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Part IV

Review of the 'Composition of Estates Survey'

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I am deeply indebted to the Office of Business Economics of the Department of Commerce and to the members of the National Income Division in particular for their cooperation and records. I, however, assume complete responsibility for all statements, including those that may be in error and those that may imply distortion in emphasis. While in the National Income Division I was designated to work on the Estates Survey and spent a considerable share of my time on it during more than two years.

THE 'COMPOSITION OF ESTATES SURVEY' neatly illustrates statistical undertakings that are not completed. The reasons in this case are difficulties inherent in the subject together with complications arising from the way the survey was carried out. Review of the record is in order as a warning against repetition of certain faults; it may provide also constructive suggestions. With these objectives in mind, this paper becomes a case study focusing attention on problems and difficulties in studying probate and transfer-tax records of decedents as a means of estimating the property holdings of individuals by size classes.

It is not the intent to point systematically to the shortcomings of the Estates Survey. The record speaks for itself. Impressive is the conscientiousness and good faith of the many who worked on the survey. In various capacities they brought to it different experiences and interests.

A Note on Administrative Conduct

The Composition of Estates Survey traces back to the Division of Industrial Economics of the Department of Commerce. Beginning in December 1939 and carrying on for about a year, its originators supplied the initiative and general supervision that made it grow from a tentative proposal into a sizable piece of research. After conferences with Work Projects Administration officials in Washington, it was planned that the Estates Survey should become a federal project sponsored by the Department of Commerce. Its general design then became the responsibility of the Commerce Department, subject, of course, to approval by the Professional and Service Division of the WPA. A transcription schedule with appendixes and a brief set of instructions were drawn up by the Department of Commerce. WPA workers were to transcribe to the schedule the specified information from estate records on file in county probate courts. Immediate supervisory responsibility was a function of WPA offices in states that elected to participate in this particular white collar project; the sponsor was to clear up technical difficulties as they arose. Actual work began in summer 1940 and within six months the transcription phase was completed in the 18 cooperating states.

The next phase also was done as a WPA project. About the time the transcription began, editing of schedules and related clerical work as well as card punching had been arranged as a WPA project in New York City. Between February and September 1941 some 125,000 schedules were processed and about 400,000 punch cards prepared, including a considerable amount of analysis and consolidation of the transcribed data. The general character of these operations had been decided upon before the project was started, and analysis forms and punch cards, designed in advance, were used.

In late December immediate responsibility for the Estates Survey was shifted from the Secretary's Office, where the sponsors of the survey had been located after the discontinuance of the Division of Industrial Economics in July, to the Bureau of Foreign and Domestic Commerce. The task of continuing the survey was delegated to the National Income Division, which assigned one of its regular staff members to the editing and card-punching phase and put two special staff members at work in New York. After completion of the New York project, further work was continued with such personnel of the National Income Division as could be assigned to it.

Early in the planning of the study it was decided to draw upon federal estate tax returns for coverage of the largest estates. The break was to be at net estates of $1,000,000. In consequence, estates in excess of this amount were excluded from the transcriptions of county probate data. Large estates were covered through a special tabulation by the Treasury Department of returns for 1928-29 and 1938-39. The form of this tabulation was generally in line with the work done on smaller estates although there was no attempt to distribute decedents geographically.

When the editing and card-punching project was completed in New York City, all records were sent to Washington for review. In planning for the remaining work such matters as the following demanded attention: the relation of mortality data to decedents for whom estates were filed; the character of the sample actually obtained; the nature of the information that should be gathered for a report; and the design of tabulations to be run from the punch cards. Because information about the specific character of estate information was scanty, it was decided to explore the data on the punch cards before deciding on the form of the final tabulations. Two such tabulations were designed and submitted to the Bureau of the Census which completed them in autumn 1943 despite very material obstacles, stemming chiefly from errors and inconsistencies on the punch cards. Specifications for the general tabulation were based on continuing study of information including results from the exploratory runs as these became available. By the middle of 1943 cost estimates had been obtained and approved. But again, unexpected difficulties with the accuracy of the punch cards developed, indicating that substantial additional outlays would be needed. When application for more funds was disapproved, tabulation as well as all other work on the survey ceased.

B OBJECTIVES

The objectives of the Composition of Estates Survey are summarized in written statements dating back to its promotional and early organizational stages. On April 19, 1940, the National Resources Planning Board wrote the state planning boards of 20 selected states as follows:

"In this study, the Department of Commerce proposes to obtain data concerning the property composition of 100,000-120,000 estates filed for probate or administration during 1928-29 and 1938-39 in the selected states representative of various regions and types of economy. The properties owned by the decedents will be classified into approximately 18 investment categories, and crossed with classes based on the size of the gross estate (wealth), size of the community, and geographical location. If it is found feasible to obtain data on the age and occupation of the decedent, it will be possible to prepare another series of relationships to investment. The study is designed to obtain data not merely on the trend of investment habits of persons of various wealth classes, but also to determine whether persons invest in securities of large or small and medium-sized corporations or vice versa. The study should also throw light on the proportion of local wealth flowing into local business and local governments in comparison with investments in enterprises outside the locality or state, and the preference of various types of investors for tangible versus intangible wealth and sub-categories of the latter."

In the draft of a letter to state WPA administrators, a variant of the foregoing explanation is included: "The analysis should cover the years 1928-29, 1938-39, thus making visible any trend in the composition of gross estates." and "The investigation will also be used as a basis for tax data study, . . ."

A letter from the Department of Commerce to the WPA Assistant Commissioner, Professional and Service Division, July 22, 1940, gives additional insight into the objectives:

"The need for going into state and local probate records for data of this character arises primarily out of the fact that existing Federal records pertain only to the wealthier decedents – Federal estates tax returns are filed only in cases where the gross estate at the time of death was $40,000 or more. In order to include the smaller and middle-sized estates it was decided to go into the records of probate and other local courts where the files usually contain records of all estates, except those involving only a few hundred dollars. The study, when completed, will furnish from (a) Federal tax records, complete coverage of all the largest estates filed in the period 1928-29 and 1938-39 and substantial coverage of the larger estates, and (b) state and local records, a sample of approximately 120,000 estates, or 60,000 for the respective periods 1928-29 and 1938-39.

The interest of the Department of Commerce in making this survey is not with dead people and their various types of properties as such. The records of estates are employed only as a convenient source of information from which to draw a cross-section of the living. It is with the investments of the latter we are primarily concerned. The transition from the dead to the living can be made only in terms of specific age groups and after careful weighting of the same. . . ."

A final quotation from a form letter sent to probate court judges in areas to be sampled, asking their cooperation in the survey, summarizes the purpose:

"The need for such information has been recognized in dealing with problems of business financing and attempts to analyze the effects of taxation on capital formation.

The study will show:

1. The preferences of different types of investors (e.g., by age groups) for tangible and intangible property and the various types of intangible property (stocks, bonds, corporate and government, etc.).
2. Trends in investment habits.
3. The extent to which wealthy persons invest in securities of large, small and medium-sized corporations.
4. The proportion of local wealth flowing into local business and local government as against investments made in enterprises or jurisdictions outside the locality of the decedent."

C SURVEY FORMS

Forms, including those for transcribing data from county court records and for processing data through the punch-card stage, center about the Composition of Estates Survey schedule (Exhibits I-A, I-B, and I-C). Although implied in the Exhibits, certain procedural matters merit attention. The schedule was prepared to serve in both the transcription and the editing and card-punching stages. Data were to be transcribed to the face of the schedule proper and the appendixes. At the next stage, information on the appendix sheets was processed so that indicated information on the reverse side of the schedule proper could be entered. The processing was done on special worksheets; as they are incidental, they are not reproduced here. Entries under 'Card' and 'Columns' on the schedule proper refer to the punch cards designed for the survey. If the decedent's estate included securities, six 80-column punch cards were to be used. If there were no securities, only the first two of the six cards were necessary. Finally, original dollar entries were rounded to the nearest $100 in processing.

Initial plans as modified by later development led to the use of nine attributes in describing decedent characteristics: state, county, date of death, filing date of first record available in county courthouse sources, net estate, age, family status and sex, occupation, and the ratio of compiled net estate to total gross estate. This net-gross ratio was used in punching cards 1 and 2, but not in punching cards 3-6. As the work proceeded, it was found necessary to plan on overpunching in some cases so as to employ the possible eleventh and twelfth positions on the punch cards. Also, to cope with a few instances where dollar values exceeded the capacity of a particular field, colored cards were resorted to. A pink card was used to carry all information ordinarily punched on the usual manila card and a green card carried the excess amount.

