medium/ High Risk = 13.8%
High Risk = 1.6%

Example-based Modeling

Pattern matching

- Dynamic variables
- Static variables
- Integrity of interactions
- Common Risk Factors

- Optimized weights
- “What if” analysis
- Risk simulations empirically derived

Risk 1	Risk 2	Risk 3	Risk 4	Risk 5	Risk 6	Risk 7	Risk 8	Risk 9	Risk 10
x	x	x	x	x					
x	x	x	x		x				
x	x	x						x	x
x					x	x	x	x	
					x	x	x	x	x
			x	x	x	x	x		

Treatment Allocation

Dysfunction

Dysfunction = Need

Need = Treatment

With the goal of doing

what?

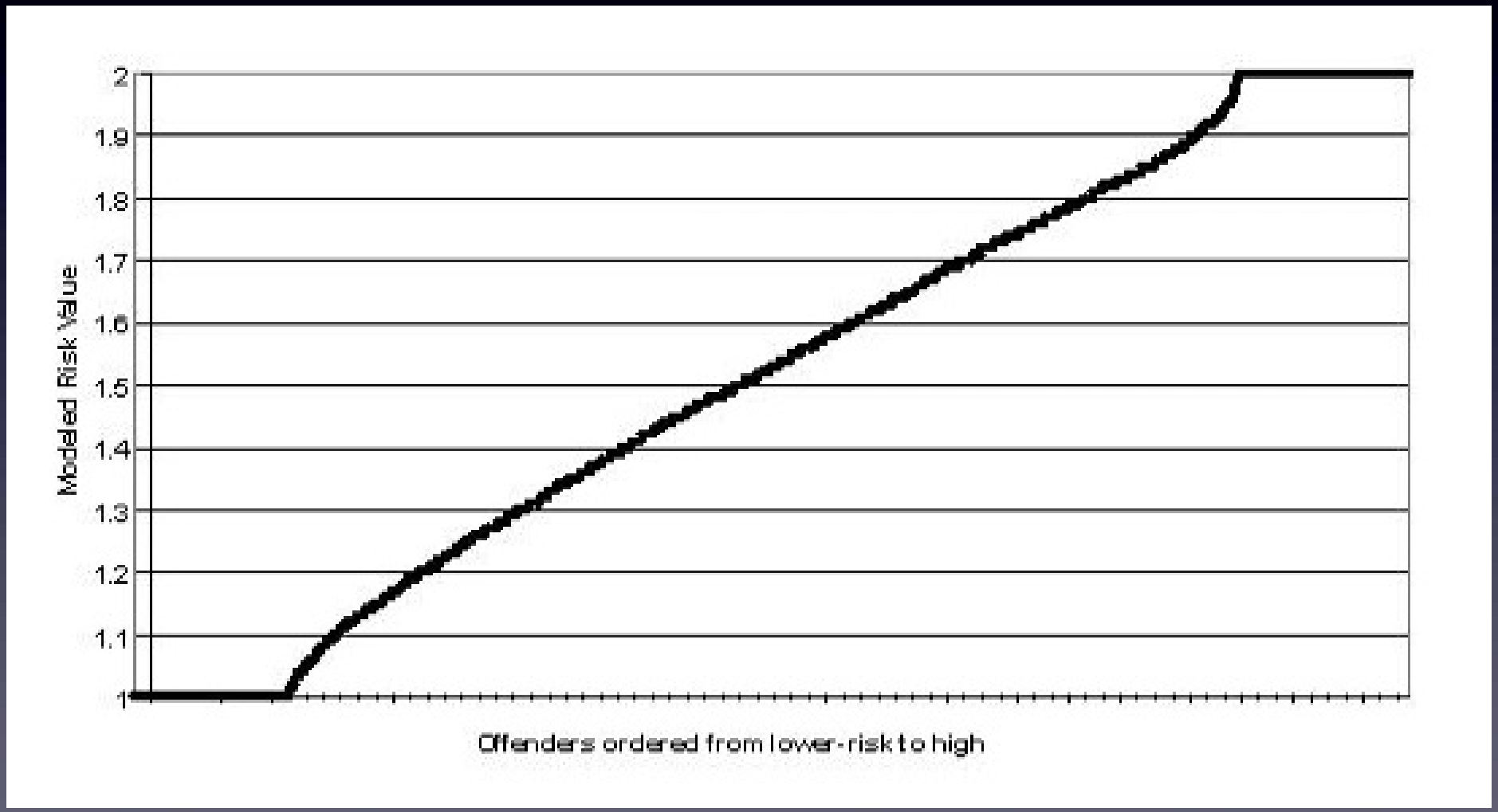
How do we do that?

