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TO: ✓ Dr. J. G. Burdick

FROM: B. A. Sobel

SUBJECT: Mortality Study - Houston Plant
10/1/60 to 8/1/76

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I have studied the subject report and agree with its basic conclusion: that Houston plant workers and general Texas death rates do not differ significantly.

Actually, inspection of the data (Table 5-2, for example) indicates that the plant death rate is lower than for populations as a whole except for cancer, where 19 deaths were observed with 17.1 expected.

$$\begin{aligned} p &= 19/14490 = .001311 \\ f &= 17.1/14490 = .001180 \end{aligned} \quad \Delta = .000131$$

$$s = \sqrt{\frac{.001311 \times .998689}{14490}} = .000301$$

Evidently, there is no significant difference.

I have calculated some of the Chi-square values and found them to be non-significant at any rational level.

I would have preferred that the paper include the statistical tests. The statement that "none of the tests were significant at the .05 level" does not preclude the statement "all the tests were significant at the 0.20 level". This latter would be of tremendous significance in interpreting the data.

The loss of a few points, as apparently happened, did not affect the conclusions. This is almost always the case with large amounts of data - that an absent or aberrant point has negligible effect on the conclusions.


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BAS:mfl