Overview

Slavery exists where it is economically worthwhile to those in power – that is, where masters derive either market profits or other sorts of net benefits from owning slaves. Certain conditions enhance the likelihood that any given society might hold slaves – cheaply obtained supplies of foreigners (especially ones with features distinct from those of the reigning class), division of production processes into a series of simple and easily monitored tasks, and well-developed markets that sell specialized commodities for specie – but slavery has flourished in many places, regardless of religion, climate, or cultural attainments.

Central to the economic success of slavery are political and legal institutions that validate the ownership of other persons. Some slave societies have considered slavery a part of the natural order of things; others have viewed slavery as established only by positive law. Regardless of underlying philosophy, slave societies typically craft finely nuanced legal rules that govern the ownership of other human beings.

In many instances, these laws reveal economic principles at work. Consider manumission rules. Allowing masters to free slaves at will would create incentives to manumit unproductive slaves – those for whom no one would pay a positive price. Consequently, the community at large would bear the costs of young, old, and disabled former slaves. The public might also run the risk of having rebellious former slaves in its midst. Roman emperor Augustus worried considerably about this adverse selection problem and eventually enacted restrictions on the age at which slaves could go free, the number freed by any one master, and the number manumitted by last will (Watson, 1987; Finley, 1987). Antebellum US Southern states passed similar laws (Finkelman, 1988, 1989a; Morris, 1996; Wahl, 1998).

Aside from these sorts of restrictions, societies that permit ownership of slaves typically confer upon masters the usual rights of property ownership. The law generally considers slaves as personal chattels, although late Roman law (and Louisiana law) sometimes classified slaves as chattels real, precluding their sale separate from land (Schafer, 1994; Wahl, 1998). Like other chattels, slaves and their offspring can typically be bought, sold, hired, exchanged, given, bequeathed, seized for debts, and put up
as collateral. Unlike other property, however, slaves sometimes bear responsibility for their behavior, receive an education, and buy their own freedom.

Slavery has features in common with other forms of coerced labor, such as debt bondage, indenture, peonage, serfdom, and corvée (statute) labor (Domar, 1970; Bloch, 1975; Kolchin, 1987; Bush, 1996). Yet slavery is a species of servitude set apart: slaves typically have been aliens with minimal freedom of action, permanently deprived of the title to their own human capital and of the right to raise their own children, and often with no higher authority than their masters. Orlando Patterson put it plainly (1982, p. 5): the slave is a socially dead person.

The early history of slavery
Slavery probably developed after civilization turned from hunting to pastoral societies: agriculture brought specialization of tasks and opportunities for exploiting another’s labor. Ancient Sumerian, Phoenician, Hebrew, Babylonian, and Egyptian societies used slaves to tend flocks, work fields and mines, and help with domestic chores (Jones, 1956). Moses Finley (1961) made the provocative argument, however, that the pre-classical world actually was one without any ‘free’ men: just as the Greeks invented individual freedom, so too did they invent chattel slavery.

Slavery flourished in the classical period, predominantly in cities open to commercial exchange (Westermann, 1943; Finley, 1961 and 1987). Rarely was the Greek a slave in his own city. Greek slaves worked in mines, quarries, fields, handicrafts, and domestic, police, and secretarial work; skilled slaves often lived apart from their masters. A unique feature of Greek society was benefit clubs that lent slaves money to buy their freedom.

Rome inherited the slave trade; slaves comprised about 30 per cent of the population in Rome’s heyday. Roman slaves enjoyed limited freedoms – they could acquire property, schooling, and, unlike Greek slaves, citizenship upon manumission (Phillips, 1985; Watson, 1987).

Slavery declined – but did not end – with the decline of Rome (Meltzer, 1993). The word ‘slave’ itself derived from the most numerous ethnic group in the medieval trade in human beings – Slavs. The Germanic tribes held slaves, sometimes using long hair as an identifying mark. With the emergence of Islam along the Arabian peninsula, religious wars generated large slave populations, mostly used for domestic and military service. William the Conqueror ended the export of English slaves, but serfdom did not replace domestic slavery in England until about 1200. Scandinavians held and traded thralls until the Swedish king declared all offspring of Christian slaves free in 1335. But slavery continued unabated in Italy and the Iberian peninsula: Genoa and Venice had active slave markets in the thirteenth
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century, Seville and Lisbon two centuries later. Ship captains reporting to Prince Henry the Navigator brought the first black slaves to Portugal in the 1440s. This act was a portent of things to come, as the Portuguese helped instigate the cross-Atlantic trade in Africans shortly thereafter.

