The Economics of Emancipation

The Economics of Emancipation

INTRODUCTION

THIS paper illuminates one particular aspect of the theme of this session, property rights in man. It will deal with various emancipation plans: those actually enacted in various slave societies; those discussed by legislators who debated slave and anti-slave proposals; and those which, being purely fictional, have become part of counterfactual history.

The form which emancipation of slaves took in different slavocracies to some extent reflected their view of property rights in man. In many societies slaves were recognized as property, and, therefore, the freeing of bondsmen without full compensation to their owners was considered illegal. For others, slavery was immoral, and payment to manumit slaves was considered a de facto recognition of the institution of slavery. Some forms of compensated emancipation can also be viewed as early precedents for the doctrine of eminent domain.

In addition one can construe the form which emancipation took in different societies as a reflection of the relative strengths of the slave and non-slave holding classes. This interpretation makes property rights an endogenous variable. Empirical evidence suggests that the smaller the percentage of slave owners relative to the electorate, the less the degree of compensation. In fact, many gradual abolition schemes can be viewed as attempts to lessen the strength of the slave holding class so that noncompensated, immediate abolition could be instituted.

Almost every slave society in the Western hemisphere terminated

I have benefited from presenting versions of this paper at a summer conference on "The Application of General Equilibrium Models to Topics in Economic History" sponsored by the Mathematical Social Science Board of the NSF, the University of Wisconsin Economic History Workshop, and the Queen's University faculty seminar. I would like to thank the following members of these seminar groups and other helpful persons: Stanley Engerman, Ronald Fielding, Isaac Fox, Alan Green, Frank Lewis, Donald McCloskey, Thomas Skidmore and R. Craig West for their comments on this manuscript. Without demeaning the contributions of the others, I would like to single out Frank Lewis and Stanley Engerman for their many insights. The Graduate School of the University of Wisconsin supported this research financially, and NSF Grants GS-27282 and GS-3262 enabled the collection of slave price data used in this paper.

slavery with some form of legislative emancipation. The schemes varied in many respects. Some were gradual and others immediate in nature. That is, under certain plans slaves were emancipated at once, although others were gradual because they either provided for the creation of apprenticeships or stipulated that the children of slaves were to be freed after a specified period of service. Many schemes provided for full monetary compensation to the owners of slaves; some had partial compensation; and still others entailed outright expropriation. For many slavocracies emancipation was the direct result of abolitionist sentiment, although in some cases it was the culmination of years of slave unrest. This paper will briefly review the emancipation schemes enacted in the Western hemisphere prior to the adoption of the Thirteenth Amendment in the United States as background for a discussion of the American slave South. The schemes which will be discussed represent alternatives available to the Union prior to the outbreak of the Civil War. This review will not determine why the various schemes differed, but will instead provide the foundation for the hypothetical schemes to be proposed for the Union in 1860.

A BRIEF REVIEW OF EMANCIPATION SCHEMES

The American North led emancipation in the Western hemisphere with Vermont's proclamation of abolition in 1777.[1] Massachusetts (including Maine) followed close behind and, unknowingly, wrote emancipation into its state constitution. This constitution, as well as the Declaration of Independence, was interpreted by the Massachusetts courts as freeing that state's slaves. Although the slave trade in Massachusetts was declared illegal in 1788, the confusion surrounding court decisions enabled many Massachusetts owners to sell their slaves in the South, thereby avoiding capital loss due to abolition.[2]

Those northern states with the largest numbers of slaves, Pennsylvania, New York and New Jersey, all adopted gradual abolition

[1] See Arthur Zilversmit, *The First Emancipation: The Abolition of Slavery in the North* (Chicago: The University of Chicago Press, 1967) for an excellent discussion of the anti-slavery movement in the North and the slave legislation, proposed and enacted, which it furthered.