As may be inferred from the classes used in coding decedent characteristics, the descriptive information entered on the punch cards was extensive. Each of the 18 states was assigned a code number. Survey counties within a state were coded in accordance with their urbanization group. Thus, the counties listed alphabetically in each state were assigned numbers serially within the specified section of the total 2 digit range in accordance with whether at least part included a metropolitan area of 50,000 or more inhabitants; whether the county's largest city was in the population range of 25,000-50,000; 10,000-25,000; 5,000-10,000; 2,500-5,000; or under 2,500 inhabitants. The 1930 Census of Population was used in classifying the county of the decedent in 1928-29, and the 1940 Census in 1938-39. Date of death was coded by year over the ranges 1926-29 and 1936-39, and for unknown. Filing date was similarly coded. As many as 50 net estate classes were employed. An interval of $500 served for the $0-5,000 range; then upwards by $1,000 intervals to $15,000; by $2,500 intervals to $20,000; by $5,000 intervals to $30,000; by $10,000 intervals to $100,000; by $25,000 intervals to $150,000; by $50,000 intervals to $300,000; and by $100,000 intervals to $1,000,000. Deficit net estate classes began successively at $0, $2,500, $5,000, $10,000, $25,000, $50,000, and $100,000.

Decedents were classified by age as under 30, thence by five year intervals to 75, 75 and over, and unknown. In the two-way family status and sex code, decedents were classified by sex and whether single, married and without offspring, married and with offspring, married and with the child characteristic unknown, widower (or widow), divorced and without offspring, divorced and with offspring, divorced and with the child characteristic unknown, and unknown. The occupational code used the usual major occupational groups, modified to allow for separate classification of proprietors and partners, inactive and retired persons, housewives, and unknown. Finally, the net-gross ratio was coded so as to provide ten equal classes with breaks at 10 percent, 20 percent, etc. Estates showing deficits were put in a single eleventh class.[1]

Significant information regarding decedent characteristics was obtained

[1] The classifications employed under Items 21 through 33 on the reverse side of the schedule proper are listed in the unpublished appendix to this article, available in mimeograph form from the National Bureau of Economic Research, 1819 Broadway, New York 23, N. Y.

in the transcription process. If estate data are to be extended in estimating the distribution of property owned by living persons, the age of the decedent is very important. Family status and occupation characteristics are secondary. Noteworthy also is the emphasis given the collection of data pertaining to securities in the decedent's estate, a distinct feature of the Estates Survey. Though not an essential attribute of any acceptable general survey of estate data, it is designed to contribute materially to knowledge of individuals' investment patterns.

Further remarks about the survey forms are in the nature of constructive criticism. First, some provision should be made on the schedule proper for the date, at least the year, of death. Second, the definition of 'Total gross estate' as implied on the face of the schedule proper and as stated in the instructions deserves reconsideration. Because as a general rule only the value of insurance payable to the estate is to be found in county court records, insurance might well be listed separately but not included indiscriminately in the gross estate. Also 'Total gross estate' can hardly be stretched to include 'Cash accrued after death'. Although, on careful reading, it is apparent that this was not intended, the item would better be placed elsewhere in the schedule. It parallels in a converse sense 'Expenses after death' and should be rephrased 'Income after death'. Cash realizations on current accounts existing at the time of death should be treated as part of 'Cash at time of death'.

A third point concerns the groping and extensive nature of the detail employed under some categories. Thus, 50 net estate classes seem more than adequate. Though explainable while still exploring the general nature of decedent estate information, such detail is burdensome and costly.

The final point is technical, concerned with the punch cards. An identification number whereby any card could be sorted out mechanically should be provided. In the Estates Survey the identification number was stamped on the reverse side of the card, thereby requiring hand-sorting of the block of cards in which that of the particular decedent was included. Also, the design of the punch-card entries could be greatly improved so as to reduce the number of cards from six to perhaps three. Matters of this kind can best be referred to the technician.

Exhibit I-A

The Survey Schedule (face)

COMPOSITION OF ESTATES SURVEY

CODE BOX

State ______
County ______
Serial No. ______
Filing date ______
Net estate class ______
Age group ______
Family status ______
Occupation ______
Net-gross ratio ______

(Do not write in above space)

State ______
County ______
Agent ______
Checker ______
Estate number ______
Decedent:
Name ______ Age ______
Married or single ______ Number of children ______
Surviving tenant ______ Occupation ______

Sources: ______ Dates of sources: ______

Items	*Card*	*Columns*	*Value in Dollars*
1. Real estate, other than farms and business: Total	I	15–19	$ ______
(a) Decedent's home	I	20–23	$(______)
(b) Other	I	24–28	(______)
2. Farm and farm equipment: Total	I	29–32	______
(a) Farm land and buildings	I	33–36	(______)
(b) Farm equipment	I	37–39	(______)
3. Noncorporate domestic business: Total	I	40–44	______
(a) Real estate	I	45–49	(______)
(b) Other	I	50–53	(______)
4. Personal tangible property	I	54–57	______
5. Domestic mortgages: Total	I	58–62	______
(a) Farm	I	63–66	(______)
(b) Urban	I	67–71	(______)
6. Cash: Total	x	xxxxx	______
(a) At time of death	I	72–75	(______)
(b) Accrued after death	x	xxxxx	(______)
7. Life insurance	I	76–80	______
8. Government bonds (except foreign): Total	II	14–18	$ ______
9. Other domestic bonds	II	31–35	______
10. Capital stock in domestic corporations	II	36–40	______
11. Foreign securities	II	41–44	______
12. Miscellaneous domestic assets	II	45–47	______
13. Miscellaneous foreign assets	II	48–50	______
14. (Specify)	xx	xxxxx	______
15. Total gross estate	II	51–56	______
16. Debts of decedents: Total	II	57–61	______
(a) Mortgages and other secured debts	II	62–66	(______)
(b) Other	II	67–70	(______)
17. Compiled net estate (before expenses)	II	71–76	______
18. Expenses after death	II	77–80	$ ______

REMARKS:

Jointly owned property should be indicated by encircling.

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Exhibit I-A (concl.)

The Survey Schedule (reverse side)

Do not write in the following space

	Code	Card	Column	Value
19. (a) Federal wholly exempt obligations	xxx	II	19–22	$
(b) Federal partially exempt obligations	xxx	II	23–26	
(c) State and local obligations	xxx	II	27–30	
20. Unlisted securities	xxx	III	11–14	
21. Same, by location of issuer	1	III	15–17	
	2	III	18–20	
	3	III	21–23	
	4	III	24–26	
22. State and local bonds, by location of issuer	1	III	27–30	
	2	III	31–34	
	3	III	35–38	
	4	III	39–42	
23. Listed securities	xxx	III	43–47	
24. Same, by size of corporate issuer	1	III	48–51	
	2	III	52–55	
	3	III	56–59	
	4	III	60–63	
	5	III	64–67	
25. Same, by type of security	1	III	68–71	
	2	III	72–75	
	3	III	76–80	
26. Total corporate securities by ratio to gross estate	1	IV	11–14	
	2	IV	15–18	
	3	IV	19–22	
	4	IV	23–26	
	5	IV	27–30	
27. Wholly tax-exempt securities by ratio to gross estate	1	IV	31–34	
	2	IV	35–38	
	3	IV	39–42	
	4	IV	43–46	
	5	IV	47–50	
28. Partially tax-exempt securities by ratio to gross estate	1	IV	51–54	
	2	IV	55–58	
	3	IV	59–62	
	4	IV	63–66	
	5	IV	67–70	
29. Listed securities by industrial groups	1	V	11–14	
	2	V	15–18	
	3	V	19–22	
	4	V	23–26	
	5	V	27–30	
	6	V	31–34	
	7	V	35–38	
	8	V	39–42	
30. Total corporate securities by number of issuers	1	V	43–46	
	2	V	47–50	
	3	V	51–54	
	4	V	55–58	
	5	V	59–62	
	6	V	63–66	
	7	V	67–70	
	8	V	71–74	
	9	V	75–78	
31. Largest security block in one corporation as percent of total securities	1	VI	11–14	
	2	VI	15–18	
	3	VI	19–22	
	4	VI	23–26	
	5	VI	27–30	
	6	VI	31–34	
	7	VI	35–38	
32. Three-fourths of securities held, by number of corporations	1	VI	39–42	
	2	VI	43–46	
	3	VI	47–50	
	4	VI	51–54	
	5	VI	55–58	
33. One-half of securities held, by number of corporations	1	VI	59–62	
	2	VI	63–66	
	3	VI	67–70	
	4	VI	71–74	
	5	VI	75–78	

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Exhibit I-B

Appendix to the Survey Schedule (Sections A and B appear on the face of the Appendix; Section C appears on the reverse side)

Serial No. ....
(Do not write in this space)

APPENDIX:

County ....
State ....
Name of decedent..............................

