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**PARTICIPATION OF WOMEN IN UNITED STATES AGRICULTURE**

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**Issue:**

1. The 1992 Census of Agriculture reported that there were 145,156 female-operated farms in the United States. This number represents 7.5 percent of all farms in the country and has been increasing. Henry A. Wallace, United States Secretary of Agriculture in the 1920's said, "Women make a more important contribution to agriculture than they do to any other single industry" (Tanner 1995). The interesting question is, do the numbers support this statement or is there something lacking in the numbers?

**Background:**

2. The census of agriculture is the leading source of statistics about the United States agricultural production and operator characteristics. It is also the only source of consistent, comparable data at the county, State, and National levels. The 1997 Census of Agriculture is the 25th in the series with the first being in 1840 as part of the decennial census. From 1840 to 1950, a United States agriculture census was taken as part of the decennial census. Separate mid-decade censuses of agriculture started in 1925 with the current timing established in 1982 to be a 5-year cycle collecting data for years ending in two and seven.

3. The census of agriculture defines the term "operator" as the person who operates a farm, doing either the work or making day-to-day decisions about such things as planting, harvesting, feeding, and marketing. The operator may be the owner, a member of the owner's household, a hired manager, a tenant, a renter, or a sharecropper. Only one person is counted as the operator. If it is not clear who is in charge, then the oldest or most senior person involved with the operation is considered the operator. Historically for census purposes, the number of operators has been the same as the number of farms. The census of agriculture began collecting data on female operators as part of the 1978 Census of Agriculture.

4. Now that we know how the U.S. census of agriculture defines a farm operator, we can review some of the numbers and develop a profile of female operators in American agriculture. As the following two charts illustrate, the total number of farms decreased by nearly 15 percent from 1978 to 1992 (Chart 1), while the percentage of farms

operated by females has been increasing (Chart 2). Does this mean that more women are entering into agriculture and making this their new occupation, or does it mean something else? If you look at the age of operators by gender (Chart 3), it shows that 36 percent of female farm operators are 65 years of age or older, with 25.7 percent being more than 70 years of age. These numbers probably illustrate that as the husband ages or dies, the wife takes control of the farm.

5. While female-operated farms represent 7.5 percent of all farms, they only represent 3.1 percent of the value of agricultural products sold and control 4.7 percent of all the land in farms.

6. Women are best represented on livestock farms, and especially with livestock speciality operations such as goat or horse farms. They also tend to manage smaller farms in terms of both size and sales. As an example, only 19.8 percent of women-operated farms had sales of more than \$25,000 as compared to 38.7 percent of their male counterparts.

7. Although women operators tend to run smaller, more specialty operations, they are more likely to own their operation. Nearly 80 percent of women operators fully own their farm or ranch, as compared to 56 percent of the men (Chart 5). Farming is the principal occupation of 50.6 percent of the women-operated farms as compared to 55 percent of the men.

#### **Comparison of United States - Canada / Census of Agriculture Data on Female Operators:**

8. The Canadian census of agriculture has a similar definition of a farm operator to the United States census; however, Canada collects data on multiple operators for any single farming operation. By capturing information on multiple operators, Canada's profile of women's role in agriculture is far different from their southern neighbors.

9. Results of the Canadian 1996 Census of Agriculture showed that out of the country's 276,550 farms, totaling over 385,610 farm operators, more than one quarter of the operators were women. Less than two-thirds of the farms were run only by men. Women ran the operations on 5 percent of farms, while the remaining 30 percent were operated by male-female teams. While the absolute number of women operators in Canada declined by 3 percent between 1991 and 1996, their proportion of total operators remained virtually unchanged. Also, the proportion of women who were operating a farm alone increased during the past five years. In 1996, 13 percent of the female operators ran their farm business by themselves, up from 10 percent in 1991. The use of the multiple-operator concept in the Canadian census of agriculture illustrates a far greater participation of women in agriculture as compared to their United States neighbors. In addition, 5 percent of Canada's farms are run by three or more operators.

10. In 1996, women in Canada were involved, either by themselves or with partners, in running 95,815 farms--just over one-third of the total. Women's involvement in over one-third of the farms in Canada is a sharp contrast to the 7.5 percent as shown in the United States. The difference in collecting data on multiple operators in the census is the major contributor.