[2] See George H. Moore, *Notes on the History of Slavery in Massachusetts* (New York: Negro Universities Press, 1968; originally published, D. Appleton and Co., 1866) for an excellent summary of the events culminating in the emancipation of Massachusetts' slaves.

with Pennsylvania leading the group in 1780. The Pennsylvania law stipulated that all children of slaves would be freed at age twenty-eight. The Supreme Court later interpreted this law as implying that slavery would last only one more generation in Pennsylvania. That is, the children of these emancipated slave children would automatically be freed even if both their parents were slaves at the time of birth.[3]

The New York law provided that all Negro children born after 1799 were free after serving their mother's masters for twenty-eight years if male and twenty-five if female. New Jersey had similar provisions and declared that males would be freed after twenty-five and females after twenty-one years of service if born after 1804. This difference in age for the freeing of male and female slaves in the New York and New Jersey legislation can be rationalized in two ways. First, it could represent the desires of the legislators to free slave children at the age at which they would begin their own families. This implies that females married at an earlier average age than did males.

Another way of viewing this choice of age is in terms of minimizing the number of abandoned children. If the objective of the legislators was to free slave children at the earliest possible age under the constraint that there be few orphaned slave babies, they would choose an age such that the birth price of these children would be, on average, zero.[4] Using data for another region I find that the years outlined by the New York and New Jersey acts conform well to this theory. It can be shown that the emancipation years stipulated in the New York act imply prices at birth of between $1.00 and $3.00

[3] The Supreme Court in Miller *v.* Dwilling (1826) declared that, "no child can be held to servitude till the age of twenty-eight . . . but one whose mother was . . . a slave at the time of its birth . . . [implies that] the legislature of Pennsylvania though it abolished slavery for life, established . . . a servitude . . . which may continue . . . to the end of the world." The Supreme Court, therefore, decided that "the child of one bound to serve to the age of twenty-eight, was not bound . . . for the same period; but was absolutely free." See Helen T. Catterall, editor, *Judicial Cases Concerning American Slavery and the Negro* (Washington, D.C.: Carnegie Institution of Washington, 1936), IV, Cases from the Courts of New England, the Middle States, and the District of Columbia, p. 282.

[4] If the price at birth were less than zero, the owner should choose to abandon the child, as the maintenance costs during the early period of development are greater than the stream of benefits from the later working stage. A positive price would insure a low rate of abandonment, but would also involve a later age for freedom. Therefore, a zero price would accomplish both a minimal number of orphans and an early age at which freedom would be guaranteed. This interpretation of the New York and New Jersey laws was suggested to me by Stanley Engerman.

for male and female infants, instead of the previously prevailing rate of about $25 per newborn.[5] Because female slaves were more productive in their teens than their male counterparts[6] the earlier emancipation age for females is consistent with this rationalization of the gradual abolition schemes.

Both hypotheses outlined above arrive at the same conclusion concerning the approximate ages for emancipating male and female slaves. Some direct evidence supports the latter view. The New York legislature was greatly concerned about the social problem of orphaned slave children. The 1799 act provided for the public care of these abandoned youths stating that masters would be reimbursed up to $3.50 per month for the support of children who otherwise would be abandoned. In some sense, this provision made gradual abolition more palatable to the slaveowners by enabling, in disguised form, some compensation.

The costs to the slaveowners[7] of the gradual abolition programs outlined above were small, compared to those of immediate emancipation. The loss to slaveowners is the reduction in the price of female slaves due to the owner's not having property rights to the full income stream from the production of children. If the birth price of children becomes zero by the choice of the age at which freedom is granted, the entire rents from the breeding capabilities of females also become zero. The breeding portion of a female slave's price varied with her age. It was between one half and one quarter the price of a slave girl under ten years of age, and between two tenths and one tenth the price of a grown female between twenty and thirty years old.[8]

[5] The calculations were performed using Maryland slave price data for the same period. The prices at age 25 and 28 were discounted back to year 0 (birth) and these were subtracted from the prices at birth. The resulting figure is the price at birth of a slave whose services are guaranteed for 25 years (for a female) or 28 years (for a male). A ten percent discount rate is used because this appears to have been the internal rate of return on slave owning.

[6] See Robert W. Fogel and Stanley L. Engerman, "The Market Evaluation of Human Capital: The Case of Slavery," unpublished paper presented to the Annual Cliometrics Conference, Madison, Wisconsin, April, 1972 for a discussion of the differences in slave male and female age-net hire rate profiles. They find that female children begin to earn a positive yearly net hire at age 7½, whereas male children produce positive net earnings at age 8½. Females continue to be more productive than males until they are nineteen years of age. After that point, male slaves produce substantially more net income than do females.