Estate No. ....

A. List of domestic government bonds (Federal, State, local):

NUMBER OF BONDS	FACE VALUE	NAME OF ISSUING JURISDICTION	TYPE OF SECURITY	APPRAISAL OR MARKET VALUE
	$			$

B. List of foreign securities:

NUMBER OF SHARES	FACE VALUE	NAME OF ISSUER	TYPE OF SECURITY	APPRAISAL OR MARKET VALUE
	$			$

(CONTINUED ON REVERSE)

C. List of domestic stocks and bonds (other than government):

NUMBER OF SHARES OR BONDS	FACE VALUE	NAME OF CORPORATION	STATE OF INCORPORATION	LOCATION	TYPE OF SECURITY	APPRAISAL OR MARKET VALUE
	$					$

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Exhibit I-C

Instructions Accompanying the Survey Schedule

INSTRUCTIONS

A. General

Print or write data carefully and legibly.
Give all values in dollars, omitting cents.
Never leave a blank: if there is no information about a certain item, merely check, thus √

a. County: Designate jurisdiction in which estate was probated.

b. Agent: Insert the initials WPA, then write your name in full.

c. Checker: Leave blank for your supervisor to sign.

d. Estate No.: After "Estate No." put the official number assigned by the Court to each estate you transcribe to the form.

e. Decedent: Give name of decedent for reference and checking purposes. The names will not be used for any other purpose.

Age and occupation of the decedent will be obtained from other records, (e.g., death certificates). Indicate family status if it can be inferred from the will itself or from the petition for probate of the will or for letters of administration.

f. Surviving tenant: If the record shows that some property was held jointly, indicate the survivor receiving such property in this blank, and circle all items of property so held, thus: own home $5,000.

g. Dates: Select estates *filed* in 1928, 1929, 1938 and 1939, irrespective of the date of death. Enter on the respective lines the date of death, date of the first filing of the will or estate, and the dates of the main sources (such as Inventory Account, Final Account) from which data is transcribed.

h. Sources: If the estate has been closed, secure all information possible from the last complete account (Inventory Accounts, Final Account); otherwise, rely on a combination of accountings, and petitions, particularly in checking real estate. If there is no accounting or other itemized listing of the estate, obtain the information from the petition for appointment of an administrator or for letter of probate.
Wherever a copy of an estate originally filed with another court has been used, so indicate.

B. Special Instructions (Each instruction refers to the correspondingly numbered item on the transcript schedule.)

Give total for each item in column to extreme right marked "value in Dollars". Do not write on the reverse side of the transcript schedule, which is reserved for machine tabulation. The columns headed "Card" and "Column" refer to machine tabulation and should be ignored.

1. Wherever the address of the decedent or heirs is the same as that of real estate listed, the value of such real estate should be transcribed under (a) "decedent's home". The value of other real estate property should be given under (b). This item should not include farm land and farm buildings, (item 2) or real estate which is an intrinsic part of the business owned by the decedent (item 3).

   Give *gross* value of real estate. If the record gives net value (excluding mortgages) add the amount of the mortgage to get gross value. List net mortgages as a debt in 16a.

2. If the estate includes farm property or farm equipment, give the values separately, placing the value of farm land and buildings under (a), and the value of the farm equipment, farm products, growing crops, live stock, farm machinery, implements, trucks, etc. under (b).

3. Includes interest in partnerships and individually owned businesses, shops, and real estate, which are intrinsically part of the business owned by the decedent. "Domestic" as used in this form means domicile within the United States. If the estate records do not specify the location of such a business, it should be regarded as domestic.

4. Include value of automobiles, household goods, and personal effects. (See also instructions to No. 6b.)

   If there is evidence that property was bequeathed by name and no value was given, indicate this fact.

   If stocks, bonds or other securities are included here in the estate record, subtract them and list them in the appropriate lines (8 to 13). (See notes thereto.)

5. Bear in mind that mortgages in this item refer to an asset owned, not to mortgages outstanding on the decedent's real estate.

   If the distinction between farm and urban mortgages is not made in estate records, disregard subsection 5a and 5b.

   Give gross value of all domestic mortgages; if it is in doubt, give assessed value and note the fact.

   Notes receivable secured by a deed of trust of real estate belong here. Other notes receivable belong in item 12.

6. Enter cash owned by the decedent, including bank deposits and savings accounts, balances with savings and loan associations, and deposits and shares with building and loan associations. Under (a) place cash owned at time of death and under (b) income accrued after death, including wages, commissions, dividends, rebates, rents, stock rights paid as dividends (see also note to item 10) etc., received by the estate after the death of the decedent. Do not include proceeds from the liquidation of the estate here; they should be classified according to the respective asset categories (i.e., under the items before liquidation). Example: if a car is sold, place the proceeds of the sale in item 4 and not in item 6.

For real estate, when values given in various accountings differ, the sales value should be used if the real estate was sold within a year of decedent's death. But if the real estate was sold in later years, its sale price should be disregarded and the value listed in the original inventory should be used, unless this original value is obviously nominal.

7. Life insurance policies should be included if they are listed in the estate, irrespective of the beneficiary. They should be listed at *net* value, with deductions made for debts on life insurance (see 16c – "Debts of the Decedent".) If no data are given on insurance, enter a check thus ✓.

8 and Appendix A. List here all obligations of the Federal Government, of States, Territories and Possessions and any subdivisions thereof (such as cities, counties, school districts, sewer authorities, government agencies – such as the Home Owners Loan Corporation, Federal Farm loan act securities – and all others of like nature).
All domestic government bonds should be listed in Appendix B. Values are the market values as given in the estate records; if not shown, give appraisal value and state this fact. Enter zero only in case the record indicates that the securities are valueless.

9 and Appendix C. Enter value of other domestic bonds as given in estate. List such bonds separately in Appendix C. Bonds with no market value should also be included in the Appendix list, with appraisal value, if any. Enter zero only in case record indicates that the securities are valueless. In all cases, face value of bonds should be shown.
It is important to give the full name of the corporation and its location or state of incorporation, if given in the record.

10 and Appendix C. Capital stock in domestic corporations should include common and preferred stocks, as well as investment trust and stock participation certificates. Rights to stock if acquired before death belong here.
All domestic stocks should be listed in Appendix C by number of shares, type of shares (common, preferred, etc.) and location and state of incorporation of the company, if given in the record.
Values are the market values as given in the source. Stocks with no market value should also be included in the Appendix list, in which case no appraisal value should be shown.

11 and Appendix B. Foreign securities include corporate stocks and bonds and government securities.
The state of incorporation of the corporation and the legal residence of debtors determine the distinction between foreign and domestic. A list of foreign securities should be given in

Appendix B, which should likewise include foreign securities with no market value, in which case appraisal value should be shown.

12. Include in "Miscellaneous Domestic Assets" the decedent's claims against domestic debtors, including rights, royalties, pensions, government pension funds, leaseholds, judgments, trust funds, insurance claims other than life insurance, compensation claims for wrongful death, interest in other estates. If no legal residence is given for the debtor, domestic origin should be assumed.
13. Include in "Miscellaneous Foreign Assets" the decedent's claims against foreign debtors, including rights, royalties, pensions, leaseholds, judgments, trust funds, insurance claims other than life insurance, and interest in non-corporate foreign business.
14. This blank is provided for items which do not fit any of the above classifications. It should be possible, however, to list most assets in the various classes provided.
15. The total gross estate should be taken from the estate record and then checked by adding up values under items 1 to 14.
16. Enter debts of the decedent under the respective captions of (a) and (b). If the record indicates that there are no debts, a zero (0) should be written in the blank. If no data are available for these items, a check (✓) should be entered. Taxes due at time of death are regarded as secured debts. Taxes accrued after death, as indicated in accountings other than the first one, should be entered under item 18, as expenses after death. Expenses of the last illness are unsecured debts.
    Debts on life insurance should not be included if they are already deducted in computing the net value of life insurance under No. 7. If a special bond has been paid, this fact should be noted under "debts".
17. Deduct "debts" (16a, b, c) from "total gross estate" to get "compiled net estate".
18. If debt and expenses are lumped together, an attempt should be carefully made to distinguish them. If this is impossible, write in the total as "debt" in 16c and note that fact. If partial distribution of the estate has been included as administrative expense, omit item 18 and state reason why. If expenses of the last illness and funeral are not shown separately on estate records, write in as expenses and note the inclusion.

