DAC Example

Stat 133 with Gaston Sanchez
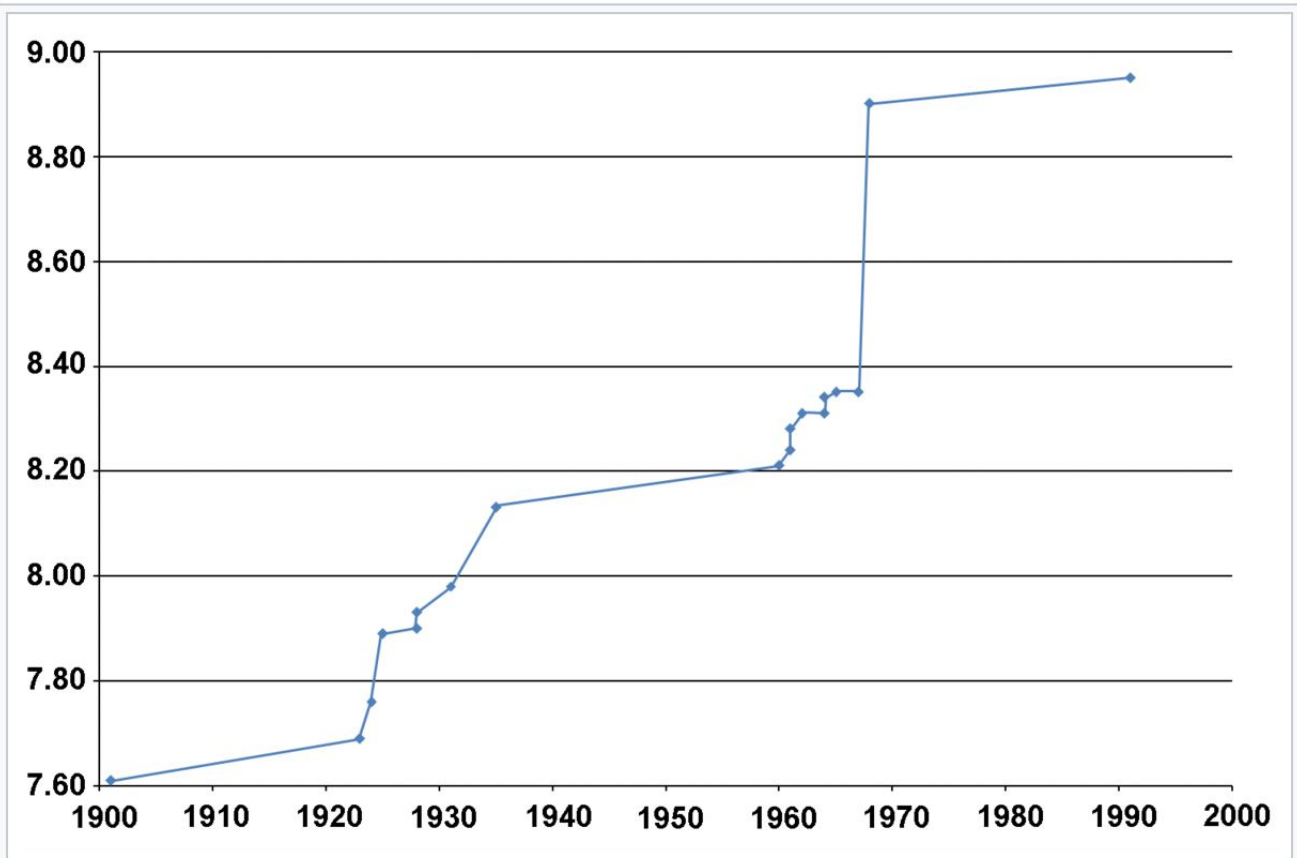
Men's Long Jump World Record