[7] If the schemes were compensated, this would refer to the costs to the taxpayers.

[8] The division of female price between the value of the child-bearing capacity and the value of field productive capacity has been computed by R. Fogel and S. Enger-

Gradual abolition had many beneficial aspects. The costs to slaveowners were low, and it appeared to foster a slow and easy transition for society. But gradual abolition had many drawbacks. It was effective in achieving the abolitionists' goal only if it was not anticipated and if the slave trade between the North and South was closed. If the bill was anticipated, owners could sell their bondsmen to slave areas before an embargo on trade could be declared. In New York, for example, data suggest that the 1799 abolition plan was anticipated by some slaveowners, but that many more took advantage of the loopholes in the gradual abolition law to sell their slaves in the South. It is entirely possible that only 12,000 New York State slaves were freed by abolition legislation, whereas 24,000 were sold to slave states farther South.[9]

In addition to the smuggling problem, which was particularly prominent in the North, gradual abolition in any area would encourage more intensive use of slaves during their productive period. In the New York, New Jersey and Pennsylvania cases, gradual abolition involved the emancipation of slave children after a period of service. These children were probably worked harder than if their owners had property rights to their lifetime earnings streams. In 1817 a bill was passed in New York providing for the freedom of all slaves born before 1799 as of 1827. This must surely have encouraged masters to work their slaves more intensively during the ten years of remaining service. Announced or anticipated gradual abolition of this type certainly would be against the interests of abolitionists, and, of course, of the slaves.

It is perhaps due to smuggling and the "working of slaves to

man and is contained in Fogel and Engerman, "The Market Evaluation of Human Capital," Charts V and VI.

[9] The Federal Census reveals that in 1790 there were 21,324 slaves in New York State, and 20,343 in 1800. This indicates a drop of about 5,000 slaves, if a 20 percent rate of net increase is allowed for during the ten year period. This decline in the slave population was partially due to slaveowner anticipation of the 1799 act. The decline in the slave population during the period 1800 to 1820 is even more dramatic. The gradual abolition bill was not actually effective in freeing slaves during this period, although it may have engendered the manumission of certain slaves due to mounting social pressure. The 1800 slave population in New York was 20,343, but the 1820 figure is 10,088. Using again a 20 percent net rate of increase yields 19,205 slaves who were either manumitted, abandoned children, or smuggled South to slave states. One student of New York slave history believes that independent evidence substantiates the latter hypothesis. He cites as evidence that the gains to be made in smuggling an able-bodied slave South were £40 "after commissions, insurance costs and shipping charges were paid." Edgar J. McManus, *A History of Negro Slavery in New York* (New York: Syracuse University Press, 1966), p. 170. Certainly after 1817, when the immediate abolition of slaves was guaranteed in ten years, the gains to be made by circumventing the anti-slave-trade laws were great.

death" that gradual abolition was almost always followed closely behind by immediate emancipation.[10] As suggested in the Introduction to this paper, gradual abolition may also have been used as a way of diluting the slave-owning class so that full emancipation could be enacted with less resistance. New York passed its total emancipation bill in 1817, although the act freed slaves ten years hence. Pennsylvania abolitionists tried to pass a similar piece of legislation, but failed, and slavery was terminated more gradually in that state. New Jersey, in 1846, ended slavery by changing the status of all slaves to that of apprentice.

