**Appendix: The Calculation of Gini Coefficients**

***The Primary Source***

The Historical Commission of Hesse-Cassel conducted a survey of all villages and towns in the principality, asking local leaders like mayors or teachers over two hundred questions about local society and economic practices. Part XIV of this survey, consisting of two different questions, addresses the agrarian land distribution of a community. While the first question covers the right tail of the distribution, answers to the second question (#2) below provide sufficient information to put together a frequency table on land ownership. My English translations are followed by the questions in German.

Question 1: How much land makes up the largest farm? (*Wie viel stellbares Land besitzt der*

*Groesste* *Bauernhof?*)

Question 2: How many farmers own 60 or more Acker in arable land? (*Wie viele Bauern besitzen*

*60* *und mehr Acker (Morgen) an Ackerland?*), as follows:[[1]](#footnote-1)

 How many 50 – 59 Acker? (*Wie viele 50-59 Acker?*)

 How many 40 – 49 Acker? (*Wie viele 40-49 Acker?*)

 How many 30 – 39 Acker? (*Wie viele 30-39 Acker?*)

 How many 20 – 29 Acker? (*Wie viele 20-29 Acker?*)

 How many 10 – 19 Acker? (*Wie viele 10-19 Acker?*)

 How many 5 – 9 Acker? (*Wie viele 5-9 Acker?*)

 How many less than 5 Acker? (*Wie viele weniger als 5 Acker?*)

 How many citizens have besides house and garden no arable land? (*Wie viele*

 *Einwohner haben ausser Haus und Garten keinen Grundbesitz?*)

How many citizens have basically no arable land and rent (living quarters)? (*Wie*

*viele haben durchaus keining Grundbestiz und wohnen zur Miete?)*

***Calculation of Gini Coefficients***

I then calculated the Gini coefficient for each Hessian village and town for which I have land distribution data, a total of 1,047 communities, by using the Ineqdeco command in Stata.[[2]](#footnote-2) This particular command requires one to use non-zero integer data. The fourth column in Table 3 shows the values I assumed for quantities of land. Those who rented owned essentially no land, but I cannot use a zero in the calculation, so I multiplied all of the midpoint amounts (in Acker) by 100, giving the landless an amount of 1. For those who owned a house and no arable land I assumed that they owned plots of land equal to 5,000 square feet, which amounts to 11.48 percent of an acre and thus 19.5 percent of an Acker (rounded up to 20). Standard errors for Gini coefficients calculated on grouped data are in general very high.[[3]](#footnote-3)

The land distribution data are essentially grouped data. When calculating inequality measures of grouped data, a downward bias occurs. This bias can reach close to ten percent: Wodon and Yitzhaki (2003) showed this by taking unit-record data and grouping into 5 groups, which then created a downward bias of almost 8 percent, thus reducing the measure of inequality by 8 percent. Bottom-line, some of the various quirks of the land distribution data along with the assumptions I have made make it so that inequality is underestimated.

***Sensitivity Checks***

The Gini coefficients calculated so far base the value of a farm just on its size rather than on size and the price of the land. Quantity and price both matter in determining value of an asset. The Hesse-Cassel Historical Survey provided three different quality-adjusted land prices for each village and town, but no information exists to link prices to individual land parcels. For a subsample of 40 communities I calculated first a Gini coefficient based solely on the land distribution in quantities of land, and then a second Gini coefficient based on the land distribution with randomly and systematically assigned land prices.

In creating the sample of 40 I chose the villages and towns such that they came from a variety of districts, and were of a range of population sizes. The Hessian community survey provided three land prices for each village and town distinguished by quality of land (good, medium and bad) as well as the proportions each quality type made up of the arable land in the community. Because these land prices were not assigned to specific farms of the community land distribution, I assigned them randomly as determined by their respective weights. For example, in the village of Raboldshausen, good quality land was 25 percent of arable land, medium quality made up 25 percent as well, with the remaining 50 percent of the arable land being of poor quality. This village had 100 heads of households, and I placed them in order by the amount of land each head of household owned, from lowest to highest, and systematically assigned the prices as follows (like with systematic and ordered sampling): every first and second head of household received the poor quality price, every third received the medium quality price, and every fourth received the good quality price. The prices thus were randomly assigned according to the actual proportions of each quality type in the village.