The African slave trade

Perhaps the most highly developed market of its time was the lucrative African slave trade. From 1500 to 1900, an estimated 12 million Africans left their homes to go west to the New World, with about 10 million of them completing the journey. The first African slaves in North America arrived in Virginia in 1619 on a Dutch ship. Yet very few imported slaves ended up in the British colonies and the young American republic. By 1808, when the trans-Atlantic slave trade to the US officially ended, only about 6 per cent of African slaves landing in the New World had come to North America (Anstey, 1975; Manning, 1990 and 2006; Evans and Richardson, 1995; Blackburn, 1997; Eltis et al., 1999).

Africans were sold east as well as west: millions of them made the long trek across their own continent to Arab, Asian, and even some European countries. Some 6 million African slaves were sent from sub-Saharan Africa eastward; another 8 million remained enslaved on their own soil (Lovejoy, 1983).

One feature particularly distinguished New World slavery: its association with race. Early Spanish settlers enslaved native Americans, who soon perished in droves from smallpox and punishingly hard work. Via licensing arrangements, Portugal and Spain began importing African slaves into their colonies in the early 1500s to replace the dying native population. In 1517, Charles I began to import Africans, first to the West Indies, then to the Spanish-controlled mainland. Brazil commenced legal importation of black slaves in 1549. Traders could acquire slaves in specific African zones, then sell them in America – up to 120 per year per Brazilian planter, for example. Because prices for Brazilian licenses were cheaper than other licenses, traders applied for these, then rerouted their vessels in search of extra profits (Anstey, 1975; Blackburn, 1997).

The evils of the trade expanded when Britain replaced Spain and Portugal as the major trafficker in African slaves. Elizabethan-era captain Sir John Hawkins had transported slaves, but England did not figure large in the African trade until the seventeenth-century Royal African Company became the biggest slaver in the world (Galenson, 1982; Watson, 1989).

Many parties were involved in the infamous ‘trading triangle’: European captains plied the chieftains of West Africa with liquor, guns, cotton goods, and trinkets. In exchange, Africans supplied slaves to suffer through the arduous middle passage across the Atlantic Ocean. Over
40 per cent went to Brazil. Slaves worked on sugar plantations in the West Indies, grew coffee and mined precious metals in Brazil, and grew tobacco, sugar, rice, and eventually cotton in North America. These goods, along with molasses and rum, went back to England (Sheridan, 1947; Solow and Engerman, 1987). One innovative study even links the rise in tooth decay in Britain to the slave trade (Austen and Smith, 1990). It suggests that sugar in one’s tea increasingly signified respectability, so even working-class folks could enjoy rotting teeth in their quest for social standing as sugar flowed freely and cheaply back to England.

**Profitability of the Atlantic slave trade**

Commanders of slave vessels and their financial backers made fortunes from the Atlantic trade. Transporting slaves was a major industry in the seventeenth and eighteenth centuries, with the Royal African Company a principal player for at least five decades. David Galenson (1982), in his study of the Company, unveiled a picture of closely connected competitive economic markets in Africa and America that responded quickly to economic incentives.

Despite its size, the Company was hardly a monopoly – hordes of small ship captains found the trade worthwhile, with the principal costs being those associated with capturing and transporting Africans, and the prospective profits at least comparable to returns on other sorts of ventures. Many researchers have devoted themselves to ascertaining the exact rate of return that these captain-traders earned, with the most plausible estimates being about 9 to 10 per cent. Among these scholars are David Eltis (1987, 2000), Seymour Drescher (1999), David Richardson (1987, 1989), William Darby (1985, 1989), Joseph Inikori (1981), Roger Anstey (1975), and E.W. Evans (with Richardson, 1995).

But other interests also made much from the Atlantic trade. European banks and merchant houses helped develop the New World plantation system through complicated credit and insurance mechanisms, enjoying substantial returns as part of the bargain (Engerman, 1972; Menard, 2006). Well-placed African dealers also benefited. In sickening cycles, Sudanic tribes of the fifteenth and sixteenth centuries sold slaves for horses, then used the horses to obtain more slaves. Tribes of the seventeenth and eighteenth centuries similarly traded slaves for guns, then used guns to hunt down more slaves (Lovejoy, 1983).

But of all who reaped rewards from the Atlantic trade, British and US citizens stand out. In the 1940s, West Indian scholar Eric Williams (1944) went so far as to suggest that British industrialization was intimately linked to slavery. Without the slave trade to fuel growth in her colonies, Williams claimed, Great Britain could not have become the industrial
superpower of the eighteenth and nineteenth centuries that she was. Although Williams's thesis has since largely been discarded, other scholars nevertheless agree that the slave trade benefited England (Dunn, 1972; Engerman, 1972; Engerman and Genovese, 1975; Eltis and Engerman, 2000). Even Elizabeth I made money by investing in slaving ships and captains. David Eltis (1987) speculates, in fact, that Britain would have enjoyed higher living standards by continuing as a slave trader rather than becoming an abolitionist power. Early industry in New England – cotton textiles, shipbuilding, and the like – also had strong connections to the slave trade and slavery (Bailey, 1986 and 1990). Among those who benefited were the New England families of Browns, Cabots, and Faneuils.

