REFERENCES

- 1. T. M. Apostol, Introduction to Analytic Number Theory, Springer-Verlag, New York. 1976.
- 2. L. E. Dickson, History of the Theory of Numbers, Chelsea Publishing Company, New York, 1952.
- 3. L. Levine, Fermat's Little Theorem: a proof by function iteration, this MAGAZINE 72 (1999), 308-309.
- 4. P. Ribenboim, The New Book of Prime Number Records, Springer-Verlag, New York, 1996.
- A. Selberg, An elementary proof of Dirichlet's theorem about primes in an arithmetic progression, Ann. of Math. 50 (1949), 297–304.

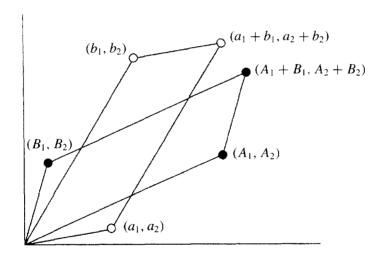
Proof Without Words: Simpson's Paradox

JERZY KOCIK

Southern Illinois University Carbondale, IL 62901

Popularity of a candidate is greater among women than men in each town, yet popularity of the candidate in the whole district is greater among men.

Procedure A has greater success than procedure B in each hospital, yet, in general, procedure B has greater success than A.



$$\frac{a_2}{a_1} < \frac{A_2}{A_1}$$
 and $\frac{b_2}{b_1} < \frac{B_2}{B_1}$, yet $\frac{a_2 + b_2}{a_1 + b_1} > \frac{A_2 + B_2}{A_1 + B_1}$

For more about Simpson's paradox, see

- 1. Thomas R. Knapp, Instances of Simpson's paradox, College Math. J., 16:3, 209-211.
- 2. A. Tan, A geometric interpretation of Simpson's paradox, College Math. J., 17:4, 340-341.