

by Monopoly to be employing 20% in 1939, while Competition and Compulsory Cartels employed 80%, after eliminating 15% of a larger total as not allocable, 72% of this being Government. (Our chart 3 shows the magnitudes of organized commercial and Federal R&D at all dates.) Taking our year 1953-54 from table 7, ¶ 382, column 5 plus line 6, we read that the business motivation, this time taking in the tax benefit which it is free to use monopolistically or otherwise, contributes 52.1% of invention etc. Let us take 20% of this, making 10.4% for a rough guess as to the extent of private monopoly support for invention in our standard year. But this is quite unreliable, and incidentally would call for reducing other percentages by a corresponding amount. The share of monopoly would be somewhat less in the latest years due to the rise of Government inventing.

[430] Our one remaining mentioned institutional support for invention, viz., the miscellaneous services of government, often State and local, through libraries, museums, education, etc., is impossible to quantify for invention, and not necessary, since it operates only through the other institutions considered.

[431] In summary, first the share of government has become the greatest in the breeding of invention, say 61%, practically all Federal, without citing the miscellaneous ways in which government helps invention through education, libraries, postal subsidies, etc. The smaller, commercial sector, including the unorganized inventors, might be measured in various ways. As a controller of funds it might be rated at 52.1% (¶ 429). As an administrator of performance it might be rated as 69.7% of all.<sup>428</sup> But as a support of invention and research it seems to pay for only 37.2% (table 7, col. 5). And for fully competitive private industry we should figure something like 33%.<sup>429</sup> The philanthropic element comes to 1.4%. The minor supports, after setting aside the big two (the Federal Treasury and unduplicated organized industry) are all very minor, but still add up to about 9%. They should be possibly 17% larger with appropriate reduction of the big two, if we could have found figures for the research building funds of these sources, universities, etc. Such additions to plant and equipment amounted to around that percentage<sup>430</sup> in the case of organized industry<sup>390</sup> and government.<sup>369</sup>

[432] Our brief, bald, and shaky statistics may seem a small reward for much belaboring of data; but since they are *more* explicit, detailed and sound measures than have ever been provided, for comparison of magnitudes most important when considering invention and the patent system, the author thinks them justifiable, as explained in ¶ 12.