Wikipedia

https://en.wikipedia.org/wiki/Men%27s_long_jump_world_record_progression
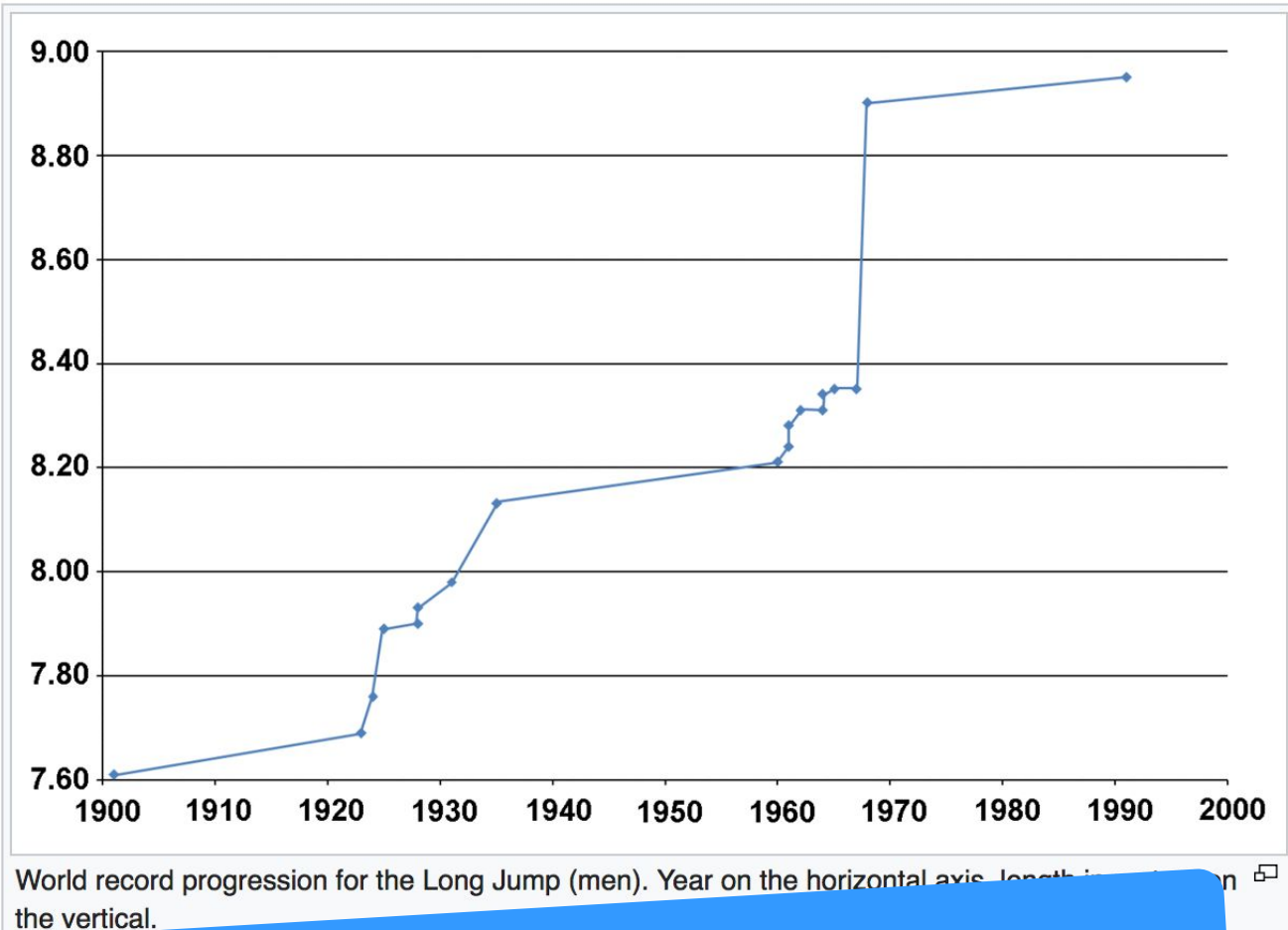
Record progression [edit]