11. A recent survey by Rockwood Research of U. S. farm women showed that one out of every four farm women view themselves as managers in the farm operation (Chart 6). Forty-one percent see themselves as assistants to their husbands and 34 percent are silent partners. The results of this survey are more in line with the data produced from the census of agriculture in Canada using the multiple-operator approach, rather than the data from the U.S. census of agriculture collecting data on only a single operator.

#### **Comparison to Other Sectors of the Economy:**

12. The 1992 Economic Census of the United States showed that there were 5.9 million women-owned businesses other than "C" corporations (those with over 35 shareholders); this represents 34.1 percent of all firms in the United

States. Total receipts for these women-owned firms were \$643 billion or 19.3 percent, of all receipts in the United States. Since 1987, the number of women-owned firms has increased by 1.8 million, or 43 percent, and the receipts by 131.3 percent.

13. Looking at “C” corporations, over 517 thousand were women-owned. This number represented 26 percent of the total “C” corporations. Receipts for these firms were \$932 billion or about 9 percent of the total receipts for “C” corporations.

14. Comparing agriculture to the other sectors of the United States economy, it would appear that the percentage of women’s involvement is the least of any sector based on census data. This is a big change from Henry Wallace’s words quoted in the opening issue statement. Also, the percentage of sales in agriculture by women is the least of any sector. While the data seem to show that agriculture may be the most male-dominated profession in America, there are many questions about whether this portrayal is truly representative of women’s role in farming. This also brings into discussion whether the single-operator concept as measured by the census has accurately measured changes in society.

#### **Role of the Census of Agriculture:**

15. The traditional concept of a single-farm operator and an independent farm unit has been the basis for defining agriculture production units and for counting farms throughout the history of the census of agriculture. In recent decades this concept has not served as well as it once did, when almost all farm operators and their families were farm residents and obtained almost all of their income from farming. Large-scale production agriculture has become increasingly organized and controlled. Because of this, current agriculture structure is not well measured by treating each farm as if it were a separate localized entity with a single decision-making operator who takes the risk, bears the costs, and receives the income from the farm operation.

16. Most farms and ranches still fit within this concept quite well, but many larger operations do not. Large-scale family farms are often operated as multi-household partnerships with shared investments and decision making. Spouses on family farms are frequently equal or at least substantial participants in the operations as well. Landlords, both within and outside the immediate or extended family, frequently have sizeable shares in the investment, costs, and income of the operation. Thinking of the farm as a contiguous local entity, ascribing farm income to a single operator and defining demographic characteristics in terms of a single individual do not accurately describe such operations. The 1992 Census of Agriculture showed that about 43 percent of all farms are not single-operator establishments. Combine this number with the unknown estimate of additional espousal or multi-household participation in farm operations and clearly the single-operator concept becomes invalid.

17. The problems involved in the single-operator concept are easier to identify than rectify, as there are many other interested organizations which constantly seek to add questions on the census report form to address important concerns as well. For example, many people would like to see the census collect information on the role of integrators and contractors. By restricting the census form to collect data for only one operator per farm, the census does not collect data on integrator or contractor involvement on these farms. This not only seriously affects the quality of the data reported for those operations, but also results in an understatement of concentration and control for contracted operations. This is but one example of the competing issues that must be weighed when considering any and every redesign of the census questionnaire.

#### **Conclusion and Recommendation:**

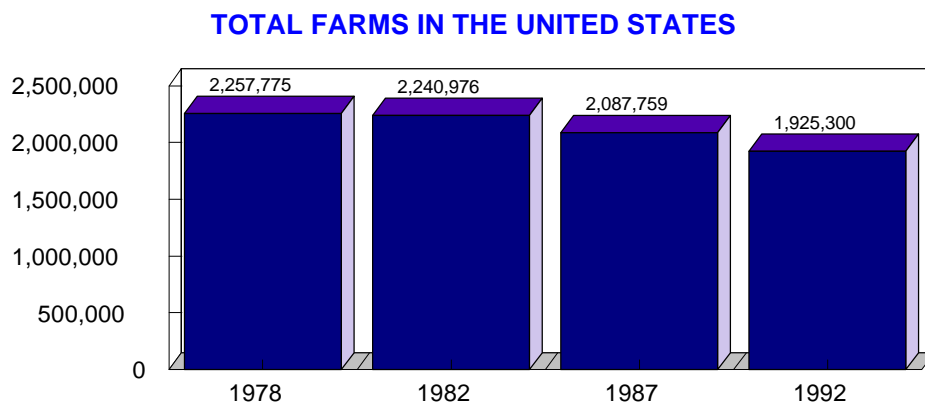
18. The space available on the census of agriculture report form is extremely limited. Any additions to the reporting burden will most likely not be approved unless compensating deletions can be identified. Statistics Canada

