THE AUTHORS REPLY

We appreciate Tse and Yu’s comments (1) regarding the findings from our study of esophageal and stomach cancers among female textile workers in Shanghai (2). It is true that there was an overall deficit of esophageal cancer in the cohort.
compared with prevailing rates among Shanghai women (3). There were also incidence deficits of other smoking-related malignancies, including cancers of the lung, larynx, urinary bladder, and stomach (3). These deficits could have been due to a relatively lower smoking prevalence in the cohort of textile workers (<3 percent) than in the general population of Shanghai women (8.3 percent) (4). Nonetheless, it is well-established that the most valid approach for assessing dose-response gradients in an occupational cohort is to conduct internal comparisons among subgroups of the cohort classified by exposure type and level, as we did in this study. The availability of smoking data in our cohort was especially advantageous for controlling potential confounding in our analyses of risks related to textile-industry exposures.

It is reasonable to express concern about confounding by unmeasured dietary factors, which are strong determinants of esophageal and stomach cancers. However, it is unlikely that workers’ diets varied systematically by exposure level, and thus dietary factors were probably not important confounders in our study.

Tse and Yu (1) also expressed concern that co-occurring exposure to polycyclic aromatic hydrocarbons cannot be discounted as an explanation for the observed elevated risk of esophageal cancer that we attributed to exposure to silica and, to a lesser extent, metals in textile-industry foundries. We agree that the absence of data on polycyclic aromatic hydrocarbons and other foundry exposures is a limitation, as we acknowledged in the Discussion section of our paper (2). We also indicated in the Discussion that prior epidemiologic evidence derived from studies in other industries demonstrating excess esophageal cancer risk related to silica offers support for a causal inference. Silica dust was a relatively uncommon exposure among female workers in the Shanghai textile industry. Firmer conclusions concerning relations between silica and esophageal cancer will require additional investigation in cohorts with more prevalent silica exposures. Foundry-worker cohorts may be well-suited for investigating independent and interactive associations with silica, metals, and other carcinogens.

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REFERENCES

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