These results are shown in Table 8A in Columns (8) and (9) respectively. Results show that, whichever method is used, the Gini coefficients are fairly close and deviations are for the most part fairly small, usually not more than a 4 percent difference in Gini coefficient, or 0.02 in absolute values; roughly, the larger the community, the smaller the deviations. For at least this small sample, using just land area to calculate Gini coefficients seems to work well and it was not necessary to use these prices to recalculate the Gini coefficients.[[4]](#footnote-4)

For the same set of 40 villages and towns in Table 8A, a second sensitivity check involved examining the right tail of the land distribution and seeing whether a more careful estimate of it mattered for the Gini coefficients. The land holding distribution states how many farms each community has that were 60 Acker or more and how big the largest farm was but it did not provide any more information on the biggest farms, essentially the right tail. In estimating the Gini coefficients I assumed originally that either every large farm was 65 Acker (Method I) or 100 Acker (Method II). Here, with this sensitivity test, I took a more individual approach and used one of three methods (A, B and C) to adjust the right tail of the land distribution and use more of the information at hand about the right tail: I modified the sizes of the large farms by varying degrees by using the information about the largest farm (Question #1), how many farms of 60 or more Acker existed (first part of Question #2) and balanced this against the total stated arable land of the village or town in the survey. Since the Gini coefficients were roughly the same whether prices were incorporated or not, I calculated adjusted Gini coefficients without land prices, (starting with the ones in Column 8 in Table 8A, restated in Table 8B). The new set of Gini coefficients from this procedure are shown in column (6) in Table 8B and can be compared to column (8) in Table 8A.

Method A, the most common method used and the one I preferred, involved changing the size of every one of the farms above 60 Acker. In the case of the village of Raboldshausen, for example, the biggest farm was 70 Acker, and there were 9 big farms of at least 60 Acker. I distributed these 9 farms across equidistant values between 60 and 70 Acker, 1.25 points apart (60, 61.25, 62.5, 63.75, 65, 66.25, 67.5, 68.75, and 70). The adjusted Gini is 0.659, virtually identical to the original 0.658 figure when 65 Acker is assumed for all of these bigger farms. The new total arable land resulting from this adjustment in Column (9) was 1,782 Acker, very close to the 1,804 Acker reported in the archival documents. The majority of community land distributions could be calculated in this exact fashion (Method A). Other community land holding distributions required slightly different methods, Methods B and C, to calculate adjusted Gini coefficients in Table 8B.[[5]](#footnote-5)

For many villages and towns, the method of calculating the Gini coefficient made little difference: adjusted Gini numbers in Table 8B (Col. 6) were 0.02 or less than the original ones in Table 8A (Col. 8) and reprinted in Table 8B (Col. 5). This was the case for communities where the biggest farm was not much above 60 Acker, like Anzefahr (#2), Holzhausen (#15), Kleba (#21), and Raboldshausen (#30). Even in villages and towns with a very large farm, adjusted Gini coefficients were often close to those in Table 8A if the number of farms in the right tail was a small percentage of the total number of households, as in the case of Grossentaft (#10), Hoenebach (#14), Ottrau (#28), and Rosenthal (#31).

In contrast, several communities had adjusted Gini coefficients that differed by 0.04 or more in Table 8B. This was due to large farms comprising 5 percent or more of total land distribution. Here I assumed that large farms were spread out evenly through the right tail; this was implemented as a conservative step to measure the potential change to the original Gini coefficients in Table 8B (Col. 5). More realistically, in the case of a community with 10 farms of more than 60 Acker, for example, with the largest farm at 100 Acker, most likely the other nine would be clustered close to 60 Acker, since asset data are usually so right-skewed (long right tail with the mean greater than the median). Given my conservative assumption, the new Gini coefficients in Table 8B (Col. 6) are potentially biased upward. The actual Gini coefficients should lie somewhere between the numbers in columns (5) and (6).