implemented the ability to report additional operators in their 1991 Census of Agriculture. As a result, the number of female farm operators rose immediately from 3-4 percent in the previous census, to 26 percent in the 1991 census. The 1996 Census of Agriculture report form for Canada provides two additional whole pages on the form to collect data on up to three operators. A similar type of proposal for the United States agricultural census report form would definitely require some types of trade-offs.

19. Complete statistics on ownership, operational control, and women’s participation in the agriculture sector will be a major undertaking in the census of agriculture program. This will require transition from a single-farm and single-operator concept to a broader concept of involvement. This expanded involvement will require that additional operators be involved in the day-to-day management of the farm. This will require a redesign of the census report form to capture only additional operators included in major management-decisions on the farm, while avoiding inclusion of persons whose participation in the farm operation was limited to what amounts to unpaid labor.

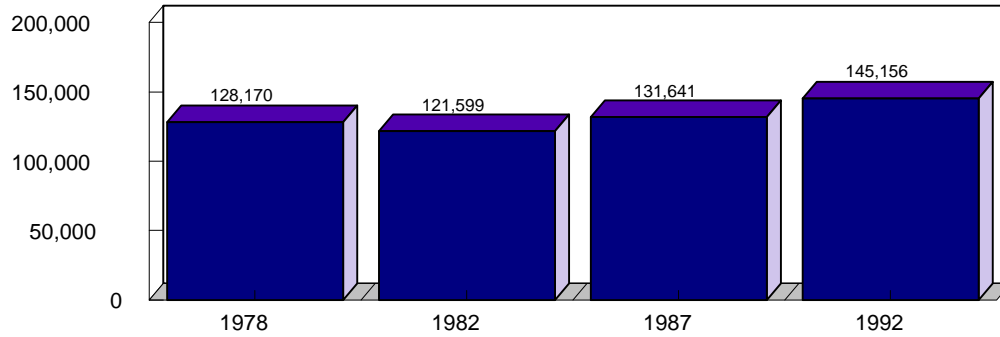
20. The recent transfer of the census of agriculture program from the Bureau of the Census to the National Agricultural Statistics Service (NASS) now finally consolidates, within one Federal agency, the agricultural statistics program for the United States. This transfer occurred too late to make any significant changes to the 1997 Census of Agriculture. Looking into the future, the consolidation of the census of agriculture into NASS provides significant opportunities to eliminate duplication and redesign a census program to address new data concerns necessary to serve the needs and interests of all members of the agriculture community. A redesign of the census program to provide expanded data on the participation of women in United States agriculture will require a major support effort of interested groups to promote and build support for including new data items. Throughout the census process, NASS will consult and work closely with its Advisory Committee on Agriculture Statistics and other organizations for various redesign decisions. The purpose of this involvement is to ensure key issues covering new data needs on agriculture are reviewed to minimize respondent burden and provide useful, high-quality data.

21. Re-engineering the census of agriculture program to provide data on multiple farm operators and thus providing more data on women’s participation in agriculture should be a top priority for the 2002 Census of Agriculture.



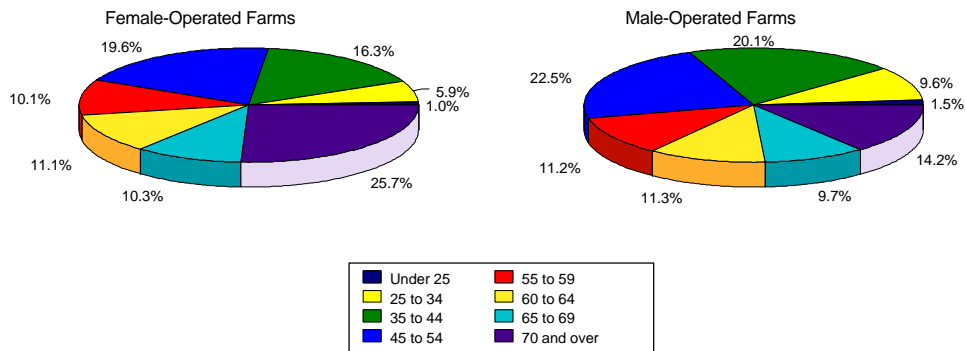
Source: 1992 Census of Agriculture  
Chart 1