run a simulation

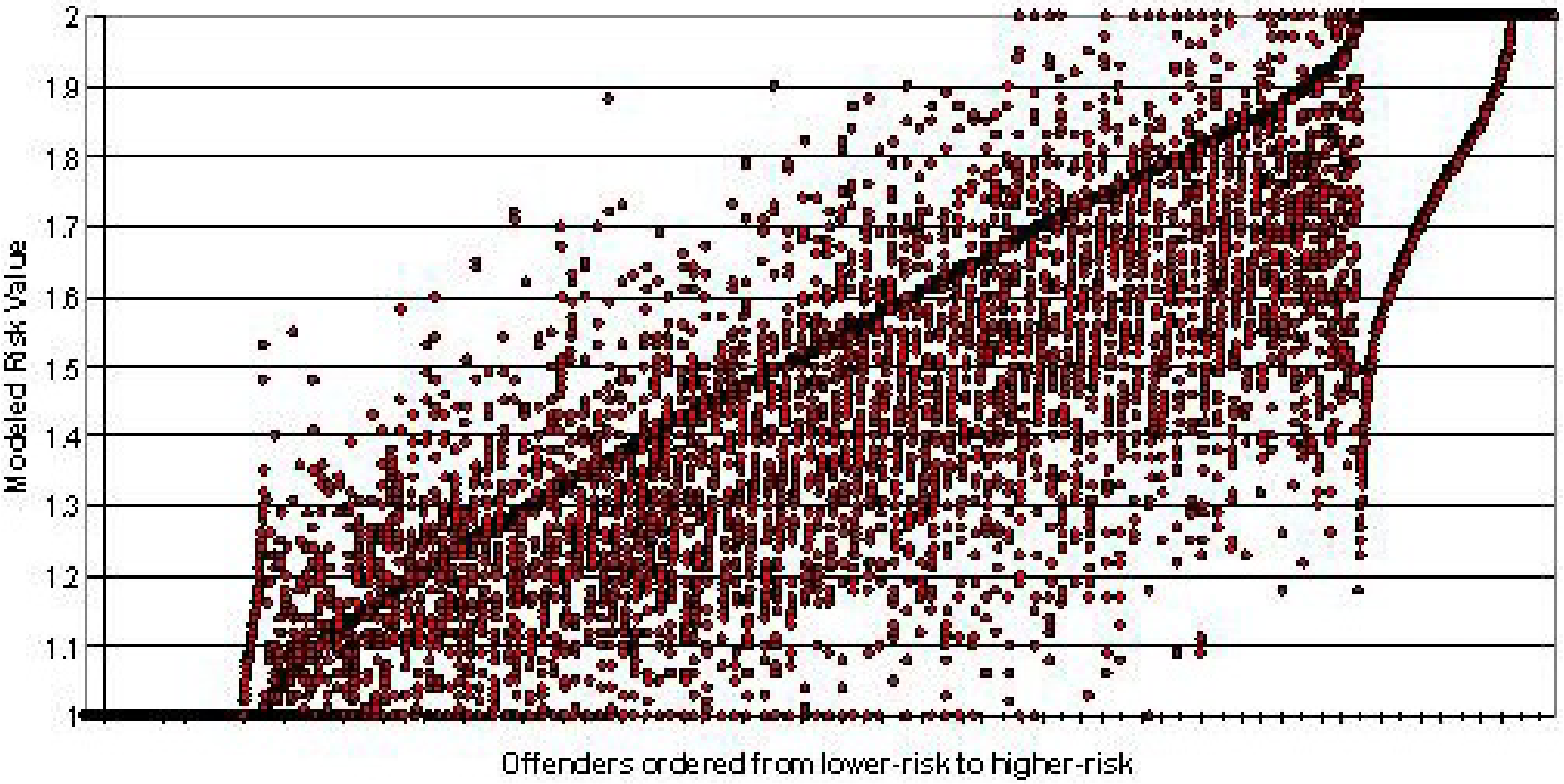
before

assigning treatment