**Internal slave markets**

Several early societies set up thriving internal markets for trade in slaves. Greek slaves sold like other commodities, in the agora (Westermann, 1943; Finley, 1961). Many Roman slaves started out as prisoners of war; because field commanders could dispose of prisoners as they wished, Roman slave dealers simply began traveling along with the army to snap up likely specimens (Phillips, 1985; Watson, 1987). Judging from the distribution of Italian wine jars in Gaul, wine evidently exchanged for Gallic slaves in the first and second centuries BC. The slave trade generated so much gold for Western Europe – necessary for trade with the East – that the early ninth-century Church made little headway in its abolition campaign. In his writings, Hernando Cortés left a description of the large number of slaves brought to auction at the great marketplace near Tenochtítlan (present-day Mexico City) (Watson, 1989; Meltzer, 1993).

Slave markets also existed across the antebellum US South. Even today, one can find stone markers like the one next to the Antietam battlefield, which reads: ‘From 1800 to 1865 This Stone Was Used as a Slave Auction Block. It has been a famous landmark at this original location for over 150 years.’ Private auctions, estate sales, and professional traders facilitated easy exchange. Established dealers like Franklin and Armfield in Virginia, Woolfolk, Saunders, and Overly in Maryland, and Nathan Bedford Forrest in Tennessee prospered alongside itinerant traders who operated in a few counties, buying slaves for cash from their owners, then moving them overland in coffles to the lower South (Bancroft, 1931; Pritchett, 1997). Over a million slaves were taken across state lines between 1790 and 1860 with many more moving within states. Some of these slaves went with their owners; some were sold to new owners. In his monumental study, Michael Tadman (1990) found that slaves who lived in the upper South faced a very real chance of being sold by their owners for speculative profits. Along with US slave sale markets came farseeing methods for
coping with risk, such as explicit – and even implicit – warranties of title, fitness, and merchantability (Wahl, 1998).

Slave prices
Scholars have gathered slave prices from a variety of sources, including censuses, probate records, plantation and slave-trader accounts, and proceedings of slave auctions. The largest source of information is a New Orleans data set compiled by Robert Fogel and Stanley Engerman (1974), but people have analyzed the structure of slave prices for many societies.

The exchange prices for slaves – often substantial – reflect their economic value. Healthy male slaves sold for an entire date plantation grove in Sumeria in 2000 BC. Eight oxen bought a slave among the Anglo-Saxon tribes in the mid-400s (Jones, 1956). Prime field hands went for four to six hundred dollars in the US in 1800, thirteen to fifteen hundred dollars in 1850, and up to three thousand dollars on the eve of the Civil War. Even controlling for inflation, slave prices rose significantly in the six decades before secession. Slavery remained a thriving business on the eve of the Civil War: by some estimates, average slave prices by 1890 would have increased more than 50 per cent over their 1860 levels (Fogel and Engerman, 1974; Schmitz and Schaefer, 1981; Fogel, 1989; Mancall et al., 2001). No wonder the South rose in armed resistance to protect its enormous investment.

Individual characteristics
Prices reflect the characteristics of particular slaves. Studies of ancient Rome, fifteenth-century Spain and Portugal, and the antebellum US South all reveal that the prices of slaves varied by their sex, age, skill level, and physical condition (Fogel and Engerman, 1974; Schmitz and Schaefer, 1981; Phillips, 1985; Fogel, 1989; Friedman and Manning, 1992; Newland and San Segundo, 1996). Important individual features also included temperament and childbearing capacity for females. In addition, the supply of slaves, demand for products produced by slaves, and seasonal factors helped determine market conditions and therefore prices.

Prices for both male and female slaves tended to follow similar life-cycle patterns. Infant slaves sold for a positive price in the antebellum South because masters expected them to live long enough to make the initial costs of raising them worthwhile. Prices rose through puberty as productivity and experience increased. In nineteenth-century New Orleans, for example, prices peaked at about age 22 for females and age 25 for males (Kotlikoff, 1979). In the Old South, boys aged 14 sold for 71 per cent of the price of 27-year-old men, whereas girls aged 14 sold for 65 per cent of the...
price of 27-year-old men. After the peak age, prices declined slowly for a
time, then fell off rapidly as slaves’ ability to work disappeared. Girls cost
more than boys, up to age 16 in Brazil, Cuba, and the US and up to age
20 in Peru. The genders then switched places in terms of value. Compared
to men, women were worth 90 to 95 per cent as much in Cuba, 80 to 90
per cent as much in the US and West Indies, and 70 to 80 per cent as
much in Brazil (Mintz, 1974; Engerman and Genovese, 1975; Margo and
Steckel, 1982; Fogel, 1989; Moreno Fraginals et al., 1993; Newland and
San Segundo, 1996).