Table 8A

GINI COEFFICIENTS, WITH AND WITHOUT LAND PRICES

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|  | Village or Town | 1855Population | Elevation | #Households, #Farms | Percent Good, Medium and Bad Land | Land Prices by Quality(in Thaler) | Gini, from Stata | Gini, No Land Prices | Gini, with Land Prices |
| 1 | Althattendorf/ZIG | 302 | 833 | 41, 33 | 67, 17, 16 | 100, 80, 45 | 0.571 | 0.561 | 0.550 |
| 2 | Anzefahr/KIR | 347 | 682 | 67, 55 | 28, 39, 33 | 140, 90, 35 | 0.686 | 0.681 | 0.676 |
| 3 | Breitau/ROF | 435 | 800 | 122, 80 | 28, 33, 40 | 100, 35, 1.5 | 0.751 | 0.749 | 0.737 |
| 4 | Cassdorf/HOM | 501 | 632 | 108, 77 | 25, 50, 25 | 112, 75, 45 | 0.744 | 0.743 | 0.740 |
| 5 | Dainrode, FKB | 274 | 1,134 | 36, 34 | 25, 50, 25 | 120, 80, 40 | 0.351 | 0.333 | 0.337 |
| 6 | Eiterhagen/KS | 442 | 816 | 73, 70 | 25, 25, 50 | 100, 60, 25 | 0.560 | 0.544 | 0.567 |
| 7 | Elters/FD | 321 | 1,440 | 42, 41 | 33, 33, 33 | 33, 25, 18 | 0.367 | 0.352 | 0.365 |
| 8 | Ginseldorf/MR | 248 | 624 | 40, 36 | 25, 50, 25 | 60, 40, 28 | 0.554 | 0.542 | 0.546 |
| 9 | Gleichen/FZ | 363 | 690 | 82, 58 | 30, 40, 30 | 100, 60, 27.5 | 0.768 | 0.766 | 0.771 |
| 10 | Grossentaft/HUN | 863 | 1,015 | 110, 97 | 0, 50, 50 | 120, 68.6, 34 | 0.581 | 0.577 | 0.574 |
| 11 | Hasselbach/WIZ | 211 | 876 | 26, 15 | 13, 50, 37 | 60, 40, 10 | 0.710 | 0.699 | 0.710 |
| 12 | Heimarshausen/WOH | 435 | 826 | 58, 39 | 29, 29, 42 | 100, 60, 40 | 0.657 | 0.651 | 0.659 |
| 13 | Herlefeld/MEG | 292 | 1,052 | 48, 39 | 17, 22, 61 | 50, 25, 10 | 0.539 | 0.529 | 0.514 |
| 14 | Hoenebach/ROF | 571 | 920 | 74, 51 | 0, 25, 75 | 60, 50, 23 | 0.749 | 0.745 | 0.755 |
| 15 | Holzhausen/MR | 84 | 620 | 10, 9 | 25, 50, 25 | 120, 90, 60 | 0.299 | 0.221 | 0.253 |
| 16 | Iba/ROF | 1,087 | 860 | 241,141 | 25, 42, 33 | 85, 45, 15 | 0.786 | 0.785 | 0.789 |
| 17 | Kathus/HEF | 466 | 737 | 86, 82 | 33, 33, 33 | 70, 40, 30 | 0.577 | 0.572 | 0.576 |
| 18 | Kernbach/MR | 103 | 680 | 20,17 | 31, 37, 32 | 45, 38, 8 | 0.490 | 0.463 | 0.458 |
| 19 | Kilianstaedten/HU | 1,038 | 454 | 255,199 | 25, 50, 25 | 133, 120, 107 | 0.708 | 0.707 | 0.707 |
| 20 | Kirchhosbach/ESW | 328 | 765 | 51, 36 | 33, 67, 0 | 60, 30, 13 | 0.801 | 0.798 | 0.803 |
| 21 | Kleba/HEF | 229 | 716 | 35, 32 | 33, 33, 33 | 60, 35, 18 | 0.641 | 0.630 | 0.624 |
| 22 | Luetzelhausen/GN | 293 | 571 | 53, 49 | 0, 67, 33 | 100, 40, 6.7 | 0.403 | 0.392 | 0.392 |
| 23 | Marzhausen/WIZ | 263 | 650 | 61, 25 | 33, 33, 33 | 125, 60, 40 | 0.838 | 0.837 | 0.815 |
| 24 | Mittelaschenbach/HUN | 223 | 1,126 | 40, 33 | 8, 34, 58 | 100, 50, 20 | 0.599 | 0.589 | 0.604 |
| 25 | Neuenhain/HOM | 494 | 670 | 113, 78 | 25, 25, 50 | 60, 30, 20 | 0.710 | 0.708 | 0.708 |
| 26 | Niederissigheim/HU | 272 | 397 | 51, 48 | 40, 40, 20 | 267, 200, 133 | 0.590 | 0.582 | 0.591 |
| 27 | Niederwald/KIR | 399 | 618 | 76, 60 | 33, 33, 33 | 180, 90, 40 | 0.690 | 0.686 | 0.696 |
| 28 | Ottrau/ZIG | 64 | 726 | 101, 76 | 88, 0, 12 | 80, 60, 25 | 0.735 | 0.732 | 0.726 |
| 29 | Raboldshausen | 877 | 1,105 | 100, 59 | 25, 25, 50 | 50, 28, 15 | 0.661 | 0.658 | 0.667 |
| 30 | Rex/FD | 102 | 990 | 12, 12 | 50, 25, 25 | 60, 30, 20 | 0.258 | 0.191 | 0.227 |
| 31 | Rosenthal/FKB | 1,391 | 888 | 288,226 | 33, 33, 33 | 60, 40, 20 | 0.654 | 0.653 | 0.657 |
| 32 | Rudolphshan/HUN | 213 | 1,123 | 44, 29 | 5, 29, 66 | 35, 24, 14 | 0.739 | 0.733 | 0.744 |
| 33 | Schachten/HOG | 256 | 696 | 43, 26 | 20, 50, 30 | 80, 50, 25 | 0.791 | 0.787 | 0.777 |
| 34 | Steinau/FD | 328 | 914 | 50, 42 | 11, 33, 56 | 50, 36, 20 | 0.640 | 0.633 | 0.648 |
| 35 | Udenhausen/HOG | 604 | 860 | 123, 71 | 33, 33, 33 | 50, 30, 20 | 0.752 | 0.751 | 0.747 |
| 36 | Unterreichenbach/GN | 386 | 1,012 | 78, 74 | 17, 50, 33 | 53, 27, 7 | 0.448 | 0.441 | 0.428 |
| 37 | Viesebeck/who | 383 | 768 | 99, 98 | 38, 38, 25 | 100, 50, 8 | 0.487 | 0.482 | 0.483 |
| 38 | Wabern/FZ | 1,155 | 530 | 155,135 | 33, 33, 33 | 200, 135, 70 | 0.487 | 0.484 | 0.489 |
| 39 | Weidenbach/WIZ | 139 | 906 | 24, 22 | 17, 31, 52 | 100, 70, 30 | 0.582 | 0.564 | 0.528 |
| 40 | Weissenborn/ESW | 486 | 877 | 96, 75 | 25, 25, 50 | 50, 28, 11 | 0.604 | 0.627 | 0.624 |