### FEMALE-OPERATED FARMS IN THE UNITED STATES



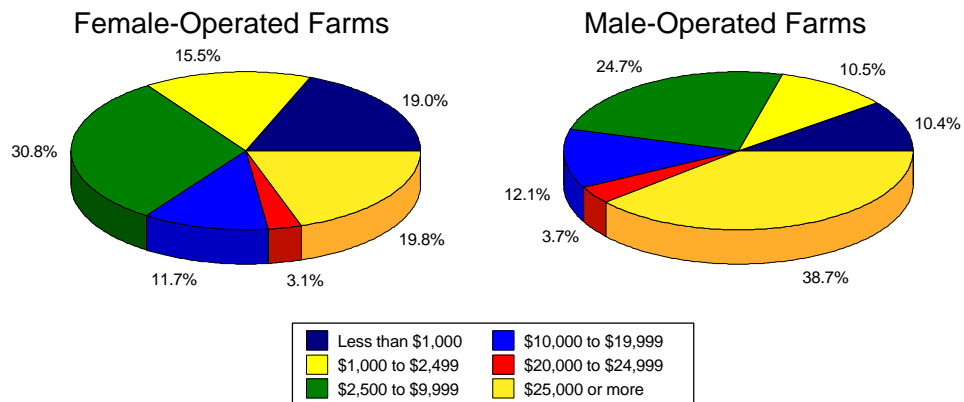
Source: 1992 Census of Agriculture  
Chart 2

### AGE OF OPERATOR BY GENDER



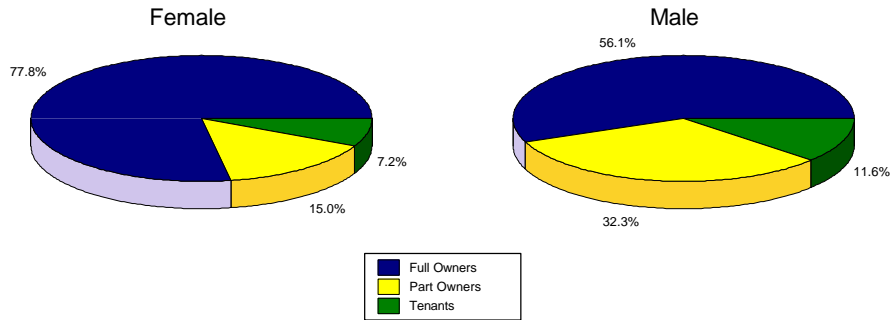
Source: 1992 Census of Agriculture  
Chart 3

### FARMS BY VALUE OF SALES



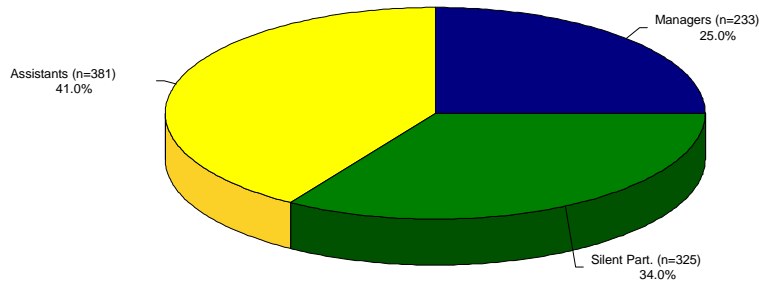
Source: 1992 Census of Agriculture  
Chart 4