One characteristic in particular set females apart: their ability to bear
children. In the US, fertile females commanded a premium. But, in
medieval Italy, men who impregnated slaves had to pay their masters
compensation because of the high likelihood of childbed death. Genoan
men could even buy indemnification insurance against this possibility.
The mother-child link also proved important in a different way: people
sometimes paid premiums for intact families (Wahl, 1998).

Besides age and sex, skills helped determine a slave’s price. Premiums
paid for skilled workers interacted with mortality rates and rates of
depreciation for different characteristics. The US had a relatively low
slave mortality rate and skilled workers sold for premiums of 40 to 55
per cent. Slaveowners in areas with higher death rates could not reap
as large a benefit from their skilled workers, due to shorter life spans.
In Peru, the skill premium was about 35 per cent; in Cuba, about 10 to
20 per cent. Because the human capital associated with strength drops
off more quickly as people age than the human capital associated with
skills and training, prices for unskilled slaves in the Spanish colonies
fell more rapidly with a slave’s age than prices for skilled slaves (Fogel
and Engerman, 1974; Engerman and Genovese, 1975; Newland and San
Segundo, 1996).

Physical traits, mental capabilities, and other qualities contributed to
price differentials as well. Crippled and chronically ill slaves sold for deep
discounts. Slaves who proved troublesome – runaways, thieves, layabouts,
drunks, slow learners, and the like – also sold for lower prices. Taller
slaves cost more, perhaps because height acts as a proxy for nutritional
status. In New Orleans, light-skinned females (who enjoyed greater popu-
larity as concubines) sold for a 5 per cent premium (Kotlikoff, 1979; Fogel,

One pricing variant appeared in the West Indian ‘scramble.’ Here,
owners and agents devised a fixed-price system, dividing slaves into four
categories, penning them up accordingly, and assigning a single price per
pen. Potential buyers then jumped into the pens, attempting to pick off the
best prospects for the given price (Dunn, 1972).
Market conditions

Slave prices fluctuated with market conditions as well as with individual characteristics. Supply factors mattered, for example. Slave prices dropped dramatically in fourth-century Egypt when the sale of babies became legal. In the Old World, slave prices rose sharply after the Black Death decimated the population, particularly the servile portion (Meltzer, 1993). US slave prices fell around 1800 as the Haitian revolution sparked the movement of slaves into the Southern states. Less than a decade later, slave prices climbed when the international slave trade was abolished, cutting off legal external supplies.

Many Southern slaveholders actually supported closing the Atlantic trade because the resulting reduction in supply drove up prices of slaves already living in the US and, hence, their masters’ wealth. US slaves had high enough fertility rates and low enough mortality rates to reproduce themselves, so Southerners did not worry about having too few slaves to go around. Unlike elsewhere in the New World, the South did not require constant infusions of immigrants to keep its slave population intact. In fact, by 1825, 36 per cent of the slaves in the Western hemisphere lived in the US (Fogel, 1989).

Demand helped determine prices as well. In most slave societies, the demand for slaves derived from the demand for the commodities and services that slaves provided. Changes in slave occupations and variability in prices for slave-produced goods therefore created movements in slave prices. For example, a slave cost about a year’s keep in early Athens, but prices rose significantly as the use of slaves expanded to include managerial and civil-service work (Westermann, 1943). As slaves replaced increasingly expensive indentured servants in the New World, their prices went up. In the period 1748 to 1775, slave prices in British America rose nearly 30 per cent (Menard, 1977; Galenson, 1984; Grubb, 1994). As cotton prices fell in the 1840s, Southern slave prices also fell. But, as the demand for cotton and tobacco grew after about 1850, the prices of slaves increased as well (Fogel and Engerman, 1974). The connection between commodity and slave prices is not confined to the US South. Some scholars have speculated that abolition in Cuba occurred because sugar prices had fallen too low to make slavery worthwhile (Moreno Fraginals et al., 1993).

Demand sometimes had to do with the time of year a sale took place. For example, slave prices in the New Orleans market were 10–20 per cent higher in January than in September (Kotlikoff, 1979). Why? September was a busy time of year for planters: the opportunity cost of their time was relatively high. Prices had to be relatively low for them to be willing to travel to New Orleans during the harvest.

Differences in demand across regions led to transient regional price
differences, which in turn meant large movements of slaves. Yet because planters experienced greater stability among their workforce when entire plantations moved, 84 per cent of slaves were taken to the lower South in this way rather than being sold piecemeal (Tadman, 1990; Pritchett, 1997).

One additional demand factor loomed large in determining slave prices: the expectation of continued legal slavery. As the American Civil War progressed, slave prices dropped dramatically because people could not be sure that the peculiar institution would survive. In New Orleans, prime male slaves sold on average for $1381 in 1861 and for $1116 in 1862. Burgeoning inflation meant that real prices fell considerably more. Not surprisingly, by war’s end slaves sold for a small fraction of their 1860 price (Kotlikoff, 1979; Wahl, 1998).