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| *Notes*: The Gini coefficients in Columns (7) and (8) are area-based. The Gini calculations in Column (9) are based on both area and land prices, for which I randomly assigned prices to farms in the community distribution, explained in the Online Appendix. The Gini figures in Columns (8) and (9) were calculated in Microsoft Excel, and the figures in Column (7) are those used in Table 5A. Elevation in Column (3) is measured in Rhine feet. The principality was composed of four contiguous regions and two non-contiguous districts (*Kreise*), Schmalkalden (SM), and Rinteln (RI). Together there were 21*Kreise*(districts) in the principality. The four contiguous regions contained the following 19*Kreise*:North Hesse: Eschwege (ESW); Fritzlar (FZ); Hofgeismar (HOG); Homberg (HOM); Kassel (KS); Melsungen (MEG); Rotenberg (ROF); Witzenhausen (WIZ); Wolfhagen (WOH). Upper Hesse: Frankenberg (FKB); Kirchhain (KIR); Marburg (MR); Ziegenhain (ZIG).  Fulda: Fulda (FD); Hersfeld (HEF); Hünfeld (HUN). Hanau: Gelnhausen (GN); Hanau (HU); Schlüchtern (SLU).*Sources*: **(**i) Column (2), Population data: Hessen-Kassel.*Kurfürstlich Hessisches Hof- und Staatshandbuch*, 1859 (1855 census for Hesse-Cassel); (ii) Column (3), Elevation data, same as Table 7A; (iii) Columns (4) through (9), Community survey data: same as Table 7A. |
|  |