Appendices A, B, C. Under "Type of Security" give available descriptive details. (Example: "First Mortgage Gold Bond").

D PROBLEMS INHERENT IN PROBATE COURT RECORDS

General discussion of the data available in probate court records from the standpoint of use in describing the composition of individuals' property holdings is not intended here. Rather, interest is centered on certain problems inherent in the nature of probate court records and on those, in particular, about which some positive comment can be made in the light of the Estates Survey. Records reviewing the amounts and disposition of the property owned by a deceased person are on file typically in the local county court, variously designated as a probate court, court of probate, surrogate's court, or orphans' court. To gain access to the records the consent of the court judges is necessary. Judges were generally cooperative in the Estates Survey. When stumbling blocks were encountered, they took the form of objections that ranged all the way from doubts regarding the usefulness of the survey itself to a supposed lack of space for the transcription work of project employees.

The physical availability of probate court records varies from court to court, depending on filing practices. Records for an estate may be filed together in a single register or, as in New York County, in separate files for wills, administration, and accounts and transfer tax records. Relevant papers include those of the petition in connection with the first filing of the will or the estate, inventory and appraisal accounts, and the final account. If an estate is sizable, there are likely to be supplementary accountings and appraisals as well as appended court orders and revisions. The instructions for transcription called in general for reliance upon the last complete account. To be stressed, however, is that estates for which neither an account nor a tax record exists are numerous. Thus, for small estates (under $500 as in Louisiana, or those held in cash), some estates with most of the assets in jointly-owned property, estates comprised only of life insurance, and some estates of testators, inventory information is most likely to be lacking. If not missing entirely, it may be deficient, as when personal property is lumped together or otherwise incompletely reported. Sketchy returns from state WPA offices seem to indicate that the inventory of the decedent's property was quite inadequate for some 10 to 20 percent of the estate records. An additional difficulty was that as of the second half of 1940 when most of the transcription was being done, inventory records for more recently filed estates – those with first papers filed in 1939 – tended to be incomplete pending further court action. Commonly, the original petition for establishing an estate for administration gives in general terms its approximate value, though frequently details and certain types of property are omitted. Information in the original petition is often subject to substantial revision in later inventory and appraisement records.

Other questions concerning information from probate court sources pertain to dating of records and to sources for the age and occupation characteristics of the decedent. The decedent's death precedes by an indefinite interval the filing of the first probate court record. Typically, the interval is short, although it may stretch out over several years. Subsequent steps in the probating process also take different periods. Under favorable circumstances an estate can be closed in about a year. But again exceptions are very common. The general procedure in the Estates Survey was to make transcriptions of estates filed in 1928-29 and in 1938-39. In processing the survey schedules and entering the information on punch cards, the year first papers were filed and the date of death were coded for each year 1926 through 1929, and 1936 through 1939. For age and occupation probate court records are likely to prove quite inadequate. In many of the cooperating states age and occupation characteristics were collected from state or local vital statistics sources. This, in effect, became a distinct undertaking requiring close coordination with the transcription of probate court data. As it worked out, the number of cases for which age and occupation were unknown was unnecessarily large in some counties because collection and transcription were not coordinated. The percentage of survey cards with unknown age and occupation varies widely from county to county, but averages about 15.

Approximate ratios of the number of estates tabulated to deaths are intended to be merely suggestive, representing tentative findings from a pilot tabulation (of which more in Sec. G) for 4 counties. Estates tabulated ranged from 6 percent of resident adult deaths in 1938-39 for persons dying between the ages of 21 and 29 to 25 percent for the oldest age group.

Age Class of Decedent	*Estates Tabulated as % of Resident Adult Deaths*
All ages	22
21-29	6
30-44	12
45-59	19
60-74	23
75 and over	25

Furthermore, and again on the basis of fragmentary evidence, apparently about two estates were processed to the punch-card phase for every three estates for which at least some records were on file in county courthouses. The ratio varied materially from county to county in the same state and even more so among counties in different states.

By definition, the following groups were excluded from the survey: estates of minors and of the insane and those with a net value of $1 million or more. Other occasions for excluding a probated case arose from probating the estate of a nonresident of the county (this would duplicate in number, though not necessarily in property holdings, the primary filing in the home county of the decedent); probating an estate first filed in the specified years but for a person who had died before 1926 or 1936 depending on the period being covered; lack of inventory information for cases first filed in 1939 because the later records were not yet available (some attempt was made, however, to allow for this type of exclusion in arriving at the ratio suggested above); and finally, errors and other defects in the transcription necessitating rejection of the schedules. But this enumeration of particulars must not detract from the fact that lack of information in court records was the main reason a probated estate did not appear on the punch cards. Presumably, this lack of inventory and appraisement information was largely concentrated in small estates although it depended also upon the types of property in the estate.

In interpreting the percentage relation between estates on punch cards and adult resident deaths, one must take into account not only the foregoing points explaining the discrepancy between filings and cards punched but also the large number of decedents for whom no estate records were filed. This group is clearly in the majority. It encompasses decedents without property or with such small amounts or types as not to require probate action. The problem of dealing with their possible property holdings is complicated by differences, in law and in practice, among states. We shall not pursue this point here, though the various contributing factors arising from state inheritance tax legislation and the detail of legal provisions with respect to succession are mentioned incidentally. A final cause of the discrepancy between deaths and estates on cards in certain counties is probably peculiar to the Estates Survey. The sampling procedures used in covering only some of the estates filed in certain counties with numerous probated cases were not fully under control in all instances (sampling is discussed in the next section).

Attention may next be directed to the content and value of the net estate as it may be inferred from probate court sources. Seemingly, the kinds of property and their appraisements should be reasonably uniform for counties within a given state, although actual practices may introduce differences. The major contrasts, however, are among counties in different states. It is to certain of these, mainly items that have to do with the content of the net estate, that the following remarks are directed.

There is first the matter of gifts and of transfers in contemplation of death. Inasmuch as these items, whose exact definition is a moot legal question, are not part of the estate when the owner dies they would not be listed in the inventory filed for purposes of administration. However, in several cooperating states, tax records were a source. Since they generally call for data on some transfers before death, this type of property would usually be included. Owing to inconsistencies in the description of project procedure furnished by the state supervisors, it is doubtful that certain states included transfers.

Nor was joint property treated uniformly in all states – a serious limitation of the data. Instructions called for including all joint property at full value, whether held in tenancies by the entirety, by joint tenants, or as community property. In only 5 of the 18 states was it possible to follow this instruction, and of these 5 states the schedules of 2 had to be edited. The data for 4 states included only the decedent's share of joint property, but for 3 the treatment was not uniform in that the full value was posted for some types of joint property. For 3 states joint property could not be included as it was not listed in the underlying records. For 6 states it was impossible to determine accurately what the procedure was.

The value of insurance proceeds was punched on the cards whenever it was listed on the schedule. However, insurance was excluded from the items used in defining net estate; as a general rule only the value of insurance payable to the estate is available in the local court records, since this type of insurance alone is an estate asset. However, in some counties apparently all insurance on the decedent's life, irrespective of the beneficiary, was available in estate records and hence is punched on the survey cards. In states where tax records were the source of information, insurance is more fully included.

Exclusion of property outside the decedent's home state from the net estate also is a source of uncertainty and difficulty in calculating a tenable net estate. The problem requires further investigation. Certainly, as far as tax records were used in transcribing inventory information, difficulties are real enough. The simple rule in regard to situs for death taxation which was in process of development in the early 1930's – that realty and tangibles were taxable where physically located and intangibles at the decedent's domicile – never became an established continuing practice. Thus, there may or may not be double taxation; i.e., property holdings outside the decedent's home state may or may not be part of his inventoried estate as found in the tax records of his place of residence.

The foregoing remarks are intended to illustrate interstate differences in certain items that enter into net estate calculations. Other problems also exist; e.g., the exact definition of net estate. The definition may vary with the intended use of the findings. Life estates that are nontaxable as they pass to successors would not be included in a net estate calculation to be used in studying some death tax questions. However, such an interest would be included if the purpose was to estimate the property holdings of living persons.