Profitability of ancient and antebellum slavery
Slavery was a profitable enterprise, at least in antiquity and in the New World. As classical scholar Moses Finley (1961) put it, Greek and Roman slaveowners went on for centuries believing they were making profits – and spending them. Americans and West Indians found slaveowning lucrative as well (Dunn, 1972; Fogel and Engerman, 1974; Higman, 1976; Solow and Engerman, 1987). Slavery never generated superprofits, because people always had the option of putting their money elsewhere. Nevertheless, investment in slaves offered a rate of return – about 10 per cent – that was comparable to returns on other assets (Fogel, 1989).

That slavery in the American South was profitable seems almost obvious. Yet scholars have argued furiously about this matter. On one side stand antebellum writers such as Hinton Rowan Helper (1857) and Frederick Law Olmstead (1861), and contemporary scholars like Eugene Genovese (at least in his early writings), who speculated that American slavery was unprofitable, inefficient, and incompatible with urban life. On the other side are those who contend that slavery was profitable and efficient relative to free labor and that slavery suited cities as well as farms, industry as well as agriculture (Yasuba, 1961; Starobin, 1970; Aitken, 1971; Fogel and Engerman, 1974; Goldin, 1976; Barzel, 1977; Dew, 1991 and 1994). These researchers stress the similarity between slave markets and markets for other sorts of capital.

The significance of Time on the Cross
Perhaps the most controversial book ever written about American slavery is Robert Fogel’s and Stanley Engerman’s Time on the Cross (1974). These men were among the first to use modern statistical methods, high-speed computers, and large datasets to answer a series of empirical questions
about the economics of slavery. Building on earlier work by Alfred Conrad and John Meyer (1958 and 1964), Fogel and Engerman used data from probate and plantation records, invoices from the New Orleans slave-sale market, coastwise manifests for shipped slaves, and manuscript census schedules to find profit levels and rates of return. Fogel and Engerman pioneered the use of an index they called ‘total factor productivity,’ which measures the ratio of output per average unit of all inputs.

Among Fogel’s and Engerman’s findings are these: antebellum Southern farms were 35 per cent more efficient overall than Northern ones and slave farms in the cotton South were 28.5 per cent more efficient than free farms. Moreover, slavery generated a rate of economic growth in the US South comparable to that of many European countries. Fogel and Engerman also discovered that, because slaves constituted a considerable portion of individual wealth, masters fed and treated their slaves reasonably well. Although some evidence indicates that infant slaves suffered much worse conditions than their freeborn counterparts, juvenile and adult slaves lived in conditions similar to – sometimes better than – those enjoyed by many free laborers of the same period (see also Steckel, 1986a and 1986b).

Despite criticism (notably a collection of articles entitled *Reckoning with Slavery* edited by Paul David and others, 1976), *Time on the Cross* and Fogel’s subsequent *Without Consent or Contract* (1989) have solidified the economic view of Southern slavery. Even Eugene Genovese (1989), long an ardent proponent of the belief that Southern planters held slaves for prestige value, finally acknowledged that slavery was probably a profitable enterprise. Much like any businessmen, New World slaveowners responded to market signals – adjusting crop mixes, reallocating slaves to more profitable tasks, hiring out idle slaves, and sometimes selling slaves for profit. One instance well-known to labor historians shows that contemporaneous free labor thought that urban slavery may even have worked too well: workers at the Tredegar Iron Works in Richmond, Virginia, went out on their first strike in 1847 to protest the use of slave labor at the Works (Fogel, 1989).

*Labor practices contributing to profitability*

The value of Southern slaves arose in part from the value of labor generally in the antebellum US. Scarce factors of production command economic rent, and labor was by far the scarcest available input in America.

But a large proportion of the reward to owning and working slaves results from innovative labor practices (Fogel and Engerman, 1974; Metzer, 1975; Licht, 1983). Certainly, the use of the ‘gang’ system in agriculture contributed to profits in Roman times as well as in later time periods. Treating people like machines pays off handsomely. In the West
Indies, for instance, sugar slaves worked in three separate gangs: one harvesting the crop, a second cleaning up after the first, and a third bringing water and food to the others (Sheridan, 1947; Dunn, 1972; Higman, 1976; Menard, 2006). Planters in the US South also used the gang system to their advantage.

Integral to many gang-oriented operations across the Americas were plantation overseers, who served as agents for oft-absent plantation owners. Overseers certainly had some authority so they could elicit work from their charges (Scarborough, 1966). Yet law and custom alike circumscribed overseers’ abilities to administer correction, because slaves represented such a large chunk of their masters’ wealth (Wahl, 1998). This balance between authority and accountability worked well enough to turn handsome profits for many planters, particularly those who entrusted reliable slave drivers as liaisons. By the mid-1820s, slave managers actually took over much of the day-to-day operations in the West Indies (Dunn, 1972; Higman, 1976).

