

Notes for 129 Slavery and public policy (09-01-20)

Key issues

- 1) How to compare farms with slaves and farm with free labor

$$) \quad G_s / G_n = \frac{Q_s / Q_n}{(L_s / L_n)^{\alpha_L} (K_s / K_n)^{\alpha_K} (T_s / T_n)^{\alpha_T}}$$

The Fogel Engerman approach is one that approximates differences in profits.

Why controversial?

Why sensible

TABLE 2—INDEXES OF TOTAL FACTOR PRODUCTIVITY ON SOUTHERN FARMS,
BY SUBREGION AND SIZE OF FARM ($G_n = 100$)

Size of Farm as Measured by the Number of Slaves Per Farm	Slave Exporting States (Old South)	Slave Importing States (New South)	All States in Parker-Gallman Sample (Cotton South)
0	98.4	112.7	109.3
1-15	103.3	127.2	117.7
16-50	124.9	176.1	158.2
51 or more	135.1	154.7	145.9
All slave farms	118.9	153.1	140.4
All farms (slave and nonslave) in the subregion	116.2	144.7	134.7

TABLE 3—THE RELATIONSHIP BETWEEN TOTAL FACTOR PRODUCTIVITY AND
FARM SIZE IN EACH REGION
(Index of Free Farms in Each Region = 100)

Number of Slaves Per Farm	Slave Exporting States (Old South)	Slave Importing States (New South)	All States in Parker-Gallman Sample (Cotton South)
0	100.0	100.0	100.0
1–15	105.0	112.9	107.7
16–50	126.9	156.3	144.7
51 or more	137.3	137.3	133.5
All slave farms	120.8	135.8	128.5

2) What explains these differences

Gang labor (that is what shows up from the farm size

Then what is it about gang labor: (hours worked vs labor intensity)

_____Olmstead and the Role of public policy_____

Interaction between the market and government in agriculture

Three steps

- (1) connection to Tuesday
- (2) Issues with livestock
- (3) Issues with meat

Over time production shifts West

TABLE 9.3. *Geographic Center of Animal Stock, 1840-1910*

	Latitude		Longitude		Latitude		Longitude	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
	Sheep				Swine			
1840	40.62	41.21	78.67	77.77	37.68	37.88	83.44	84.20
1850	39.85	40.36	81.77	81.46	36.93	36.98	85.07	85.40
1860	39.29	40.12	85.53	83.04	37.20	37.70	86.47	86.14
1870	39.61	40.20	88.59	84.61	37.89	38.48	87.60	87.29
1880	38.96	39.86	93.04	87.81	38.54	39.44	88.84	89.08
1890	39.47	40.20	94.69	90.23	39.01	39.82	90.17	90.52
1900	40.80	41.17	100.02	104.83	39.12	39.95	90.57	90.92
1910	40.69	41.01	100.32	104.77	38.82	39.78	90.76	91.11
	Cattle				Dairy			
1840	38.35	39.08	81.55	81.66	NA	NA	NA	NA
1850	37.75	38.57	83.80	83.25	38.59	39.74	82.12	81.88
1860	37.50	38.57	87.35	86.07	38.73	39.93	84.65	83.63
1870	38.00	39.42	87.42	87.02	39.52	40.48	84.76	84.08
1880	38.60	39.78	89.27	89.13	39.51	40.42	86.25	86.07
1890	38.80	39.81	92.17	92.45	39.69	40.59	88.25	88.70
1900	38.76	39.78	93.47	94.07	40.00	40.82	88.39	88.72
1910	38.86	39.79	93.73	93.75	39.87	40.75	89.47	89.47
	Horses and Mules							
1840	38.47	38.99	82.29	82.69				
1850	38.15	38.83	83.80	84.13				
1860	38.14	38.91	86.13	85.72				
1870	38.88	39.67	87.30	87.07				
1880	38.85	39.72	88.98	88.66				
1890	39.33	40.00	91.31	90.70				
1900	39.16	39.77	92.21	91.83				
1910	39.20	39.72	92.86	92.68				

Source: Derived using data from Haines and Inter-university Consortium for Political and Social

2. What makes animals different from plants as a technology?

Relationship to science, (evolution and Darwin; Gene theory and mendels). Can a flawed theory have useful implications?

As markets get specialized, farmers tend to specialise their stock, what are the implications for the genetic stock and possibilities for further biological change.

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Is genetic diversity something we value, is it a public good. If so should we produce regulation? Can the value of genetic diversity be appropriated?

Implication of selection and feed changes are large (note this is before any hormone treatment program)

TABLE 11.1. *Average Annual Milk Yield per Dairy Cow, 1850-1940*

Year	Alvord-Pirtle	Bateman 1968	Bateman 1962	Strauss-Bean & Towne-Rasmussen	Voelker & Agricultural Statistics
1850	1,436	2,371	1,839	1,879	
1860	1,505	2,559	1,904	1,922	
1870	1,772	2,670	2,139	1,970	
1880	2,004	2,797	2,382	2,475	
1890	2,709	3,050	2,777	2,604	
1900	3,646	3,352	3,384	3,384	
1910	3,113	3,570	3,521	3,200	3,759
1920	3,627				4,008
1930					4,508
1940					4,624

2) How to make sure this process continues

Key issue is controlling livestock diseases

Reverse problem is to avoid barriers to trade.

What are the connections between animal health and human health

What is the role of Science?

What is the role of Politics?

Why do we succeed with Beef and fail with pork?

5) Summing up

Biological change is important

Here food supply—an activity that is a declining share of GDP.

Note the issue of elasticities.

But could also look at pharmaceuticals

This is an area of expanding economic activity that faces exactly the same problem

- 1) Keeping the food supply healthy
 - a. Food and Drug administration

Both problems involve conflict between states, and conflicts between different kind of producers

TABLE 1
Average Capital in Slaughter and Packing Plants

State	1880	1890	1900	1910
Illinois	\$84,056	\$503,792	\$1,112,957	\$1,202,000
Kansas	119,243	615,892	1,177,584	1,081,971
Nebraska	27,558	724,214	1,377,075	1,078,556
Maryland	96,111	58,417	18,884	70,519
Massachusetts	37,720	299,489	514,276	165,394
New Jersey	57,256	36,513	38,741	97,405
New York	35,597	69,643	139,610	145,109
Rhode Island	66,444	75,310	108,550	28,238

TABLE II
The Growth of the Dressed Beef Trade
(in tons from Chicago)

	1880	1881	1882	1883	1884	1885
Live Cattle						
Shipments:	416,204	433,600	383,660	372,214	310,410	281,022
Dressed Beef						
Shipments:	30,705	43,774	65,775	149,640	184,993	231,634
Ratio of						
Dressed Beef						
to Live Cattle:	.07	.10	.17	.40	.60	.82

Large scale meat packers and consumers want regulation. So you get the FDA