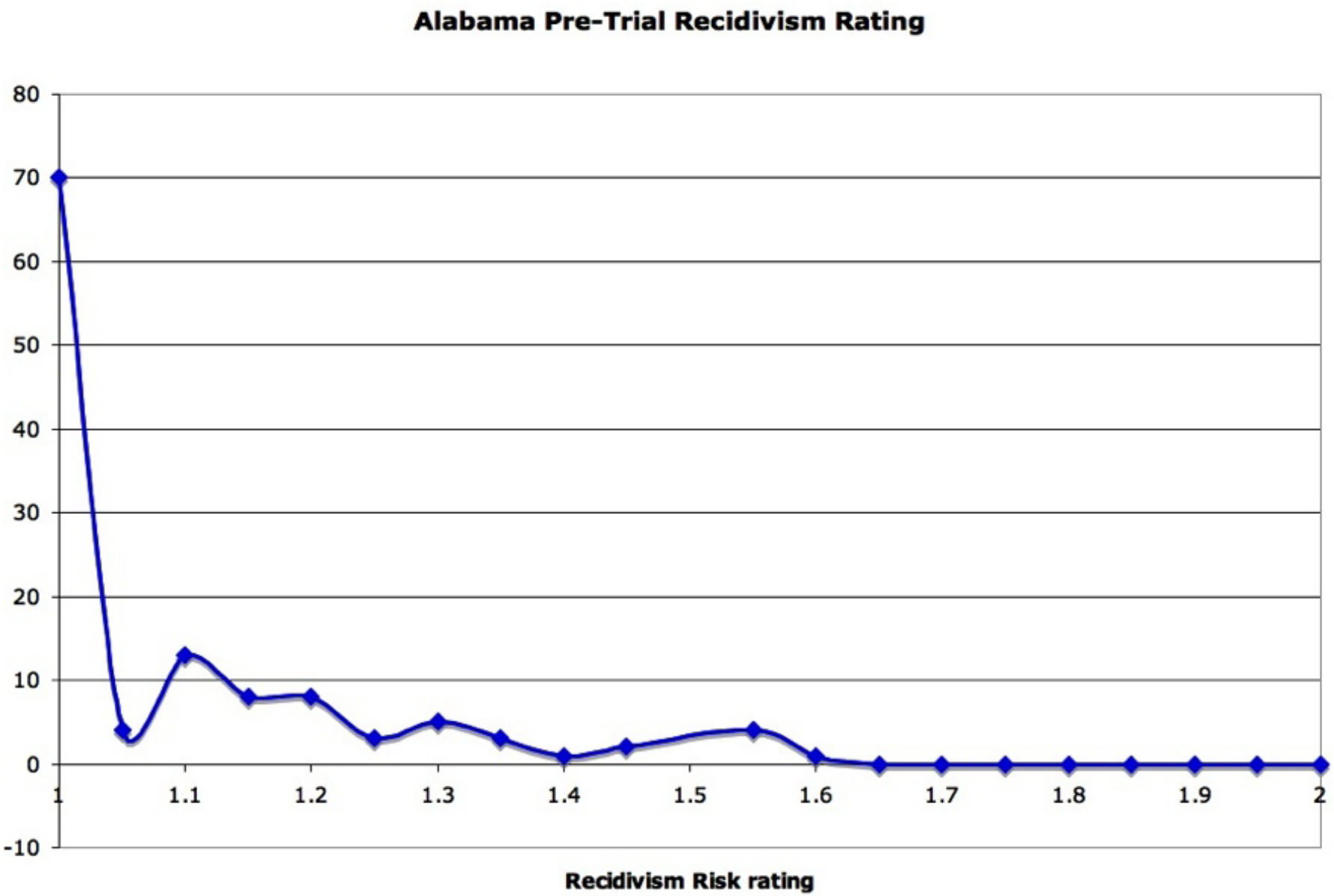
Patterned-based risk simulation

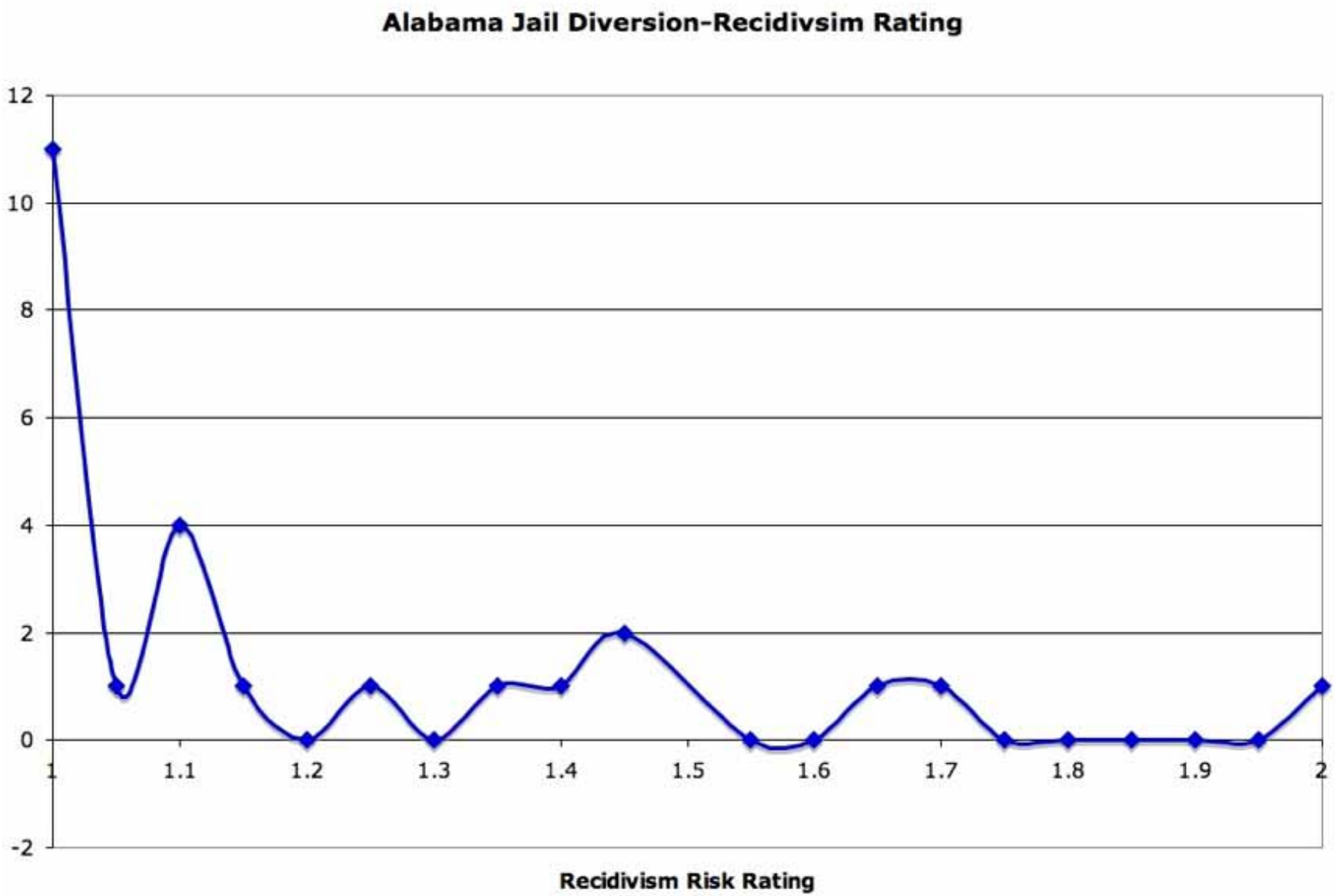