Emancipation in the British West Indies was sparked by British abolitionists, although slave revolts in Jamaica contributed to the freeing of West Indian bondsmen. The 1820's marked the beginning of a full-scale anti-slavery campaign in Parliament, and legislation in 1824 was passed prohibiting the transportation of slaves from one British colony to another. In 1834, after much debate, the British government put into effect an emancipation plan which provided that field hands would be completely free in six years and non-field hands in four. During the interim they were to work as apprentices to their former masters for forty-five hours a week. They were to be given their customary allowances, and any money they earned in overtime could be used to purchase their remaining years of service.[11] Twenty million pounds was allocated by the Parliament from the public funds of the United Kingdom as an indemnity grant to the slaveowners.[12]

The abolition of slavery in Venezuela was a by-product of the wars for independence of that nation. After independence, in 1821, the Cúcuta Slave Law was passed which provided for the free birth of all slave children, although these minors had to serve their mothers' masters for eighteen years. In 1830 this age was increased to twenty-one, and later the government further extended servitude to age twenty-five. Specific taxes were collected by the government

10 This would, of course, increase the costs to slave owners of gradual emancipation. The increased cost would be the discounted value of all remaining productive services from male and female (not including breeding rights as these have been subtracted out before) slaves.

11 The detail of these provisions, as well as the personnel which the British sent to secure them legally for the slaves, indicate that Parliament knew that gradual abolition could involve the working of slaves more intensively. This law was obviously designed to accomplish the abolitionists' goals without the hardship which the Northern gradual abolition laws may have entailed.

12 This sum was probably not sufficient fully to compensate the owners, and represented about one-twentieth of British total national product in the 1830's.

for the manumission of a number of slaves every year, and this together with gradual abolition served to decrease the slave population in Venezuela. In 1854, after depression, discontent, and revolution, an abolition law was passed providing for the freedom of all slaves and full compensation to their owners.[13]

The emancipation schemes outlined above were all effected prior to the American Civil War and all represented possible avenues of solution to the slave problem in the American South. Of Western hemisphere countries only Cuba and Brazil freed their slaves after the passage of the Thirteenth Amendment. In both, gradual emancipation was instituted and was followed about twenty years later by complete abolition. Therefore, in both countries, slaveowners had the opportunity of working their chattel harder during their remaining years of servitude.

All the emancipation schemes described above involved balancing abolitionist and slave-owning interests. Even in most of the American North, where slaveowners were clearly in a minority, emancipation did not involve the complete confiscation of property. In fact, full abolition bills were passed in all these areas only after years of trying gradual abolition. A slow eroding of the slave-owning forces may have made complete freedom easier to push through the legislature. If, then, the American Civil War was caused in part by slavery, why didn't the Union choose one of the options suggested by the above comparative analysis?

The next section will outline the options that were available to the Union prior to 1861 and will analyze the costs associated with each. These options will be viewed in light of the previous comparative discussion and in terms of the debate on emancipation during the Thirty-seventh (Civil War) Congress.

THE OPTIONS AVAILABLE TO THE UNION IN 1860

Many of the options discussed below may not have been politically feasible in the years preceding the Civil War. In addition, some will doubt that these schemes were alternatives to battle.

[13] It is difficult to state whether or not there was full compensation, since payment was based on a schedule of prices set by law. See John V. Lombardi, *The Decline and Abolition of Negro Slavery in Venezuela: 1820-1854* (Westport, Connecticut: Greenwood Publishing Company, 1971), Appendix 1, "Tables Pertaining to Slaves and Manumisos," for information concerning the number of slaves emancipated from 1830 to 1854 and the compensation awards to slave owners through the 1854 Abolition Law. Emancipation in Venezuela is interesting because the slave population was very small and the slave owning class was rather minor compared to the free population, but compensation was awarded to slaveowners.

These issues are difficult to resolve. Nevertheless, a measurement of the effects of various abolition plans and a comparison of them with the realized costs of the Civil War can still provide useful information. In particular, such an exercise might add credence to the hypothesis that the costs of the war were not correctly anticipated and that for this reason emancipation was rejected by both sides in favor of what appeared to be a better alternative. This research might also serve to reject or substantiate a completely different thesis, that the North was rational in fighting the Civil War because its net benefits from winning were positive.[14]

The first option which will be considered is that of immediate emancipation with full compensation. Full compensation is required for this and the other schemes because it reflects the view of property rights held by the majority of the populace in 1860. Other than certain radical Republicans, few members of the Thirty-seventh Congress believed in the expropriation of slave property; most were in agreement that slaveowners must be fully compensated for their losses.[15] Lincoln, for one, felt quite strongly about the issue of compensation, and doubted the constitutionality of the Emancipation Proclamation because it did not provide compensation. Under this hypothetical emancipation scheme, the Federal government would issue to the states, and then the states to the slaveowners, bonds whose principal was equal to the value of the slaves.[16] Therefore the initial cost of such a program would be the capital value of all the slaves in the United States in 1860.[17] I have estimated the

