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Volume Author/Editor: John W. Kendrick

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APPENDIX

SOURCES AND METHODS

Introduction

This appendix describes in some detail the data sources and methodology underlying the estimates of outputs, inputs, and productivity presented and analyzed in this study. Part I covers the national economy, by major sector. Part II covers the various industry groups (one-digit SIC codes) and component industries within the private domestic business economy, around which most of the analysis is centered. Part III presents Tables A-1 through A-80—the basic statistical tables for this study.

Part I corresponds to Appendix A in *Productivity Trends in the United States* (hereafter referred to as *Productivity Trends*); Part II covers the areas comprising Appendixes B through K in the earlier volume. The appendix material in this monograph is considerably shorter than that in *Productivity Trends*, for two reasons. First, where substantially the same sources and methods are used as in the prior work, we summarize them briefly, with appropriate references. Second, and more important, the estimates presented in *Productivity Trends* generally extend back to the latter part of the nineteenth century, whereas the series revised and extended to 1966 or 1969 for this study begin with 1929 for the national economy by major sector, plus farming and manufacturing, and with 1948 for the other industries.

Appendix tables A-1 through A-21 relate to the national economy by major sectors, while tables beginning with A-22 relate to the various industry segments and groups. In all cases in which the tables presented here have the same or similar coverage as those contained in *Productivity Trends*, references to the specific table numbers in the latter source are noted. For all practical purposes, most of the time series presented here can be extrapolated back by the corresponding earlier series, although it should be mentioned that in many cases sector and industry definitions have been modified—usually to a

minor degree—since the preparation of the estimates contained in *Productivity Trends*.

With respect to the weighting of industry and sector outputs and inputs required to obtain aggregates, we have revised and extended the previous system. That is, for the period 1948-53, we used the Marshall-Edgeworth formula, applying an average of revised relative weights in the first and last years of the period to the component series for each of the six annual values. The series so obtained were then linked in 1953 to the corresponding series for the period 1953-66, obtained by applying 1958 relative weights to the components. For the several aggregates that we revised back to 1929, we used the same weighting procedures for the period 1929-48 as those described in *Productivity Trends*.

As indicated in the text, we also introduce two new sets of series in the present volume. First, we have made use of the OBE real product estimates for the various industry groups and subgroups, beginning with 1948. These are not available prior to 1947, except for farming, but we also present gross output series and the corresponding productivity estimates which are consistent with the historical nonfarm industry series. Second, we include gross as well as net real capital stock series for the sectors and various industries, and the associated gross factor input and productivity estimates. These variant measures are not contained in *Productivity Trends*, and comparisons of movement with the net measures are limited to the period covered in the current study. Both the gross and the net input series include labor input measured as weighted man-hours.