Table 8B

GINI COEFFICIENTS, WITH ADJUSTMENTS TO THE RIGHT TAIL

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|  | Village or Town | Biggest Farm(in Acker) | #Arable Acker in Community | #Households, #Farms | Gini, No Land Prices, Col. (8), from Table 8A | Gini, No Land Prices, Adjusted Right Tail | Method of Right Tail Adjustment | #Big Farms, #Adjusted Farms,% RH Tail | #Arable Acker. Adjusted |
| 1 | Althattendorf/ ZIG |  112 |  969 | 41, 33 | 0.561 | 0.580 | B | 9, 2, 13 |  999 |
| 2 | Anzefahr/ KIR |  80 | 1,122 | 67, 55 | 0.681 | 0.688 | A | 5, 5, 12 | 1,056 |
| 3 | Breitau/ ROF |  201 | 2,320 | 122, 80 | 0.749 | 0.814 | C | 14, 8, 11 | 2,338 |
| 4 | Cassdorf/HOM |  125 | 1,492 | 108, 77 | 0.743 | 0.769 | A | 6, 6, 6 | 1,384 |
| 5 | Dainrode/ FKB |  70 | 1,012 | 36, 34 | 0.333 | 0.333 | A | 2, 2, 6 | 1,112 |
| 6 | Eiterhagen/KS |  45 |  447 | 73, 70 | 0.544 | N/A | None | 0, 0, 0 | N/A |
| 7 | Elters/FD |  160 | N/A | 42, 41 | 0.352 | 0.409 | A | 3, 3, 7 | 1,432\* |
| 8 | Ginseldorf/MR |  115 |  766 | 40, 36 | 0.542 | 0.562 | B | 7, 2, 18 | 1,032 |
| 9 | Gleichen/FZ |  201 | 1,365 | 82, 58 | 0.766 | 0.821 | C | 7, 5, 9 | 1,383 |
| 10 | Grossentaft/HUN |  139 | 1,573 | 110, 97 | 0.577 | 0.589 | B | 8, 2, 7 | 2,350 |
| 11 | Hasselbach/WIZ |  44 |  400 | 26, 15 | 0.699 | N/A | None | 0, 0, 0 | N/A |
| 12 | Heimarshausen/WOH |  180 | 1,563 | 58, 39 | 0.651 | 0.713 | C | 16, 4, 28 | 1,575 |
| 13 | Herlefeld/MEG |  100 | 1,397 | 48, 39 | 0.529 | 0.566 | A | 9, 9, 19 | 1,395 |
| 14 | Hoenebach/ROF | 150 |  467 | 74, 51 | 0.745 | 0.765 | B | 5, 2, 7 | 1,007 |
| 15 | Holzhausen/MR |  80 |  417 | 10, 9 | 0.221 | 0.246 | A | 1, 1, 10 | 398 |
| 16 | Iba/ROF | 300 | 3,174 | 241, 141 | 0.785 | 0.828 | C | 20, 4, 8 | 3,191 |
| 17 | Kathus/HEF |  66 |  800 | 86, 82 | 0.572 | 0.572 | A | 1, 1, 1 | 1,051 |
| 18 | Kernbach/MR |  90 |  820 | 20, 17 | 0.463 | 0.499 | A | 6, 6, 30 |  674 |
| 19 | Kilianstaedten/HU  | 145 | 3,987 | 255, 199 | 0.707 | 0.748 | A | 15, 15, 6 | 3,517 |
| 20 | Kirchhosbach/ESW | 200 |  921 | 51, 36 | 0.798 | 0.851 | A | 6, 6, 12 |  970 |
| 21 | Kleba/HEF |  80 |  779 | 35, 32 | 0.630 | 0.643 | A | 5, 5, 14 |  674 |
| 22 | Luetzelhausen/GN |  55 |  686 | 53, 49 | 0.392 | N/A | None | 0, 0, 0 | N/A |
| 23 | Marzhausen/WIZ | 335 |  800 | 61, 25 | 0.837 | 0.901 | A | 3, 3, 5 |  843 |
| 24 | Mittelaschenbach/HUN | 120 | 1,228 | 40, 33 | 0.589 | 0.638 | A | 7, 7, 18 | 1,110 |
| 25 | Neuenhain/HOM |  68 |  951 | 113, 78 | 0.708 | 0.709 | A | 1, 1, 11 |  758 |
| 26 | Niederissigheim/HU |  85 | 1,196 | 51, 48 | 0.582 | 0.598 | A | 6, 6, 12 | 1,048 |
| 27 | Niederwald/KIR |  80 |  972 | 76, 60 | 0.686 | 0.691 | A | 1, 1, 1 |  906 |
| 28 | Ottrau/ZIG | 150 | 1,300 | 101, 76 | 0.732 | 0.758 | A | 3, 3, 3 | 1,188 |
| 29 | Raboldshausen |  70 | 1,804 | 100, 59 | 0.658 | 0.659 | A | 9, 9, 9 | 1,782 |
| 30 | Rex/FD | 104 | Missing | 12, 12 | 0.191 | 0.276 | A | 7, 7, 58 | N/A |
| 31 | Rosenthal/FKB | 300 | 2,466 | 288, 226 | 0.653 | 0.679 | B | 3, 2, 1 | 3,037 |
| 32 | Rudolphshan/HUN |  78 |  701 | 44, 29 | 0.733 | 0.742 | A | 5, 5, 11 |  674 |
| 33 | Schachten/HOG | 170 | 2,071 | 43, 26 | 0.787 | 0.829 | A | 8, 8, 19 |  958 |
| 34 | Steinau/FD | 155 | 2,116 | 50, 42 | 0.633 | 0.701 | A | 5, 5, 10 |  973 |
| 35 | Udenhausen/HOG | 200 | 1,580 | 123, 71 | 0.751 | 0.797 | C | 6, 4, 5 | 1,570 |
| 36 | Unterreichenbach/GN |  34 | 1,227 | 78, 74 | 0.441 | N/A | None | 0, 0, 0 | N/A |
| 37 | Viesebeck/WOH | 120 | 1,622 | 99, 98 | 0.482 | 0.494 | B | 7, 2, 7 | 2,071 |
| 38 | Wabern/FZ | 250 | Missing | 155, 135 | 0.484 | 0.573 | A | 7, 7, 5 | N/A |
| 39 | Weidenbach/WIZ | 100 |  532 | 24, 22 | 0.564 | 0.593 | A | 1, 1, 4 |  474 |
| 40 | Weissenborn/ESW |  80 | 1,648 | 96, 75 | 0.627 | 0.631 | A | 4, 4, 4 | 1,683 |