[14] See, for example, Louis M. Hacker, *The Triumph of American Capitalism* (New York: Columbia University Press, 1947), for a complete discussion of this notion. This paper, though, does not attempt to assess the North's gains from victory in terms of redistributing income from the South to the North. Therefore, this work alone cannot lead to a rejection or acceptance of the "Beard-Hacker" thesis.

[15] Some might challenge this statement with the fact that most of the emancipation schemes discussed and enacted during the Thirty-seventh Congress provided for less than full compensation. For example, the District of Columbia bill appropriated $1 million for compensation to masters or an average of about $300 per slave. The Border State bill also allotted $300 for each slave freed. Although this was slightly less than one-half the price of slaves during 1860 for these areas, it must be remembered that these acts were wartime measures. District of Columbia slaveowners readily sold their slaves at these "low" prices, probably because they feared expropriation if the South won. In addition, many of the bills passed and debated provided for gradual abolition of slaves. Therefore, although the monetary compensation was less than the total value of the slave, the owner had a longer period of service than if emancipation was immediate.

[16] Since slavery was a state issue, the states would have to purchase the rights to the slaves with the Federal bonds.

[17] Since the slave region can be identified with a specific economic and regional group, there may be reasons for a political settlement to result in a compensation transfer greater than the sum of slave prices. This will be considered at a later point.

capital value of all slaves in 1860 to have been 2.7 billion 1860 dollars. This number was calculated using age-specific slave price data recently collected from southern probate records and slave bills of sale.[18]

The financing of so great a venture as the purchase of $2.7 billion worth of capital, when the gross national product was only $4.2 billion, would have required borrowing. In the emancipation schemes which were actually outlined by Congress during the years 1861 to 1863, thirty-year bonds, yielding from five to six percent were to be offered states fulfilling various criteria.[19] Similarly, in this exercise I shall assume that the government buys slaves from their owners with bonds that pay six percent[20] and are refunded, an equal amount each year, over a period of thirty years. If I assume that all persons, except ex-slaves, pay taxes to finance these bonds, refunding the bonds at a constant rate over the thirty-year period implies a per capita tax of $7.25 in 1860. This represents about five percent of per capita income for that year, with this percentage

---

In addition, all slaves are freed at once; therefore one does not have to consider the effects on price of an increasingly smaller stock of slaves. The Federal Government does not have to pay slave owners the area under the demand curve for slaves, but merely their price as slaves in 1860. This becomes clearer if one considers slaves as free men to be equivalent to slaves as slaves. As slaves are freed they become free laborers; therefore the supply function for slaves moves to the left but that for free laborers moves equally in the opposite direction. Thus, the price of workers does not change as slaves are freed.

[18] This capital value is about one billion 1860 dollars less than that computed by Louis A. Rose. See Louis A. Rose, "Capital Losses of Southern Slaveholders Due to Emancipation," *Western Economic Journal*, III (Fall 1964), 39-51. The prices for slaves used in the Rose estimate were partially based on those collected by U.B. Phillips. The lower price series which I have used resulted from a sample collected by R. Fogel and S. Engerman from the identical collection of New Orleans bills of sale which Phillips used. The Fogel and Engerman prices are about 20 percent lower for a "prime field hand" (a slave between the ages of 18 and 30) than those given by Phillips. Phillips' sample is biased upward for an unknown reason. Fogel and Engerman's detailed comments on this problem can be found in a forthcoming article.

[19] For example, the House version of Lincoln's border state bill provided that "'whenever the President of the United States shall be satisfied that any one of the states of Delaware, Maryland, Virginia, Kentucky, Tennessee or Missouri shall have emancipated [their] slaves . . .' he should cause to be delivered to such state 5 percent, 30 year bonds in an amount equal to $300 for each slave freed." Leonard P. Curry, *Blueprint for Modern America* (Nashville: Vanderbilt University Press, 1968), pp. 47-48. In addition, the House's Select Committee on Gradual Emancipation reported a bill in January 1863 which also authorized the President to issue 30 year, 5 percent bonds to Missouri when that state adopted immediate abolition. *Ibid.*, p. 53. Other bills provided for 6 percent, thirty year bonds. I have chosen the 6 percent figure to bias my costs upward slightly.