E SAMPLING

Sampling procedures were shaped as the survey proceeded. A product of its times, the survey reflects the machinery then available for performing the field work as well as the uneasiness of the transitional period (1940) in which it was conducted. Inherent in the latter condition were a shifting in emphasis in government activities and the consequent redeployment of federal personnel that gave rise to sampling procedures that would not ordinarily have been used. Certainly, the sampling procedures made it more difficult to consolidate the information transcribed from local court and tax sources into a meaningful aggregate.

The general design of the sampling followed substantially that envisaged in the early stages of the project's promotion. As then noted:

"The Federal Trade Commission collected data on 43,512 estates from about 25 counties (in 12 states) in 1924. These data were used for the sample study of the Commission on national wealth. . . . (It proves) the feasibility of a larger project. There are about 3,000 counties in the United States. It must be possible to get a fairly representative picture of the saving habits in various income brackets, if the records of about 50 counties could be examined; and if these counties are carefully selected according to geographical distribution, rural, urban and city character."

Or as stated in the form letter to probate court judges requesting their cooperation:

"The Department of Commerce is interested in securing data on the property composition of 100,000-150,000 estates filed during 1928-29 and 1938-39 for probate or administration in selecting counties, representative of various regions and types of economy."

Because transcription of county records was done under the Work Projects Administration, the sampling procedure reflected the availability of qualified relief workers. This precluded survey activities in areas already loaded with white collar projects. Lack of suitable local labor and the smallness of a project for any one rural county also ruled out some rural counties.

Developments in the selection of survey states are summarized in a communication prepared in July 1940, and couched in 'general language':

"The figure of 120,000 estates is believed sufficiently large to provide a sample from which conclusions of national significance can be drawn. This figure has been distributed among various regions and states according to population and mortality. Practical questions of the availability of WPA labor and the adequacy of local records may, of course, introduce some bias into the sample by reducing the representation of rural areas and the South in general. But these deficiencies are readily subject to correction by weighting techniques as the data flow from the statistical machines. . . .

The gross quotas for the various states are as follows:

California, Northern	15,000	Ohio	10,000
Delaware	1,000	Oregon	3,000
Illinois	15,000	Pennsylvania	15,000
Iowa	5,000	South Carolina	3,000
Kansas	5,000	Tennessee	5,000
Louisiana	5,000	Texas	15,000
Maryland	5,000	Utah	3,000
Minnesota	5,000	Vermont	2,000
New York City	45,000	West Virginia	3,000
North Carolina	5,000	Wisconsin	10,000"

Arrangements for transcription work in Delaware and Illinois did not materialize.

Once a state's quota had been roughly set, it had to be distributed among counties. The sponsor's position in this decision is explained in a letter to a state WPA office:

"We feel that we cannot make a definite selection of counties for the operation of the project here in Washington without the knowledge of local conditions. I should like to have, of course, a sample which represents the various regions and types of communities (urban and rural) in the state. . . . On the other hand, the size of the individual operating unit is limited by the space available in various courts. In rural counties often the right type of labor is not available. In this case, only rural counties should be considered which can be reached by bus or by other inexpensive means of transportation from an urban center."

The selection of counties was further described in the July 1940 communication referred to above:

"Within each state the survey will, of course, operate only in a few counties the selection of which is designed to furnish a representative picture of the state in terms of community (urban, rural), industrial and agricultural areas, per capita wealth and income, etc. Specific advice on the selection of the sample counties was sought and freely granted by the staffs of the state planning boards, professors of economics in local universities, and various economic and sociological consultants of the WPA State office. It should be frankly recognized, however, that the selection of the sample areas has been conditioned by two very practical factors – (a) availability of qualified WPA labor in the particular locality and (b) cooperation of local officials in making their records available. It is also worthy of observation that in certain states (e.g., Pa.) some of the larger cities were specifically excluded from the survey in order to avoid too heavy an urban representation in the national sample.

In such cases the sample for the given state may not be representative for the state and therefore geographical comparison of various states may be subject to certain technical limitations which do not pertain to the national sample."

Coverage of estates filed in the four years was usually complete save for estates for which information was deficient or wanting and estates excluded by definition. In certain metropolitan areas, however, it was understood that only part of the decedent cases would be transcribed. In any event, operating procedure called for reports from the field on the number of estates filed, the number of estates yielding usable information, and, in the case of sampling, the proportion of transcribed estates in the total. These reports were prepared in most of the cooperating states and at best included county by county and year by year detail. They indicated that in most counties, and especially in counties with few estates on file, all cases were transcribed.

Dealing with counties for which only some of the cases were transcribed became difficult. Descriptions of intracounty sampling procedures, when reported, were seldom fully adequate for later use, presumably because contact between the state WPA offices that made out the summary report and project operations proper was neither direct nor continuous. Study of the reports as sent in plus consideration of counts by county and year of filing of estates on punch cards indicate that coverage could not have been complete for a considerable number of additional counties. The reason may have been intended, though unreported, sampling; more likely it was haste or some similar element in conducting project operations (only 2 of the 4 years might have been covered) or difficulties inherent in the undertaking (unusual deficiencies in estate inventory information, lack of age or occupation information, etc.). For such counties, the allowance for undercoverage could only be improvised. There was need also for special study and treatment in other instances. In one participating state, instructions stipulated that bankrupt estates be disregarded; in another, that only estates showing an appraised value of $5,000-2,000,000 be transcribed. In summary, undercoverage was to be attributed to sampling plus other factors in various and uncertain combinations, and presumably also to unknown causes.

In Table 1 the scope of the survey is shown in limited detail. Transcription was carried out with sufficient success to permit including estate information on punch cards for approximately 114,200 estates divided about equally between 1928-29 and 1938-39 and taken from filings of probate or transfer-tax records of 219 counties in 18 states.

Of the 438 county cases (two periods for each of the 219 counties), coverage of estates filed appeared to be deficient in as many as 126 instances. Deficiency was measured as the ratio of the number of estates on punch cards for a county to the estimated number had transcription been normally complete. A ratio of 1.00 implies complete coverage; any other figure means that coverage is other than normal, the result of sampling or other practices occasioning undercoverage (there were three cases of overcoverage in the sense of inclusion of estates filed in years additional to the

Table 1

Number of Survey Counties and Approximate Number of Estates Entered on Punch Cards by Region and State, Urbanization Class, and Period

Region and States	Urbanization Class	No. of Survey Counties	Approximate Number of Estates on Punch Cards *Total*	*1926-29*	*1936-39*
Northeast					
Md., Pa., W.Va.	Metropolitan	8	16,500	8,800	7,700
Md., Vermont, W.Va.	Nonmetropolitan	14	5,100	2,200	2,900
New York City	Metropolitan	4	27,700	12,700	15,000
Southeast					
La., N.C., S.C., Tenn.	Metropolitan	8	5,900	3,600	2,300
La., N.C., S.C., Tenn.	Nonmetropolitan	27	6,300	3,100	3,200
Central					
Minn., Ohio, & Wisc.	Metropolitan	11	14,200	7,300	6,900
Iowa, Minn., Ohio, Wisc.	Nonmetropolitan	29	11,100	6,200	4,900
Northwest					
Kansas & Utah	Metropolitan	3	2,300	1,300	1,000
Kansas & Utah	Nonmetropolitan	18	3,000	1,600	1,400
Southwest					
Texas	Metropolitan	10	6,100	2,600	3,500
Texas	Nonmetropolitan	76	6,000	2,900	3,100
Far West					
Cal. & Oregon	Metropolitan	6	8,200	4,600	3,600
Cal. & Oregon	Nonmetropolitan	5	1,800	1,000	800
United States (18 selected states)					
14 selected states	Metropolitan	50	80,900	40,900	40,000
16 selected states	Nonmetropolitan	169	33,300	17,000	16,300
Total		219	114,200	57,900	56,300

The regional classification, based on that used by the Department of Commerce in its reports on state income payments, except that the New England and Middle East groups are combined in a single category, the Northeast, derives from *Southern Regions of the United States*, by Howard W. Odum (University of North Carolina Press, 1936).

two in the given period). The tentative distribution for the 126 cases contained 10 'undetermined' from the five counties in the state where instructions required that transcriptions be made for estates within the net estate range of $5,000-2,000,000.

Ratio: Number of Estates on Punch Cards to Estimated Normal Number	Frequency
1.40-1.79	2
1.01-1.39	2
.80- .99	34
.60- .79	38
.40- .59	24
.20- .39	12
.00- .19	4
Undetermined	10
Total	126

The degree of abnormal coverage was calculated in several ways, the method depending upon the nature of the problem, the character of year by year counts of estates on punch cards, availability of information on estates filed, and the sufficiency of the information in field reports. In each instance a simple yet reasonable method was sought. The areas tentatively selected for individual study are indicated in the stub of Table 1. The break between metropolitan and nonmetropolitan counties is in terms of whether at least part of a given county was contained in a metropolitan area having 50,000 or more inhabitants in the 1940 Census of Population.