### TENURE OF OPERATOR



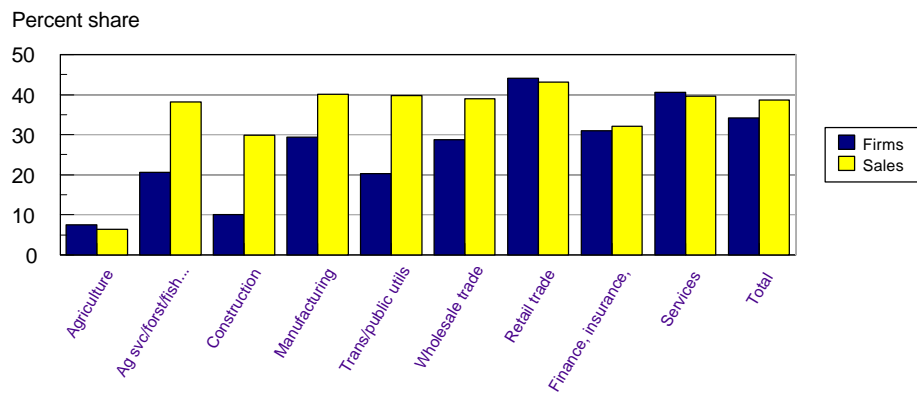
Source: 1992 Census of Agriculture  
Chart 5

### THREE TYPES OF FARM WOMEN



Based on a cluster analysis of 34 psychographic questions.  
Source: Rockwood Research - Top Producer April/May 1997  
Chart 6

### WOMEN-OWNED BUSINESSES/FARMS



Source: 1992 Economic and Agriculture Censuses  
Chart 7

| <b>SELECTED CHARACTERISTICS OF FARMS<br/>BY SEX OF OPERATORS: 1992 and 1987</b> |                       |                         |             |
|---|-----------------------|-------------------------|-------------|
| [For meaning of abbreviations and symbols, see introductory text]               |                       |                         |             |
| <b>Characteristics</b>  |                       | <b>Operators by sex</b> |             |
|   |                       | <b>Female</b>           | <b>Male</b> |
| <b>FARMS AND LAND IN FARMS</b>  |                       |                         |             |
| Farms number,   |                       | 145,156                 | 1,780,144   |
|   | 1<br>9<br>9<br>2      |                         |             |
|   | 1987                  | 131,641                 | 1,956,118   |
| Land in farms, acres,   | 1992                  | 44,907,772              | 900,623,734 |
|   | 1987                  | 39,890,761              | 924,579,864 |
| <b>1992 FARMS BY SIZE</b>   |                       |                         |             |
| 1 to 9 acres  |                       | 22,124                  | 144,372     |
| 10 to 49 acres .  |                       | 39,835                  | 347,876     |
| 50 to 139 acres   |                       | 35,640                  | 409,415     |
| 140 to 219 acres  |                       | 15,896                  | 217,732     |
| 220 to 499 acres  |                       | 17,369                  | 315,742     |
| 500 acres or more .   |                       | 14,292                  | 345,007     |
| <b>1992 OWNED AND RENTED LAND IN FARMS</b>                                      |                       |                         |             |
| Owned land in farms   | farms                 | 134,670                 | 1,573,725   |
|   | acres                 | 32,003,964              | 508,691,194 |
| Rented or leased land in farms  |                       | 32,236                  | 781,328     |
|   | f<br>a<br>r<br>m<br>s |                         |             |
|   | acres                 | 12,903,808              | 391,932,540 |
| <b>TENURE OF OPERATOR</b>   |                       |                         |             |
| Full owners .farms,   | 1992                  | 112,920                 | 998,818     |
|   | 1987                  | 104,345                 | 1,134,202   |
| Part owners .farms,   | 1992                  | 21,750                  | 574,907     |
|   | 1987                  | 17,968                  | 591,044     |