Antebellum slaveowners experimented with a variety of other methods to increase productivity. Masters developed an elaborate system of ‘hand ratings’ in order to improve the match between the slave worker and the job. Slaves could sometimes earn bonuses in cash or in kind, or quit early if they finished tasks quickly. Slaves – in contrast to free workers – often had Sundays off. Some masters allowed slaves to keep part of the harvest or to work their own small plots. In places, slaves could even sell their own crops and produce. To prevent stealing, however, many masters limited the crops that slaves could raise and sell, confining them to corn or brown cotton, for example (Wahl, 1998).

Masters capitalized on the native intelligence of slaves by using them as agents to receive goods, keep books, and the like (Wahl, 1998). In some societies – for example, ancient Rome and her offspring, antebellum Louisiana – slaves even had under their control a sum of money called a peculium. This served as a sort of working capital, enabling slaves to establish thriving businesses that often benefited their masters as well (Schafer, 1994). Yet these practices may have helped lead to the downfall of slavery, for they gave slaves a taste of freedom that left them longing for more.

**The potential profits from reproduction**

In the US, masters profited from reproduction as well as production. Southern planters encouraged slaves to have large families because US slaves lived long enough (past about age 27) to generate more revenue than cost over their lifetimes. But researchers have found little evidence of slave breeding; instead, masters encouraged slaves to live in nuclear or
extended families for stability (Fogel and Engerman, 1974). Lest one think sentimentality triumphed on the Southern plantation, one need only recall the willingness of most masters to break up families by sale if the bottom line was big enough.

In contrast to US slaves, the average West Indian slave did not live past his or her mid-twenties. Masters in Jamaica, Haiti, Barbados, and Trinidad therefore behaved differently, establishing much longer periods of breastfeeding (which helped provide natural protection against subsequent pregnancy). As a result, birth rates among West Indian slaves were relatively much lower (Sheridan, 1947; Dunn, 1972; Engerman and Genovese, 1975; Higman, 1976; Solow and Engerman, 1987).

Society’s role in the profitability of antebellum slavery
The great sugar plantations in the eighteenth century and cotton plantations in the nineteenth were the largest privately owned enterprises of their time, and their owners among the richest men in the world. During the three centuries of New World slavery, slave-produced goods – especially sugar – dominated world trade. Accordingly, slaveowners were not the only ones to reap rewards. French, Spanish, Portuguese, Dutch, and Danish citizens also thrived on buying from or selling to slave colonies. So too did cotton consumers who enjoyed low prices and Northern entrepreneurs who helped finance plantation operations (Fogel, 1989; Menard, 2006). As James de Bow said in reply to a query by the London Times in 1860, without slavery ‘ships would rot at [the New York] docks; grass would grow in Wall Street and Broadway, and the glory of New York . . . would be numbered with the things of the past’ (quoted in Foner, 1941, p. 4).

Society at large shared in maintaining the machinery of slavery as well as enjoying its yields (Wheeler, 1837; Goodell, 1853; Stroud, 1856; Hurd, 1858; Wiecek, 1977; Finkelman, 1988, 1989a; Wahl, 1998). All Southern states save Delaware passed laws to establish citizen slave patrols that had the authority to round up suspicious-looking or escaped slaves, for example. Patrollers were a necessary enforcement mechanism in a time before standing police forces were customary. Essentially, Southern citizens agreed to take it upon themselves to protect their neighbors’ interests as well as their own so as to preserve slavery as an institution.

Northern citizens often worked hand-in-hand with their Southern counterparts, returning fugitive slaves to masters either with or without the prompting of national and state law. Yet not everyone was so civic-minded. As a result, the profession of ‘slave-catching’ evolved – often highly risky (enough so that insurance companies denied such men life insurance coverage) and just as often highly lucrative (Campbell, 1968; Wahl, 1998).
Labor-force transitions and profits from slavery

One potent piece of evidence supporting the notion that slavery provides pecuniary benefits is this: slavery often gives way to other forms of organizing the labor force when the costs and risks of maintaining slaves become too large. In Europe, for example, serfdom evolved in part as a way of shifting some of the risks of poor crop yields away from masters (Bloch, 1975; Bush, 1996). A similar system arose within Africa in the nineteenth century. Slaves paid their masters for the right to work on their own; in exchange, masters no longer paid for the slaves’ upkeep (Watson, 1980). The Spanish Crown for a time favored a system of forced labor called encomienda, whereby the indigenous population could not be bought, sold, rented, bequeathed, or removed from the area. Scholars have speculated that this form of coercion, relative to outright slavery, reduced threats to the security of the Crown’s interest (Yeager, 1995). Thus, other types of labor take the place of slaves when slavery costs too much.