Table 2 reviews the distribution of the compilations among the 6 regions and provides for comparing the number of estates covered with the 1940 population of each area. (At this writing, unfortunately, adult mortality data by regions are not at hand, nor are the data for the metropolitan-nonmetropolitan division of population.) The implied rough similarity of the region by region ratios of estates on punch cards to adult population is somewhat remarkable in view of the manner in which the survey sample was obtained. It suggests that the regional sampling achieved in the survey may perhaps be fitted with some success into Odum's regional groups. Within regions, of course, the sampling of estates was concentrated in the few states selected for survey operations.

Table 2

Adult Population in 1940 and Approximate Number of Estates Entered on Punch Cards by Regions, 1936-1939

Region	*1940 Population 21 years & older* (000)	*Approximate Number of Estates on Punch Cards 1936-1939*
Total	83,997	56,300
Northeast excl. N.Y.C. (12 states & D.C.)	21,833	10,600
New York City	5,255	15,000
Southeast (11 states)	16,065	5,500
Central (8 states)	23,532	11,800
Northwest (9 states)	4,607	2,400
Southwest (4 states)	5,803	6,600
Far West (4 states)	6,902	4,400

F Character and Problems of Countrywide Estimates

Sections B-E provide a general basis for considering procedures for building from the survey tabulations to estimates for the country as a whole. Problems must be faced whether one is seeking a description of property holdings of persons in absolute or in relative terms; whether interest centers on estate data as such or on estimates for living persons; or whether one or another of the various types of component information is desired for special study. Furthermore, there is no reason to believe that the Estates

Survey sample was so evolved as to be representative in some simple manner of the several strata that may be relevant to a study of decedent estates, whether regions, urban vs. rural groupings of communities, or such other bases for classification as may be postulated.

Presumably, countrywide estimates must be in a form to show total and component property figures by size of holding for property owned by all decedents for each period and for property owned by living persons at some time in 1928-29 and again in 1938-39. In addition, broad regional and urbanization components of the countrywide estimates should be prepared. These estimates would include an indication of the composition of estates by net estate size classes with detail for persons in different age classes and such other demographic groupings as may prove feasible.

Mortality data for a given stratum (deriving from a cross-classification by region and by the metropolitan vs. nonmetropolitan characteristic) in relation to similar mortality data for the surveyed counties of that stratum would provide multipliers to be used in deriving decedent property estimates for the stratum. Age groups within a given regional-urbanization area would be used in building within each stratum. Adding regional estimates would yield countrywide estimates for decedents. The foregoing is not intended to imply that countrywide estimates might not be prepared from other strata or other additional detail within the suggested strata.

Estimates of property owned by living persons would be based on the strata estimates of property holdings of deceased persons. Multipliers in this case would relate the number of living persons to the number of deceased by age classes. Use of age classes is particularly important in this case because mortality rates differ widely. Again, addition of findings for the living in the several strata would yield estimates for the United States as a whole. It is equally possible, of course, to derive the estimates for living persons directly from county information on decedents without calculating for decedents. The sequence suggested above is based on the supposition that findings for all decedents as well as for the living are required, the more so since the former can be obtained incidentally.

The way in which the Estates Survey was conducted gave rise to certain special problems in passing from sample findings to countrywide estimates. No unusual difficulties would exist if fractional coverage was attained in transcribing records for a county, provided the sampling within the county was random and the degree of coverage known. It will be recalled from Section E that intracounty sampling seems to have been present in over a fourth of the surveyed county cases. As a majority of these 126 cases may be assumed to be the result of random sampling, only the percentage coverage actually realized need be estimated. The remaining cases, however, call for some kind of special treatment to offset the nonrandomness of the sampling process. Minnesota counties where transcriptions were made for net estates within the $5,000-2,000,000 range illustrate one type of nonrandom sampling. Here it is easy enough to omit net estates of over $1,000,000, as was done in editing the schedules. However, it is also necessary to compensate for the omission of estates under $5,000. Probably, findings from somewhat similar counties in a nearby state, Wisconsin, might be used.

A related problem concerns cases where the number of estates obtained for a county seems deficient not because of partial coverage but rather because of some peculiar deficiency in the number of estates on file in county probate courts. Thus, in certain states the number of estates filed (with adequate data) is inordinately small for estates in the smaller size classes – reflecting legal requirements and court practices. For counties in such states it may be best to splice onto the tabulations of recorded information such estimates for the smaller estates as would bring the data up to the level of coverage attained in the ordinary type of county. Despite admitted difficulties in effecting the adjustment, final estimates would be improved by the modification.

The local probate court data are for properties of adults with net estates requiring probate up to $1 million. Two groups are therefore excluded: persons with net estates in excess of $1 million and persons with net estates under probate size (including minors and such other categories as by definition were excluded). The designers of the Estates Survey planned to cover the first group by drawing on federal estate tax reports, splicing the information onto the probate court findings. Various questions arise in trying to obtain regional and urbanization classifications not included in the special tabulation prepared by the Treasury Department and concerning the definition of net estate used in the Treasury tabulation versus that of the probate court study, especially with respect to the inclusion of life insurance.

The property of persons whose estates would not appear in probate court records, at least not in sufficient detail to be included in the Estates Survey, can be estimated only roughly. The Federal Trade Commission estimate of 'Not Probated' estates (*National Wealth and Income*, 1926, p. 58) accounted for 76.5 percent of all decedent cases and 5.2 percent of total estate values. "Decedents who left no estate were presumed to have had as much property as the average for the lowest group, namely, $258 each." Included in the lowest group were estates up to $500. This suggests the extremity to which the estimator may be forced. There is, furthermore, the question of the composition of the small nonprobated estates. Components of the two types of estate may well differ. As between estimates for living and for deceased persons the importance of the noncovered group will vary. The group tends to be considerably larger for the living since younger persons typically have smaller property holdings than older and are much more heavily weighted in the living population.

The size class estimates of property owned by living persons and their major property components should check at least roughly with control aggregates established in approximate form from quite different sources. The control estimates might begin with a national wealth total. Successive adjustments to an estimate of the gross value of property owned by individuals would be needed. The gross property figure for individuals, excluding life insurance, would then be tested against the sum of independently prepared estimates for its components. The list of components should follow generally the items specified in the stub of the Composition of Estates Survey (see Exhibit I-A). Such control data would supply checks, item by item, and in the aggregate for the probated estates figures.

G Tabulation Plans

The difficulties in designing tabulations for the Estates Survey data were numerous. The uncertain character of the intracounty sampling implied a need for area detail that might otherwise be excessive. A second basic complicating factor arose from the varying proportion of cases with unknown age. The unknowns could be determined only by tabulating the cards, yet some knowledge of their incidence was requisite before the general tabulations could be designed. Determining in a suitable manner the number and limits of the net estate and age classes also presented difficulties. Definitive classification patterns could not be taken over from preceding studies of individuals' property holdings, for they contain only sketchy evidence; moreover, the stress on estate composition in the Estates Survey, especially with respect to intangible property, appeared to warrant extra net estate detail for the larger estates. Nor were earlier studies helpful in establishing the age classes, for age was generally disregarded.

As work on the Estates Survey progressed, it was decided to make two preliminary runs of the cards before attempting any comprehensive tabulation. The first was a frequency count of cases cross-classified to yield a minimum of basic detail – the number of estates by county, by summary net estate class, and by year of filing of first probate papers for cases with known age. For the unknown age cases, the detail was reduced by eliminating the cross-classification by summary net estate classes.

The second preliminary run dealt individually with 4 county groups having somewhat similar numbers of decedent estate cases. In metropolitan areas as defined here were Baltimore and Howard Counties, Maryland, with about 1,400 estates, and Multomah County, Oregon, with some 1,800 estates. As nonmetropolitan areas Brown and Sheboygan Counties, Wisconsin, with 1,300 estates, and Sonoma County, California, with about 1,200 estates were chosen. The character of the pilot tabulations for each area may be indicated under three headings. *Part A:* Tabulation from cards 1-6 of the number of entries in each field and total amounts, by detailed net estate classes and by detailed age classes for 1928-29 and 1938-39. *Part B:* Tabulation from cards 1 and 2 of the number of entries in each field and total amounts, by summary net estate classes, by summary age classes, and by family status and sex classes for each period, omitting cases of unknown family status and unknown age. *Part C:* Tabulation from cards 1 and 2 of the number of entries in each field and total amounts, by summary net estate classes, by selected age classes, and by occupation classes for each, omitting cases of unknown age.