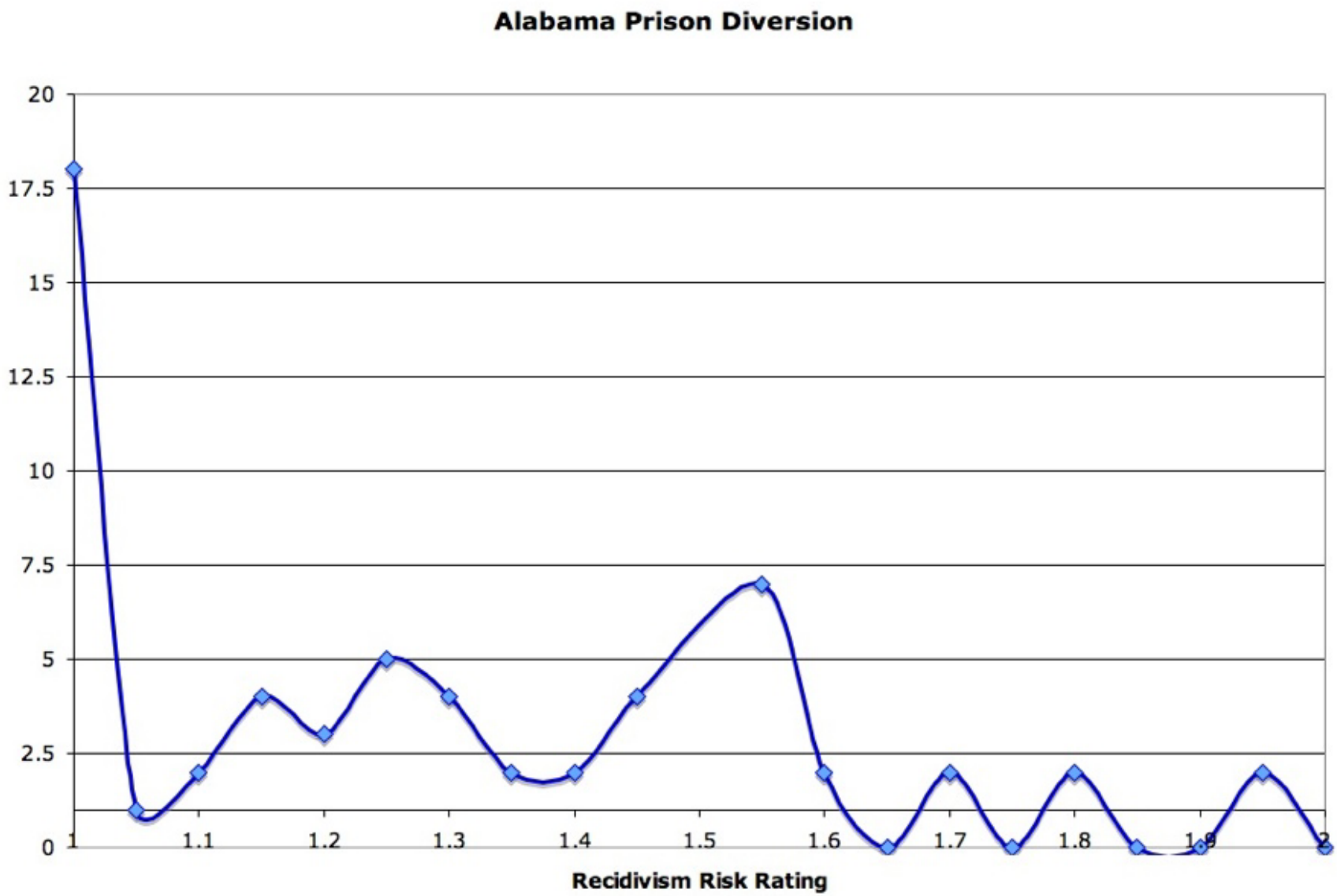
If they could completely change

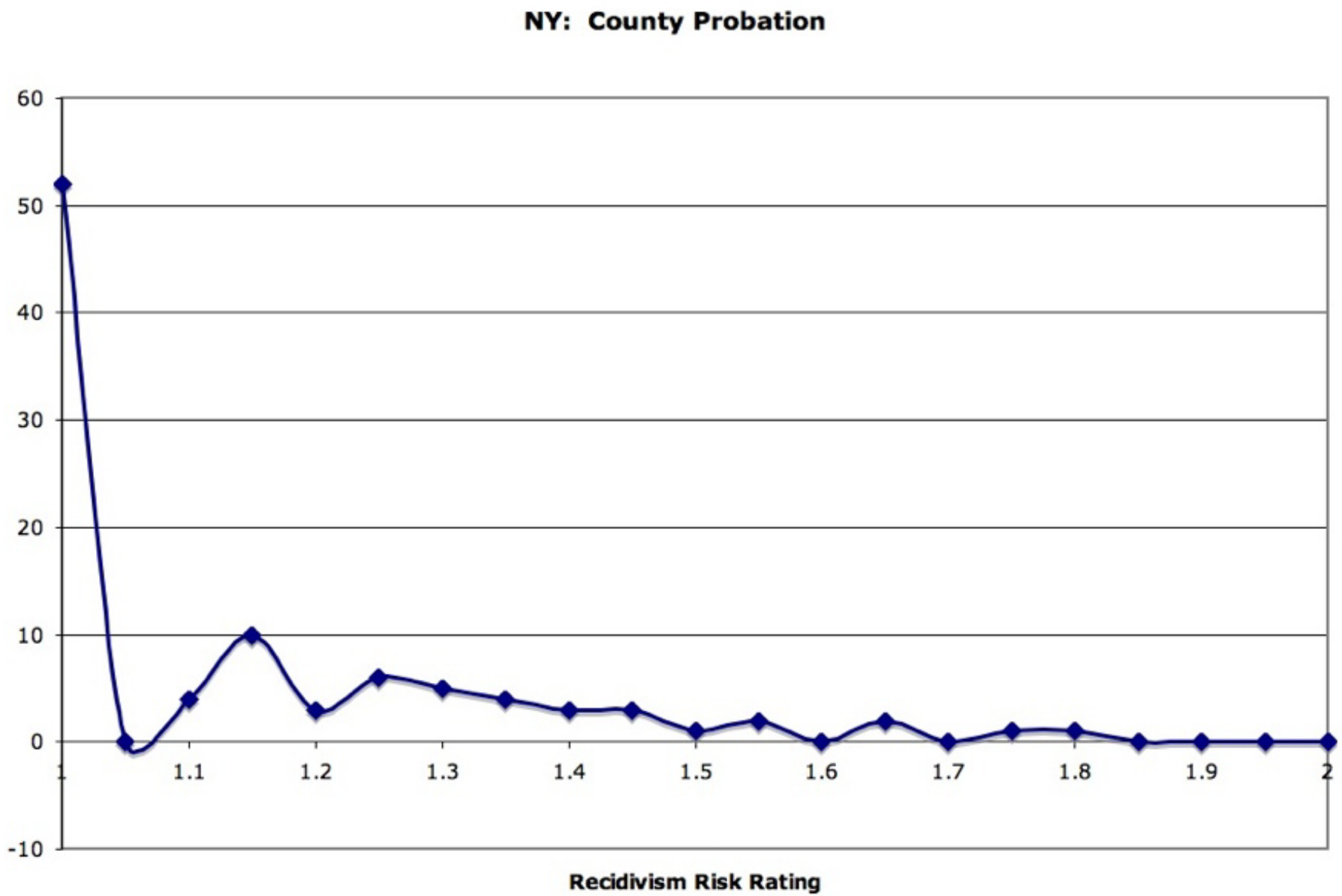


