had increased to approximately 130 million.

Dr. George Wright, industrial medical consultant, pointed out that many garage mechanics perform grinding operations in addition to cleaning of the brake wear dusts. These workers would be exposed to longer fibers and thus would be expected to demonstrate the full spectrum of asbestos related diseases. Dr. Wright suggested the following points be considered with respect to future studies of brake mechanics:

1) A cohort should be established exposed solely to the dust released from "used" brakes by blowing or brushing. These dusts contain broken down fibers, resins, etc. Fibers present in these dusts are largely shorter than 5 μm with some proportion altered to an amorphous fiber. Such a study, if properly conducted, could answer questions concerning the significance of exposures to brake wear dusts and the biological significance of short versus long asbestos fibers.

2) Since only chrysotile has been used for asbestos brake linings, a study of brake mechanics would provide an opportunity to study industrial (as opposed to mining and milling) chrysotile exposures with respect to the development of mesothelioma. Dr. Wright suggested that low priority be given to anything other than a mesothelioma survey.

3) A careful, sophisticated study of brake cleaning methods and work practices should be conducted to determine the optimum work practices for reducing exposures.

Dr. Wright stated that in his opinion the chances of designing a study to determine does-response relationships is minimal.

Dr. Craft asked the group to consider the possibility of defining a suitable cohort exposed solely to brake lining wear dust (short fibers) for purposes of health studies.

Mr. John Marsh, Raybestos-Manhattan Incorporated, presented data showing the number of workers in various types of garages. These data were as follows:

Garage Type	Approx. # Facilities	Av. # Mechanics Per Shop	% of All Brake Work Performed
Service Stations	195,000	2.5	50%
Independent Garages	108,000	2.7	30%
New Car Shops	39,000	5.7	18%
Fleet Shops	21,000	7.6	1-2%

008184

PRODUCED BY FORD