Since some interest may attach to the classifications employed in the preliminary runs, they are summarized.

NET ESTATE CLASSES ($000)

Detailed	*Summary*
5.0 and over (deficit)	Deficit
.0 to 5.0 (deficit)	
.0 to .5	.0 to .5
.5 to 1.0	.5 to 2.5
1.0 to 2.5	
2.5 to 5.0	2.5 to 10.0
5.0 to 10.0	
10 to 25	10 to 50
25 to 50	
50 to 100	50 to 250
100 to 250	
250 to 500	250 to 1,000
500 to 1,000	

AGE CLASSES (years)

Detailed	*Summary*	*Selected Age Classes*
21 to 30	21 to 30	21 to 45
30 to 35	30 to 45	45 to 60
35 to 40	45 to 60	60 and over
40 to 45	60 to 75	
45 to 50	75 and over	
50 to 55		
55 to 60		
60 to 65		
65 to 70		
70 to 75		
75 and over		
Unknown		

FAMILY STATUS AND SEX CLASSES

Male	*Female*
Single	Single
Married	Married
Widower or divorced	Widow or divorced

OCCUPATION CLASSES

Agricultural	Proprietors and partners
Managerial and officials	Inactive and retired persons
Clerical, sales and kindred workers	Laborers and unskilled occupations
Craftsmen, foremen and skilled occupations	Housewives
Operators and semi-skilled occupations	Professional and semi-professional
Service occupations	Unknown

Prepared about a year later and after most of the preliminary runs had been completed, the comprehensive tabulation was designed with some idea of what it might show. In general, it followed the exploratory runs for the 4 county areas. As expected, however, tabulation detail could be simplified.

A first point in reviewing the plans for comprehensive tabulations concerns the 17 county groups. In the Southeast, Northwest, Southwest, and Far West were the 8 metropolitan and nonmetropolitan groups noted in Table 1. In the Central region there were 4 groups, as Minnesota was tabulated separately because net estates of less than $5,000 were omitted. The Northeast was divided into subgroups because of the disproportionate representation a combined tabulation would have entailed, e.g., there were 3,500 estates on cards for nonmetropolitan West Virginia and only 1,600 for Maryland and Vermont combined. Consequently, it had 5 tabulation groups: 3 metropolitan county areas in Pennsylvania and West Virginia, Maryland, and New York City, respectively, and 2 nonmetropolitan areas in Maryland and Vermont, and West Virginia, respectively.

Bearing upon the determination of county groups established for tabulation purposes were decisions to eliminate certain counties and to classify counties in the 1928-29 tabulations as well as those for 1938-39 according to metropolitan vs. nonmetropolitan characteristics based on 1940 Census information. In Pennsylvania three counties were dropped because 1938-39 survey coverage was extremely inadequate (7 cases as against more than 1,800 in 1928-29). One California county was omitted for similar reasons. In Tennessee, 14 of the 15 survey counties were dropped because so few estates were on cards – about 375 cases in the two periods – that problems of evaluation were impossibly difficult. Other omissions were of minor importance, including four essentially rural counties in Kansas, North Carolina, and Texas. Uniform classification of counties by their metropolitan vs. nonmetropolitan character as in the 1940 Census basis altered the 1930 classification of 16 counties. In each instance the change was from nonmetropolitan to metropolitan, reflecting growth of the largest city lying at least in part in these counties to over 50,000 inhabitants. The number was distributed among states as follows: Texas, 6; North Carolina, 4; South Carolina, 2; Ohio, 2; Wisconsin and California, 1 each.

The second point is the simplification of the comprehensive tabulation used in runs for 1928-29 age classes and generally for the cross-classifications by sex and marital status and occupation. The immediate purpose was to compress headings so as to require only one machine run each, instead of two, of cards 1 and 2. Actually, however, the subdivisions of major items on these cards were often left blank in the transcription schedule (see Exhibit I-A). Consequently, it seemed futile to pursue the component detail in the cross-classification by sex, marital status, and occupation. Accordingly, 14 items were selected for tabulation of major fields from cards 1 and 2:

Real estate, other than farm and business, total
Farm and farm equipment, total
Noncorporate domestic business, total
Personal tangible property
Domestic mortgages, total
Cash at time of death
Government securities, total
Other domestic bonds
Capital stock, domestic
Foreign securities
Miscellaneous assets, domestic
Miscellaneous assets, foreign
Total gross estate
Compiled net estate

The final point concerning the comprehensive tabulations deals with revisions in characteristic classifications and simplifications in tabulation runs. Detailed net estate classes as established for the exploratory pilot tabulations were used throughout after the two deficit classes had been combined into a single group. Age classes were revised to fit more realistically the actual frequency patterns for decedents with probated properties (on the basis of pilot tabulation runs, about a third of the cases seemed to be in the classes under 65). Finally, tabulations for 1928-29 were reduced in number because the early period was less interesting.

Plans for the comprehensive tabulation of estate information for each of the 17 areas are indicated in general terms below.

Part A

Tabulation from cards 1-6 of the number of entries in each field and total amounts, by detailed net estate classes:

1 In total only for all age groups, 1928-29
2 In total and by consolidated age groups, 1938-39

Part B

Tabulation from cards 1 and 2 of the number of entries and total amounts in selected major fields by detailed net estate classes, and

1 By consolidated age groups, 1928-29 (1938-39 is covered in Part A)
2 By summary age groups
 a) By sex only, 1928-29
 b) By sex and family status, 1938-39

Part C

Tabulation from cards 1 and 2 of the number of entries and total amounts in selected major fields by detailed net estate classes, by occupation, for all age groups and for age groups under 65 combined, 1928-29 and 1938-39.

Net estate, age, and family status and sex classification are shown. The occupation classification was the same as that employed in the pilot tabulations for the 4 county areas.

NET ESTATE CLASSES ($000)		AGE CLASSES (years)		FAMILY STATUS AND SEX CLASSES	
		Consolidated	*Summary*	*Male*	*Female*
Deficit	10 to 25				
.0 to .5	25 to 50	Under 45	Under 65	Single	Single
.5 to 1.0	50 to 100	45 to 55	65 to 75	Married	Married
1.0 to 2.5	100 to 250	55 to 65	75 and over	Widower or divorced	Widow or divorced
2.5 to 5.0	250 to 500	65 to 75	Unknown	Unknown	Unknown
5.0 to 10.0	500 to 1,000	75 and over			
		Unknown			

H Derivation of Mortality Aggregates

As noted in Section F, property ownership estimates for all deceased persons depend upon mortality data, and for living persons upon mortality plus population data. Here we discuss only the requisite mortality data. Although special problems arise in connection with population figures, we do not attempt to deal with them. Suffice it to say that the general classifications by region, sex, and age would follow those reviewed in connection with mortality data. Also, work would be substantially reduced if the estimates for the deceased can be accepted in deriving property estimates for the living.

Four sets of mortality data were needed to extend Estates Survey findings to all decedents, two each for 1928-29 and 1938-39. For each period it was necessary to have mortality data for the survey counties of each regional-urbanization stratum as well as for all counties in the stratum. The later period illustrates the problems involved. However, estimates for 1928-29 would necessarily be more tenuous; e.g., 4 states were missing from the death registration areas in 1928 and 2 in 1929. Also, county detail is less for the earlier period and the data tend to be in terms of place of death only rather than of both residence and place of death.

Decedent data suitable for these purposes were not directly available in vital statistics publications and tabulations for 1938 and 1939. Figures on deaths of adults residing in the given area, county and state, paralleling residence for probate purposes, by age classes, sex, and race (white and other) were essential. For estimates of this kind a tortuous sequence of calculations was evolved which need only be suggested at this point.[2] In simplified form, three steps yield estimates for Estates Survey counties as well as for the strata they are assumed to represent.

1) Total deaths of residents as found in vital statistics records are adjusted so as to prorate deaths in resident institutions over statewide areas.

2) The adjusted total is distributed among sex and race groups using data by residence if available or by place of occurrence.

[2] Part II of the unpublished appendix may be consulted for a review of the methodology used in deriving 1938-39 mortality figures for regional-urbanization universes.

3) Minors are eliminated from the foregoing estimates and adults allocated to age classes, partly on the basis of residence data though considerable use of occurrence data is also necessary.

