

1. Births

Births per 10,000 23-year-old women in the United States from 1917-1975.

Variable Names: 1.Birthrate: Births per 10,000 23-year-old women in the US from 1917-1975

2.Year: The year

Rate	Year
129.6	1935
132.2	1937
132.1	1939
148.1	1941
174.7	1943
143.3	1945
212	1947
201.8	1949
215.6	1951
231.5	1953
244	1955
268.8	1957
264.5	1959
264	1961
240	1963
204.8	1965
179	1967

Reference: P.K. Whelpton and A. A. Campbell, "Fertility Tables for Birth Charts of American Women," Vital StatisticsÑSpecial Reports 51, no. 1. (Washington D.C.:Government Printing Office, 1960, years 1917-1975). National Center for Health Statistics, Vital Statistics of the United States Vol. 1, Natality (Washington D.C.:Government Printing Office, yearly, 1958-1975).

Source: Velleman, P. F. and Hoaglin, D. C. (1981). Applications, Basics, and Computing of Exploratory Data Analysis. Belmont. CA: Wadsworth,

2. Mentally Ill

Your graph should compare the distance to the nearest mental health center to the percentage of “mentally ill” cared for at home.

These data are from an 1854 survey conducted by the Massachusetts Commission on Mental Illness under the leadership of Edward Jarvis. Dr. Jarvis was President of the American Statistical Association from 1852 to 1882.

1. NBR = Number of mentally ill, by county
2. DIST = Distance to nearest mental health center
3. POP = County population, 1950 (thousands)
5. PHOME = Percent of mentally ill cared for at home

COUNTY	NBR	DIST	POP	PHOME
BERKSHIRE	119	97	26.656	77
FRANKLIN	84	62	22.260	81
HAMPSHIRE	94	54	23.312	75
HAMPDEN	105	52	18.900	69
WORCESTER	351	20	82.836	64
MIDDLESEX	357	14	66.759	47
ESSEX	377	10	95.004	47
SUFFOLK	458	4	123.202	6
NORFOLK	241	14	62.901	49
BRISTOL	158	14	29.704	60
PLYMOUTH	139	16	32.526	68
BARNSTABLE	78	44	16.692	76
NANTUCKET	12	77	1.740	25
DUKES	19	52	7.524	79

3. Mercury Levels

Compare the average amount of mercury in each lake studied.

Reference: Lange, Royals, & Connor. (1993). *Transactions of the American Fisheries Society* .

Authorization: contact authors

Description: Largemouth bass were studied in different Florida lakes to examine the factors that influence the level of mercury contamination. Water samples were collected from the surface of the middle of each lake in August 1990 and then again in March 1991. The pH level, the amount of chlorophyll, calcium, and alkalinity were measured in each sample. The average of the August and March values were used in the analysis. Next, a sample of fish was taken from each lake with sample sizes ranging from 4 to 44 fish. The age of each fish and mercury concentration in the muscle tissue was measured. (Note: Since fish absorb mercury over time, older fish will tend to have higher concentrations). Thus, to make a fair comparison of the fish in different lakes, the investigators used a regression estimate of the expected mercury concentration in a three year old fish as the standardized value for each lake. Finally, in 10 of the 53 lakes, the age of the individual fish could not be determined and the average mercury concentration of the sampled fish was used instead of the standardized value.

The Data:

Lake	Average	No. of			3_yr _
	Mercury	Samples	min	max	Mercury
Alligator	1.23	5	0.85	1.43	1.53
Annie	1.33	7	0.92	1.90	1.33
Apopka	0.04	6	0.04	0.06	0.04
Blue Cypress	0.44	12	0.13	0.84	0.44
Brick	1.20	12	0.69	1.50	1.33
Bryant	0.27	14	0.04	0.48	0.25
Cherry	0.48	10	0.30	0.72	0.45
Crescent	0.19	12	0.08	0.3	0.16
Deer Point	0.83	24	0.26	1.40	0.72
Dias	0.81	12	0.41	1.47	0.81
Dorr	0.71	12	0.52	0.86	0.71
Down	0.50	12	0.10	0.73	0.51
Eaton	0.49	7	0.26	1.01	0.54

4. Favorite School Subjects

U.S. Education Secretary Rod Paige unveiled the Bush administration's proposed solution -- the Mathematics and Science Initiative -- during a February math summit. Among other measures, the initiative calls for a public relations campaign to plug the importance of math and science education and encourage more students to pursue these studies. However, Gallup data indicate that math and science are already popular subjects among many U.S. teens. According to the results of the 2003 Gallup Youth Survey*

Subject	% of students favorite
Math	23
Other	17
Science	14
History/Social Studies	10
English	10
P.E.	8
None	5
Art	5
Music	5
Foreign Language	3