In like fashion, slavery replaces other labor when it becomes relatively cheaper. In the early US colonies, for example, indentured servitude was common. As the demand for skilled servants (and therefore their wages) rose in England, the cost of indentured servants went up in the colonies. At the same time, second-generation slaves became more productive than their forebears because they spoke English and did not have to adjust to life in a strange new world. Consequently, the balance of labor shifted away from indentured servitude and toward slavery (Galenson, 1982, 1984, and 1986; Grubb, 1985 and 1994; Engerman, 1992). Georgia offers a compelling example. Its original 1732 charter prohibited ownership of black slaves. Yet by 1750 the trustees of the new colony had to relax the prohibition because Georgia growers simply could not compete with producers elsewhere who utilized lower-cost slave labor (Grindle, 1990).

Profitability and race

One element that contributed to the profitability of New World slavery was, for several reasons, the African heritage of the slaves. Africans, more than native people, were accustomed to the discipline of agricultural practices and knew metalworking. Some scholars surmise that Africans, relative to Europeans, could better withstand tropical diseases and, unlike native Americans, also had some exposure to the European disease pool (Coelho and McGuire, 1997).

Perhaps the most distinctive feature of Africans, however, was their skin color. Because they looked different from their masters, their movements were easy to monitor. Denying slaves education, property ownership, contractual rights, and other things enjoyed by those in power was simple: one need only look at people to ascertain their likely status. Using color
was a low-cost way of distinguishing slaves from free persons. For this reason, perhaps, early colonial practices that freed slaves who converted to Christianity quickly faded away. Deciphering true religious beliefs is far more difficult than establishing skin color. Other slave societies have used distinguishing marks like brands or long hair to denote slaves, yet color is far more immutable and therefore better as a cheap way of keeping slaves separate.

Among those who profited from slavery were men who worked as slave catchers and received fees for returning escaped slaves to their masters. Because skin color was the principal identifying mark, however, free blacks also faced the horrifying possibility of capture and sale.

**Efficiency of antebellum slavery**

So New World slavery was profitable; was it an efficient way of organizing the workforce? On this question, considerable controversy remains. Slavery might well profit masters, but only because they exploit their chattel. What is more, slavery could have locked people into a method of production and way of life that might later have proven burdensome.

Fogel and Engerman (1974) claim that slaves kept about 90 per cent of what they produced. Because these scholars also found that agricultural slavery was 35 per cent more efficient than family farming in the North, they argue that slaves actually may have shared in the overall benefits resulting from the gang system. Other scholars contend that slaves in fact kept less than half of what they produced and that slavery, while profitable, certainly was not efficient (Vedder, 1975; Ransom and Sutch, 1977, 1988).

Gavin Wright (1978, 2006) critiques the work of Fogel and Engerman by focusing on the exceptional nature of the crop year they used to calculate their statistics and by using alternative data to attack their estimates of total factor productivity. Wright calls attention as well to the difference between the short run and the long run. He notes that slaves accounted for a very large proportion of most masters’ portfolios of assets. Although slavery might seem an efficient means of production at a point in time, it ties masters to a certain system of labor that may not adapt quickly to changed economic circumstances.

Wright’s argument has some merit. Although the South’s growth rate compared favorably with that of the North in the antebellum period, a considerable portion of wealth was held in the hands of planters – and much of that ‘wealth’ depended upon the accounting convention of treating the human capital embodied by slaves as personal property owned by slaveholders. The consequence was a far different portfolio from that of the North, where immobile land was the largest investment. Consequently,
commercial and service industries lagged in the South. The region also had far less rail transportation and internal improvements than the North (Wahl, 2007).

Yet many plantations used the most advanced technologies of the day, and certain innovative commercial and insurance practices appeared first in transactions involving slaves (Wahl, 1998). In Cuba, planters were behind the move to construct railroads (Moreno Fraginals et al., 1993). Slaveowners led in using new inventions, such as the circular saw (Wahl, 1998). What is more, although the South fell behind the North and Great Britain in its level of manufacturing, it compared favorably to other advanced countries of the time. In sum, no clear consensus emerges as to whether the antebellum South created a standard of living comparable to that of the North or, if it did, whether it could have sustained it.

**Profitability and efficiency of slavery elsewhere**

What of the profitability and efficiency of slavery in places and times other than the ancient world and the antebellum Americas? Much less empirical economic work exists on slavery elsewhere, although Orlando Patterson (1982) and Eugene Genovese (1974) portray slavery in Islamic societies as nonproductive.

Yet to the extent that slaves perform domestic and other chores, they free masters from drudgery and therefore confer some benefits, though not necessarily market profits. Even slaves who appear merely ornamental must provide some pleasure to the masters, or else they would go free. We can still consider slavery an economic enterprise simply because it provides more benefits to their owners – pecuniary or otherwise – than costs.