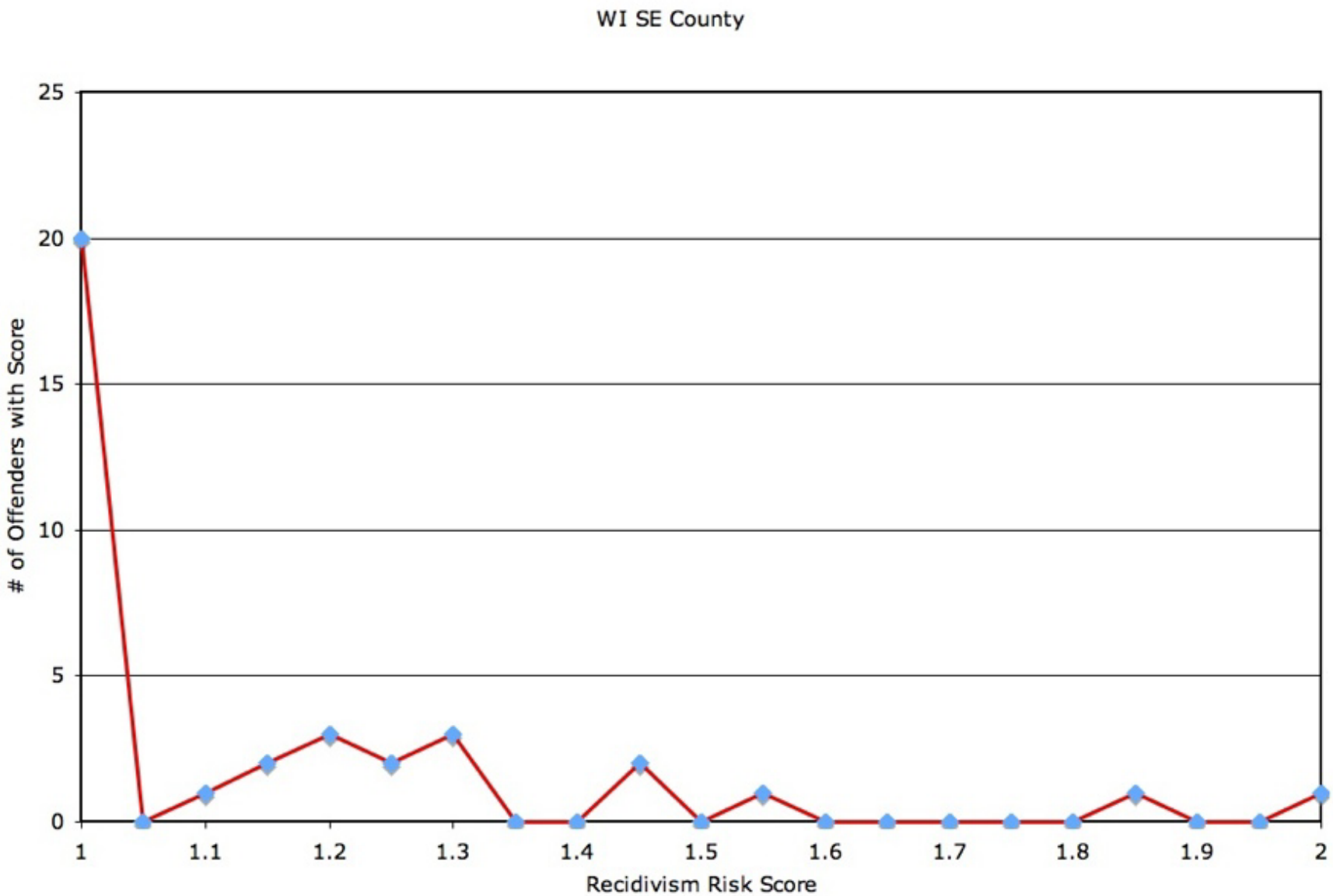
Data


Alabama Pre-Trial Recidivism Rating
80
70
60
50
40
30
20
10
0
-10
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Recidivism Risk rating