Given mortality data for all counties of a regional-urbanization stratum and similar data for the sampled counties in the stratum, ratios can be calculated for raising probated estate findings for the sample counties to universe estimates. The universe estimates for the various geographical groups are then added to yield totals for the country. As sampled counties are combined into a sample aggregate for a regional-urbanization stratum, allowance must be made for intra-county sampling of probate cases.

Presumably, the universe estimates of property must be by age classes so that it will later be possible to develop estimates for the living. This would suggest that universe estimates for decedent property ownership be built up by age classes. The process could be carried out also at the level of sex categories within age classes; racial subdivisions, however, could not be used since the Estates Survey did not include this category. From the work done on the Estates Survey, there is no positive statement to make in this connection.

I Control Totals

For control and confirmation of over-all totals based upon decedent estate data it is desirable to have independent estimates of total private property. In all likelihood control data would be much more accurate for total property and by major types than the figures based upon estate information. Control aggregates for living persons are essential whether interest in the size distribution information derived from estate records centers on absolute amounts or on percentage relationships. In connection with universe estimates for decedent properties, however, they would be of little use.

Control totals would be benchmarks against which both the aggregate and the property type composition of the estimates from decedent records could be checked. On *a priori* grounds the control figures for all types of property might well substantially exceed the estimates from decedent records. Gifts, life estates, and joint property ownership 'by the entirety' are factors limiting the amounts of property transferred after death. Nonreporting and undervaluation also tend to restrict the accountings for decedent estates. The same kind of factors may tend to affect different types of property differently. Personal tangible property, for example, may well be undercovered in the estimates from estate information, mainly because of nonreporting and undervaluation. Nor is there reason to believe that gifts, life estates, and joint tenancies affect all property types equally. Joint tenancies, for example, might well lead to underrepresentation of home-ownership. Estimating property holdings for the living from decedent records is relatively unexplored and treacherous — another reason for control aggregates.

While the general nature of the control totals might be suggested in qualitative discussion, it seems much more direct to proceed in terms of figures. Objection arises from possible misunderstanding of purposes to be served by the figures; e.g., the forthright statement that, as presented here, the estimates of total wealth and property are introduced merely as illustrating techniques; in no way are they intended to be definitive final estimates (Table 3).[3] These materials are from files of studies prepared during 1942-43 in connection with the Estates Survey and therefore cannot draw upon subsequent studies or estimates. The given wealth total is adjusted and modified to yield the total value of property owned by individuals. Component property items are then determined separately. Since together the components should equal the estimated value of all property, suitable adjustments in the total or the components, or both, may be required.

Table 3

Trial Estimates of Total Wealth and Property Owned by Individuals, by Type of Property, 1938-1939 (billions of dollars)

		Value of Total Wealth or Property (1)	% of Gross Property in Column 1 (2)
1	Total national wealth	380	
2	a) Public	–56	
3	b) Nonprofit institutions	–20	
4	Unadj. net property of individuals	304	
5	a) Valuation adjustment: capital assets & inventories to market value of equities	–19	
6	b) Net equities in life insurance companies	–22	
7	c) Holdings of government securities	19	
8	Net property of individuals, excl. life insurance	282	
9	Debts of individuals, mortgage & other	60	
10	Gross property of individuals, excl. life insurance	342	100
11	Real estate: nonfarm & nonbusiness	77	22
12	Farm & farm equipment	41	12
13	Noncorporate business, excl. farming	23	7
14	Personal property	46	13
15	Mortgages	11	3
16	Cash	40	12
17	Government securities	19	6
18	Other domestic bonds	17	5
19	Corporate stock, domestic	61	18
20	Other, incl. unsecured loans to others	7	2

[3] The unpublished appendix includes working notes that explain Table 3.

The trial estimates are subject to improvement in definition as well as in procedure. In both regards they are intended to be merely suggestive. A perplexing item is that for individuals' 'cash'. Perhaps its inclusion (line 16) under property ownership would presuppose the addition of an identical cash figure in the transition from total real wealth to total individuals' properties. The treatment would then parallel the treatment of government securities (lines 7 and 17). For the nonprofit institution figure, the question of adequacy of estimation may well be raised. The two cases illustrate the limitations of the trial estimates.

Table 4 represents the outcome of tentative work on insufficient evidence. The crude estimates indicate roughly what thorough work on adequate basic data might produce. Columns 1 and 2 are rough generalizations from summary data for the 4 county areas in Maryland, Wisconsin, Oregon, and California covered in the preliminary tabulations (see Section G). From average property in estates of decedents in 5 age groups, the property owned by the living was approximated (col. 2). Column 1 follows from the arbitrary assumption of the $350 average for decedents with no probated estates. The distribution of the total in this case fol-

Table 4

Crude Trial Estimates of Total Property of Adults Based on Decedent Estate Data, 1938-1939 (billions of dollars)

Line no. in Table 3		Estimated Property of Adults: Not in estate groups ($350 net each) (1)	In estate groups up to $1 million (2)	In estate groups over $1 million (3)	Total (4)	% of Gross Property in Col. 4 (5)
8	Net property of individuals excl. life insurance	25.0	92.6	19.4	137	
9	Debts of individuals, mortgage & other	16.0	8.9	0.7	26	
10	Gross property of individuals excl. life insurance	41.0	101.5	20.1	163	100
11	Real estate: nonfarm & nonbusiness	16.8	24.1	1.1	42	26
12	Farm & farm equipment	3.3	8.8		12	7
13	Noncorporate business, excl. farming	2.5	2.7	0.2	5	3
14	Personal property	3.3	2.7	0.2	6	4
15	Mortgages, domestic	1.2	5.4	0.3	7	4
16	Cash	7.8	14.2	1.4	24	15
17	Government bonds		5.4	4.5	10	6
18	Other domestic bonds	0.8	5.4	0.9	7	4
19	Capital stock, domestic	1.6	24.8	10.3	37	23
20	Unclassified, misc. & foreign assets	3.7	8.0	1.4	13	8

lows roughly the evidence from the 4 county areas as to types of property held by decedents in the $0-500 net estate class. Column 3 was derived from the special Treasury tabulation of large estates. Coverage of the special tabulation was first built up to the universe implied in published data for estate tax returns. The adjusted decedent estate figures were then raised by age classes to the level for the living population.

The foregoing brief explanations warn against acceptance of Table 4 except as highly tentative. Some interest, nevertheless, may attach to comparing column 4 in Table 4 with related items in Table 3, despite numerous limitations of the data. First, totals in Table 3 are about double those in Table 4. Second, personal property, noncorporate business, and farms are relatively low in the estimates from estate records. Although such very low positions for the second and third property types may be due in part to the unrepresentativeness of the 4 county areas, that for personal property is probably inherent in decedent estate records. Inspection of the percentage distribution suggests the possibility — perhaps not too unreasonable in view of the character of estate records — of combining lines 11 and 12 on the one hand, and lines 14 and 20 on the other, for comparative purposes.

Undoubtedly, a considerable share of the discrepancy between the control estimates and those from estate records can be explained in terms of devices employed to avoid death taxes. According to federal gift and estate tax returns, for example, reported total gifts have annually been about a fifth of gross estates, net of debts and insurance. If this fraction holds for estates of all sizes — probably not as unrealistic an assumption as may first appear — the amount involved is substantial indeed. Long term trusts established to avoid taxation on estates of persons enjoying life interests also deserve special mention. This device for avoiding death taxes means that from a fourth to a half of inherited property in estates of over $60,000 may in effect be transferred without appearing in decedents' estates of every second generation.[4] This too would be a substantial factor in explaining the difference. Partial coverage and undervaluation in estate records and probable undercoverage of jointly owned property also must be mentioned though their quantitative significance is unknown. In these several factors explanation of a half or more of the difference may possibly be found.

A concluding comment concerns the general desirability of variant wealth aggregates in a form showing total and component property holdings of individuals. There is much to recommend this as a regular practice. Such estimates are certainly necessary to evaluate size class data from compilations of estate records or from direct surveys of property that may

[4] H. M. Groves, *Financing Government* (Holt, 3d ed., 1950), p. 247.

possibly be forthcoming. Significant also is the fact that construction of a wealth aggregate via individuals' property ownership could be a useful control upon wealth estimates relating to real assets. In numerous contexts, furthermore, property estimates are preferable to wealth estimates as such. The individual must generally appraise his position in terms of property of all kinds, not merely in terms of his tangible assets. Exploitation of this line would not be confined to the all inclusive aggregate and a few major subdivisions, such as are used here. It seems obvious that detail also will be in demand once the estimation process is systematized and estimates are put on a fairly firm basis.