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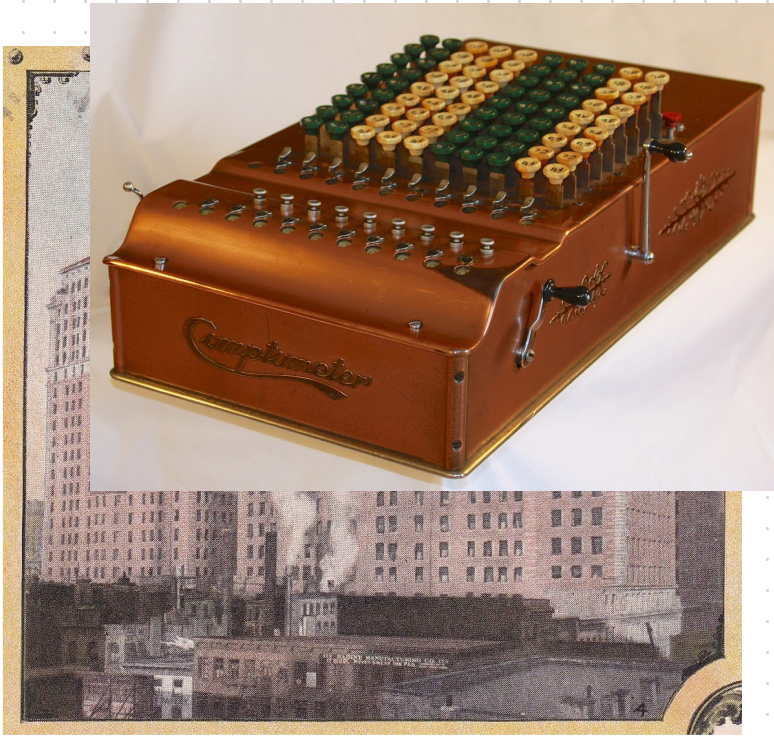

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Linear Programming and Extensions

George B. Dantzig

(Dantzig's famous book)

STIGLER'S NUTRITION MODEL: AN EXAMPLE OF FORMULATION AND SOLUTION

One of the first applications of the simplex algorithm was to the determination of an adequate diet that was of least cost.[1] In the fall of 1947, J. Laderman of the Mathematical Tables Project of the National Bureau of Standards undertook, as a test of the newly proposed simplex method, the first large-scale computation in this field. It was a system with nine equations in seventy-seven unknowns. Using hand-operated desk calculators, approximately 120 man-days were required to obtain a solution.

The particular problem solved was one which had been studied earlier by G. J. Stigler [1945-1], who had proposed a solution based on the substitution of certain foods by others which gave more nutrition per dollar. He then examined a "handful" of the possible 510 ways to combine the selected foods. He did not claim the solution to be the cheapest but gave good

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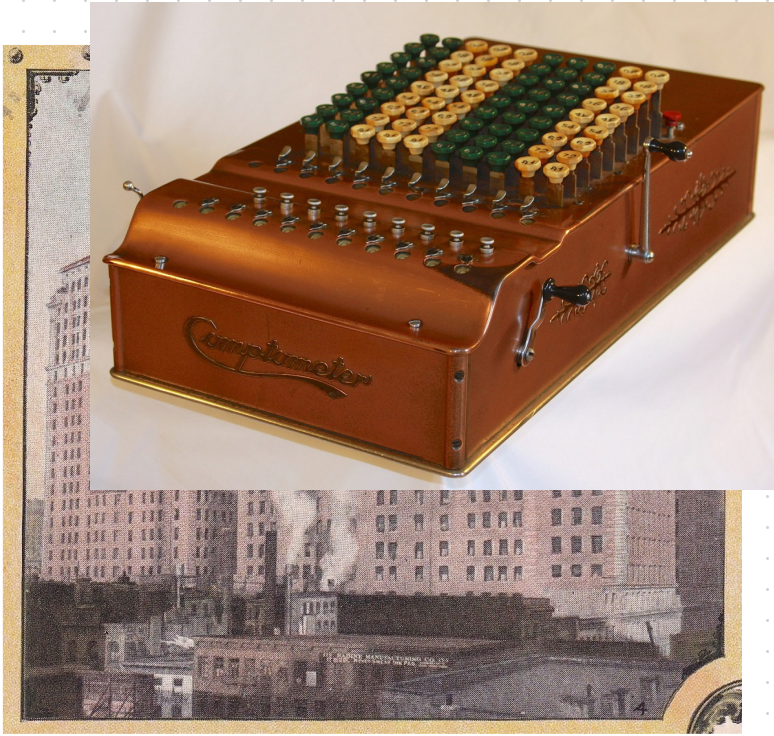
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38. Mathematical Tables Project computers with adding machines

Historical takeaways

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Their contributions were made invisible by contemporary white men
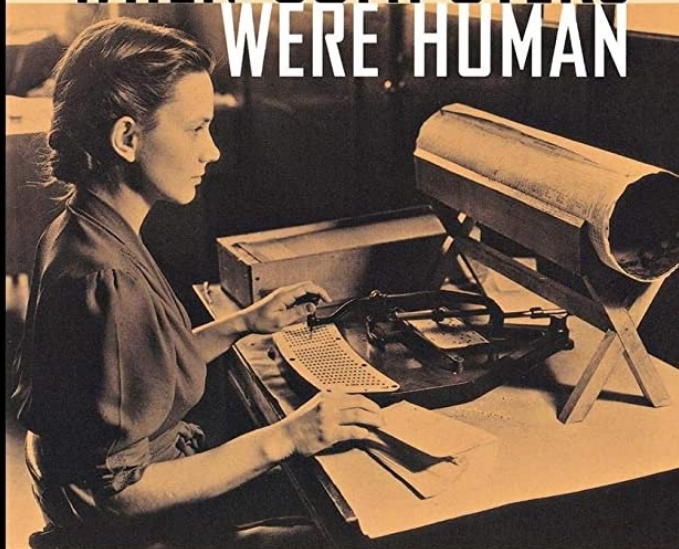
Historical takeaways

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Their demographics are exactly those underrepresented in our field today

WHEN COMPUTERS WERE HUMAN

WERE HUMAN

David Alan Grier

today's source