**Slavery in modern times**

Rising British sentiment against slavery culminated in the *Somerset* case, which outlawed slavery in England in 1772.¹ Britain and the US abolished the international slave trade in 1807–8; Britain freed slaves in its colonies (except India) in 1833, with full emancipation in 1838. Slavery in the US officially disappeared by the end of the American Civil War in 1865.

Abolition came later elsewhere, often accompanied by a rise in other forms of servitude (Watson, 1991). Eastern Europe and Russia kept slavery alive into the late nineteenth century. In 1890, all major European countries, the US, Turkey, Persia, and Zanzibar signed the General Act of Brussels in an attempt to suppress slavery. Forty years later, an international labor convention acted to outlaw forced labor in the former Ottoman and German colonies. In 1948, the UN General Assembly declared that all forms of slavery and servitude should be abolished (Bush, 1996).
Yet slavery in Southeast Asia, the Arabian peninsula, and parts of Africa continued well into the twentieth century (Watson, 1980; Lovejoy, 1983; Klein, 1990 and 1993). Perhaps the saddest legacy of American slavery is that the system established to supply the New World with slaves also shaped society at home. Some scholars believe that slavery was endemic to Africa, others date its origins to medieval Muslim society or the later European infiltration. Regardless of beginnings, slavery within Africa burgeoned along with the Atlantic trade – in 1600 Africa had a minority of the world’s slaves, in 1800 the overwhelming majority. The Great Scramble for Africa spread slavery further. Regrettably, the tragedy continues: Angolan slaves fought bloodily for freedom in 1961, Mauritania kept slavery legal until 1980, Nigeria still had slave concubinage in the late 1980s; and numerous African regions actively practice slavery today.

Some of the harshest forms of slavery have arrived only recently. Modern weaponry, increased population density, and mass communication and transportation technology have made it that much easier to capture and move purported enemies as well as to incite one’s allies to do the same. The classic mechanism of modern slavery, patterned after the practices of Nazi Germany and the Soviet Union, is this: Officials in power arrest suspected opponents of the current political regime, or those considered racially or nationally unfit, and throw them into forced-labor camps to work under terrible conditions.

Unlike slaves in earlier societies, the unfortunates who landed in Nazi and Soviet concentration camps were not privately owned and traded in open markets. Rather, they served as property of the state, sometimes to be rented out to private interests.

Modern slaves consequently represent something far different than their historic counterparts. From pre-classical times through the nineteenth century, masters – including public entities – typically viewed their slaves as productive investments, as bookkeeping entries in their wealth portfolios, as forms of valuable capital. Slaves in these circumstances could often count on minimal food, shelter, and clothing, and time for rest and sleep. This was true even for government-owned slaves, because these slaves were typically used in money-making enterprises that just happened to be government-run, and they could potentially be sold to private owners. Not so for the ‘publicly owned’ slaves of the twentieth century. Because these people were ‘acquired’ at very low cost with public money and served primarily as political symbols, their masters had little incentive to care for them as assets.

To be sure, when Nazi Germany needed labor to fuel production of her war machinery, the country turned to the inmates of concentration camps. Likewise, the Soviets rounded up peasants to work on public projects and
mineral extraction. Various regions across Africa, Asia, America, and Europe have done the same. Yet these sorts of ‘slaves’ are often worth more dead than alive. Killing one’s political adversaries makes the state that much easier to run. Exterminating those labeled as unfit ‘cleanses’ society – in a truly twisted sense of the word – and binds together the ‘chosen.’ Accordingly, modern forms of mass slavery seem far different institutions than those of earlier times.

Re-examining the economics of slavery

Despite differences between modern slavery and its earlier counterparts, slavery in any time and place cannot be thought of as benign. In terms of material conditions, diet, and treatment, slaves in some societies may have fared as well as the poorest class of free citizens. Yet the root of slavery is coercion. By its very nature, slavery involves involuntary transactions. Slaves are property, whereas free laborers are persons who make choices (at times constrained, of course) about the sort of work they do and the number of hours they work.

The behavior of American ex-slaves after abolition clearly reveals that they cared strongly about the manner of their work and valued their non-work time more highly than masters did. Even the most benevolent former masters in the US South, for instance, found it impossible to entice their former chattels back into gang work, even with large wage premiums. Nor could they persuade women back into the labor force: many female ex-slaves simply chose to stay at home (Fogel and Engerman, 1974).

So is slavery an economic phenomenon? Yes, but only because slave societies fail to account for the incalculable costs borne by the slaves themselves.

Note

Bibliography
Bailey, Ronald W. (1990), ‘The Slave(ry) Trade and the Development of Capitalism in...

Bancroft, Frederic (1931), Slave Trading in the Old South, New York: Ungar.


Bloch, Marc (1975), Slavery and Serfdom in the Middle Ages, Berkeley, University of California Press.


The economics of slavery


Tadmor, Michael (1990), *Speculators and Slaves*, Madison: University of Wisconsin Press.