|  |
| --- |
| *Notes*: Columns (2) and (3) are based on archival sources and list respectively the largest farm in the community and the amount (in Acker) of arable land. Column (4) is the same as in Table 7A, and Column (5) is reprinted from Column (8) in Table 7A and shows the Gini coefficient when assuming 65 Acker for all big farms. The resulting Gini coefficient once the right tail is adjusted is in Column (6), and Column (7) explains the adjustment, with Column (8) showing what percentage of big farms were adjusted and how this affected the Acker calculation (Column (9)). Land holding distributions with no farms above 60 Acker required no adjustments and thus have “None” in Column (7).*Sources*: (i) Columns (2) through (9), Community data: same as Table 7A. |

1. The question asked specifically for amounts of land in units of Acker or Morgen, a measurement used more south of the principality of Hesse-Cassel. I converted all amounts in Morgen to Acker. An Acker is worth 0.58877 of a U.S. acre; see Fox (1976, p. 391), Noback and Noback (1858) and Pedlow (1988, p. 269). [↑](#footnote-ref-1)
2. The Ineqdeco command allows one to easily compute Gini coefficients for grouped data. [↑](#footnote-ref-2)
3. My grouped data provide 10 buckets of possible land amounts for the heads of households of each community. If one were to assume that each one in a given bucket owns the midpoint amount of their particular bucket and then recalculate Gini coefficients, the resulting standard errors plunge to more acceptable levels without changing the point estimate of the Gini coefficients. This occurs since grouped data assume an equal distribution among the individual observations within each group. [↑](#footnote-ref-3)
4. Eddie found something similar for Eastern Prussian agricultural land, namely that “the total area of agrarian land holdings should be, under normal circumstances, a very good proxy for their market value in constructing distributions of landed wealth when data on tax assessments are unavailable” (Eddie, 1993, p. 103). [↑](#footnote-ref-4)
5. Method B was applied to villages and towns where the land holding distribution often contained a very large farm: in six cases, just correcting for the largest farm amount put the total arable land resulting from the calculation well above what was reported in the archival documents. In these cases, and to bring the total arable land closer to the archival numbers I only adjusted two farms sizes, one 65 figure down to 60 Acker and one 65 figure up to the largest farm amount (Method B). Lastly, Method C involved changing as many large farm values as possible, until the total arable amount implied in the calculations reached the value reported in the archival documents. With Method C (applied to five large communities), I adjusted a majority of the high farm values, starting with the biggest farm, and this procedure comes very close to the desired Method A. [↑](#footnote-ref-5)