| Characteristics   | Operators by sex |             |
|---|------------------|-------------|
|   | Female           | Male        |
| Tenants farms,<br>1992                                      | 10,486           | 206,419     |
| 1987  | 9,328            | 230,872     |
| <b>1992 FARMS BY TYPE OF ORGANIZATION</b>                   |                  |             |
| Individual or family (sole proprietorship)                  | 125,699          | 1,527,792   |
| Partnership   | 12,680           | 174,126     |
| Family held corporation                                     | 4,290            | 60,238      |
| Other than family held corporation                          | 561              | 7,478       |
| Other--cooperative, estate or trust,<br>institutional, etc. | 1,926            | 10,510      |
| <b>1992 MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>      |                  |             |
| Total sales farms   | 145,156          | 1,780,144   |
| \$1,000   | 5,121,266        | 157,487,068 |
| Crops, including nursery and greenhouse crops<br>farms      | 62139            | 1,042,004   |
| \$1,000   | 1,965,851        | 73,262,404  |
| Livestock, poultry, and their products farms                | 90,460           | 1,146,328   |
| \$1,000   | 3,155,415        | 84,224,663  |
| Farms by value of sales:                                    |                  |             |
| Less than \$1,000   | 27,539           | 185,041     |
| \$1,000 to \$2,499  | 22,564           | 187,623     |
| \$2,500 to \$9,999  | 44,761           | 438,989     |
| \$10,000 to \$19,999  | 16,952           | 215,115     |
| \$20,000 to \$24,999  | 4,534            | 65,203      |
| \$25,000 or more  | 28,806           | 688,173     |
| <b>1992 FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>     |                  |             |
| Cash grains (011)   | 14,955           | 390,053     |
| Field crops, except cash grains (013)                       | 19,151           | 231,187     |
| Cotton (0131) .   | 846              | 19,601      |

| Characteristics  | Operators by sex |           |
|--|------------------|-----------|
|  | Female           | Male      |
| Tobacco (0132)   | 7,726            | 83,100    |
| Sugarcane and sugar beets; Irish potatoes; field crops, except cash grains, n.e.c. (0133, 0134, 0139 ) | 10579            | 128,486   |
| Vegetables and melons (016)  | 2,153            | 27,452    |
| Fruits and tree nuts (017)   | 9,041            | 80,473    |
| Horticultural specialties (018)  | 5,617            | 34,095    |
| General farms, primarily crop (019)  | 3,565            | 45,282    |
| Livestock, except dairy, poultry, and animal specialties (021)   | 61,390           | 746,893   |
| Beef cattle, except feedlots (0212)  | 49,334           | 562,869   |
| Dairy farms (024)  | 4,584            | 108,828   |
| Poultry and eggs (025)   | 4,317            | 30,749    |
| Animal specialties (027) .   | 17,445           | 63,059    |
| General farms, primarily livestock and animal specialties (029)  | 2,938            | 22,073    |
| <b>1992 OPERATOR CHARACTERISTICS</b>   |                  |           |
| <b>Operators by place of residence:</b>  |                  |           |
| On farm operated   | 107,147          | 1,271,554 |
| Not on farm operated .   | 28,323           | 380,237   |
| Not reported   | 9,686            | 128,353   |
| <b>Operators by principal occupation:</b>  |                  |           |
| Farming  | 73,444           | 979,706   |
| Other .  | 71,712           | 800,438   |
| <b>Operators by days of work off farm:</b>   |                  |           |
| None   | 70,696           | 731,185   |
| Any  | 63,673           | 929,100   |
| 1 to 99 days   | 10,680           | 154,500   |
| 100 to 199 days  | 13,533           | 148,490   |
| 200 days or more .   | 39,460           | 626,110   |
| Not reported   | 10,787           | 119,859   |
| <b>Operators by age group:</b>   |                  |           |
| Under 25 years   | 1,458            | 26,448    |
| 25 to 34 years   | 8,534            | 170,292   |
| 35 to 44 years   | 23,623           | 358,123   |
| 45 to 54 years   | 28,513           | 400,820   |
| 55 to 59 years   | 14,662           | 198,653   |
| 60 to 64 years   | 16,073           | 200,451   |
| 65 to 69 years   | 14,918           | 173,247   |

| Characteristics  | Operators by sex |           |
|--|------------------|-----------|
|  | Female           | Male      |
| 70 years and over  | 37,375           | 252,110   |
| Average age .  | 57.6             | 52.9      |
| <b>1992 COMMODITY CREDIT CORPORATION LOANS AND GOVERNMENT PAYMENTS</b> |                  |           |
| Amount received from Commodity Credit Corporation loans                |                  |           |
| farms  | 2,788            | 108,307   |
| \$1,000  | 68,806           | 3,748,580 |
| Government payments received   | 26,131           | 543,085   |
|  |                  |           |
| \$1,000  | 166,331          | 5,043,193 |

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