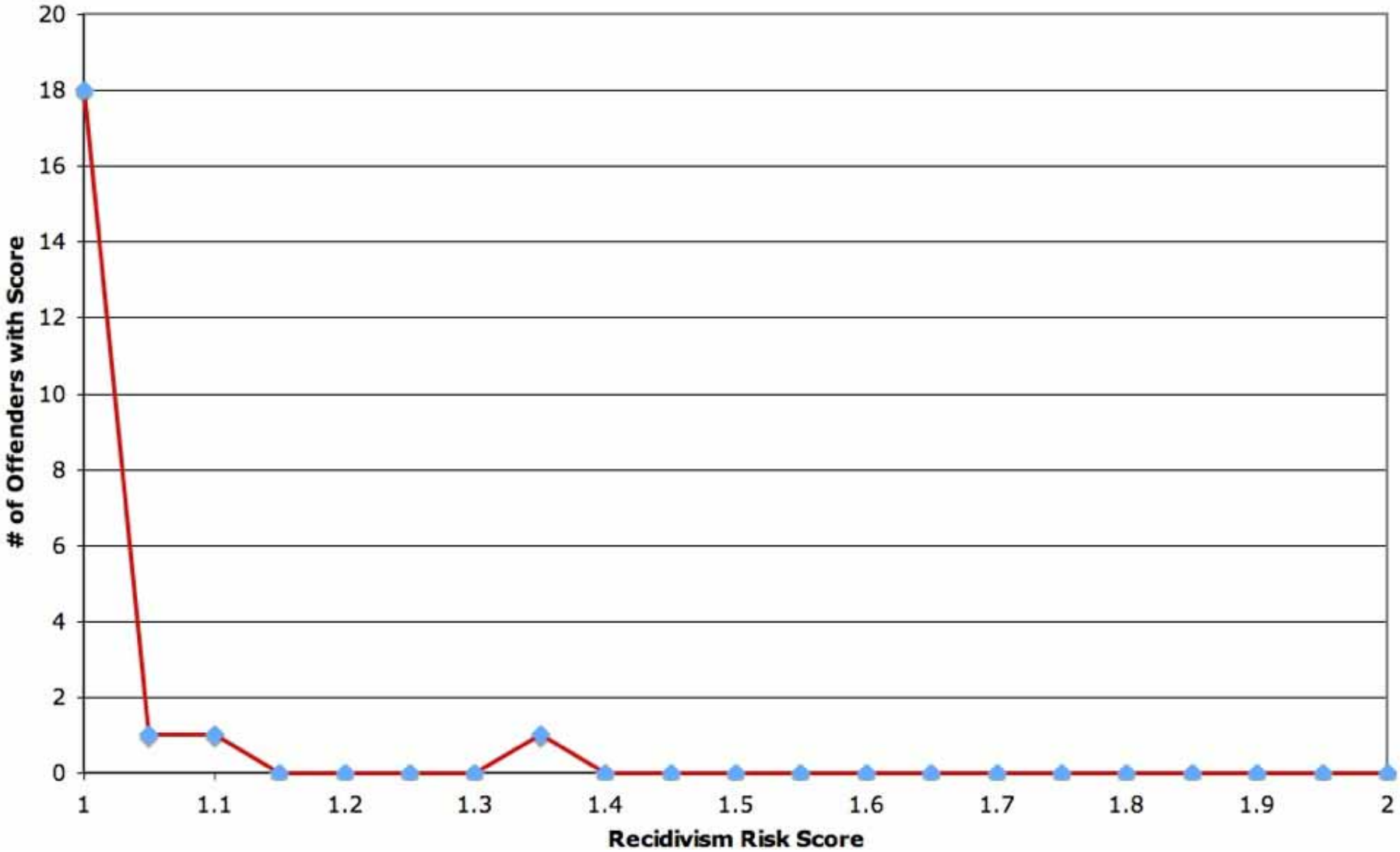
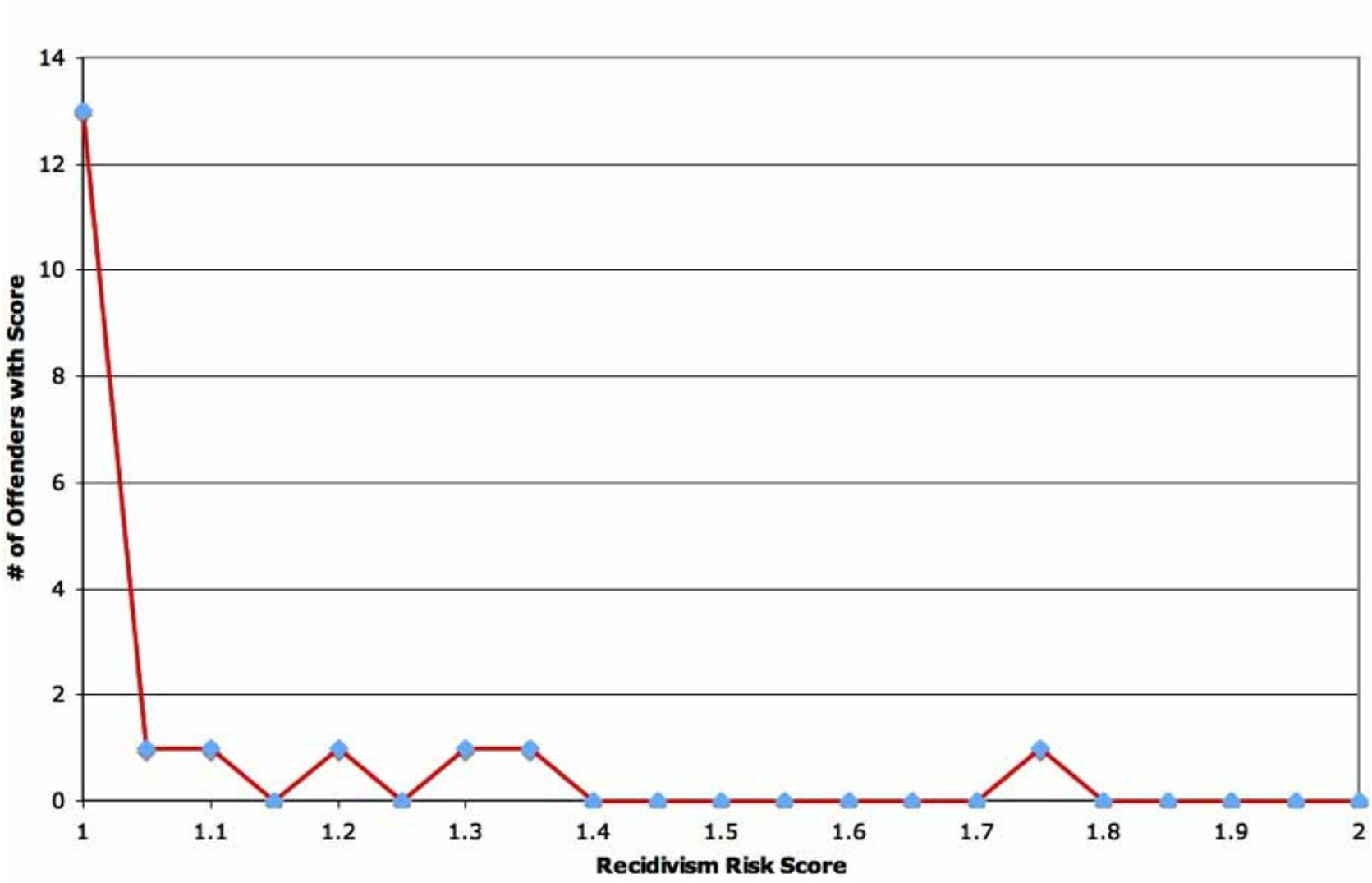

Alabama Jail Diversion-Recidivsim Rating
12
10
8
6
4
2
0
-2
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Recidivism Risk Rating


Alabama Prison Diversion
20
17.5
15
12.5
10
7.5
5
2.5
0
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Recidivism Risk Rating


NY: County Probation
60
50
40
30
20
10
0
-10
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Recidivism Risk Rating


WI SE County
25
20
15
10
5
0
# of Offenders with Score
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Recidivism Risk Score

WI County EM program



WI Central region