Mark	Wind	Athlete	Venue	Date
7.61 m (24 ft 11½ in)		🇮🇪 Peter O'Connor (IRE)	Dublin, Ireland	5 August 1901[1]
7.69 m (25 ft 2¾ in)		🇺🇸 Edward Gourdin (USA)	Cambridge, United States	23 July 1921[1]
7.76 m (25 ft 5½ in)		🇺🇸 Robert LeGendre (USA)	Paris, France	7 July 1924[1]
7.89 m (25 ft 10¾ in)		🇺🇸 DeHart Hubbard (USA)	Chicago, United States	13 June 1925[1]
7.90 m (25 ft 11 in)		🇺🇸 Edward Hamm (USA)	Cambridge, United States	7 July 1928[1]
7.93 m (26 ft 0 in)	0.0	🇭🇹 Sylvio Cator (HAI)	Paris, France	9 September 1928[1]
7.98 m (26 ft 2 in)	0.5	🇯🇵 Chuhei Nambu (JPN)	Tokyo, Japan	27 October 1931[1]
8.13 m (26 ft 8 in)	1.5	🇺🇸 Jesse Owens (USA)	Ann Arbor, United States	25 May 1935[1]
8.21 m (26 ft 11¼ in)	0.0	🇺🇸 Ralph Boston (USA)	Walnut, United States	12 August 1960[1]
8.24 m (27 ft ½ in)	1.8	🇺🇸 Ralph Boston (USA)	Modesto, United States	27 May 1961[1]
8.28 m (27 ft 2 in)	1.2	🇺🇸 Ralph Boston (USA)	Moscow, Soviet Union	16 July 1961[1]
8.31 m (27 ft 3¼ in)	-0.1	🇷🇺 Igor Ter-Ovanesyan (URS)	Yerevan, Soviet Union	10 June 1962[1]
8.31 m (27 ft 3¼ in)	0.0	🇺🇸 Ralph Boston (USA)	Kingston, Jamaica	15 August 1964[1]
8.34 m (27 ft 4¼ in)	1.0	🇺🇸 Ralph Boston (USA)	Los Angeles, United States	12 September 1964[1]
8.35 m (27 ft 4¾ in)	0.0	🇺🇸 Ralph Boston (USA)	Modesto, United States	29 May 1965[1]
8.35 m (27 ft 4¾ in) **at Altitude**	0.0	🇷🇺 Igor Ter-Ovanesyan (URS)	Mexico City, Mexico	19 October 1967[1]
8.90 m (29 ft 2½ in) **at Altitude**	2.0	🇺🇸 Bob Beamon (USA)	Mexico City, Mexico	18 October 1968[1]
8.95 m (29 ft 4¼ in)	0.3	🇺🇸 Mike Powell (USA)	Shinjuku, Tokyo, Japan	30 August 1991[1]

Graphic evolution [edit]

World record progression for the Long Jump (men). Year on the horizontal axis, length in meters on the vertical.

Graphic evolution   [edit]

World record progression for the Long Jump (men). Year on the horizontal axis, length in meters on the vertical.

Let's try to make our own plot

What do you need to replicate the graph?

Demo

In summary

Get the data: copy and paste wikipedia table into a spreadsheet

Data prep: goal is to get the distance and year, which involves data manipulation

Analysis: exploratory graph with a scatterplot

Report?

http://www.phdcomics.com/comics/archive.php?comicid=462

Data Preparation

- Acquisition
- Storage
- Cleaning
- Processing
- Tidying
- Reshaping
- Wrangling

Analyses

- Exploration
- Description
- Visualization
- Hypothesis Tests
- Inference
- Simulation
- Model Fitting

Reports
- Document(s)
- Article(s)
- Book(s)
- Poster(s)
- Blog post(s)
- Dissertation
- News

Communication

- Oral
- Print
- Web
- Audio
- Video
- Multimedia
- Other

My vision of the Data Analysis Cycle