[20] One may wonder why the interest rate on the bonds is six percent although the internal rate of return on slaves was somewhat higher. The bonds are far less risky assets than the slaves, and if persons are risk averse a smaller rate of interest would be necessary to induce them to hold bonds instead of slaves in their portfolios.

declining during the thirty-year period because of the growth in both per capita income and population. If southerners are to be compensated for their tax burden too, the per capita cost would be $9.66 in 1860, with southerners receiving a transfer. Certainly, the slaves themselves may have been willing to contribute to their own freedom. If they too are assumed to pay taxes the per capita cost is $6.30, and is $8.40 if southerners are compensated for the tax.[21]

These bonds would be given to the slaveowners in return for the freedom of their slaves, each bond having a principal value equal to that of a slave. The transfer of income in the first part of this analysis is essentially from all whites to the slaves. The net wealth position of the slaveholders remains exactly the same; they should be indifferent between holding slaves or bonds. The slaves are the only gainers in this analysis in that they are essentially given money to purchase their freedom. The entire real wealth position of the United States is assumed not to change.[22]

Had the reference point been 1850 instead of 1860, the debt produced by immediate and fully compensated emancipation would have been smaller. This is due both to the smaller number of slaves in 1850 and to the rapid rise in slave prices from 1850 to 1860.[23] The capitalized value of slaves in 1850 was 1.3 billion 1850 dollars.

[21] These calculations were computed as follows. At six percent, $2.7 billion could be refunded at a constant rate by the taxation of $195,480,000 per year for thirty years. In 1860 there were 26,923,000 whites in the United States; therefore, the per capita tax in 1860 would have been $7.25. Per capita income in 1860 was $141; therefore the tax represented about 5 percent of per capita income. The southern population (that is, the Confederate population) was about 20 percent of the entire nation; therefore the per capita tax would be $9.66 if a refund was to be given the southerners to compensate them not only for their slaves but also for their tax burden. Taxation in this example is assumed to have an equal effect on all. If revenue were raised by a tariff, this might not be the case, and one region could bear a greater percentage of the burden.

[22] The possible exceptions to this statement will be raised in a later section of this paper. Robert Hall in "The Burden of Slavery," unpublished manuscript, Massachusetts Institute of Technology, discusses the possibility of changes in the interest rate due to the existence of slavery, in the same way that the creation of debt can result in a real burden. (See Richard Sutch, "Discussion of Slavery and Economic Growth," JOURNAL OF ECONOMIC HISTORY, XXVII (December 1967), 540-41, for a summary of the Hall paper.) But the perfection of a market for human capital, like the creation of a mortgage market, does not change anything real except the lowering of transactions costs of borrowing or lending. This paper does not consider the issue of transactions cost changes but does implicitly reject the hypothesis in the Hall manuscript. For a discussion of the real differences between a slave and nonslave economy, see Stanley L. Engerman, "Some Considerations Relating to Property Rights in Man," this JOURNAL.

[23] Slave prices, deflated by the Warren and Pearson wholesale price index, rose approximately 5 percent on an average annual basis from 1850 to 1860.

The same scheme as outlined above would have involved a per capita payment of $4.80 in 1850, and less per year thereafter. Per capita income in 1850 (in 1850 prices) was $110; therefore the first payment would have been four percent of per capita income. This, too, would decline during the thirty-year refunding period.

Another emancipation scheme, suggested by the brief review of abolition plans above, was that of gradual abolition with eventual immediate emancipation. This would lower the costs of compensation considerably. The gradual abolition scheme I have considered would free slave children at an age such that their birth price would be zero. This would reduce the probability that the slave children would be abandoned. Using a ten percent discount rate, male children would have been freed at age twenty-five in the Lower South and twenty-six in the Upper South. Female slave children would be completely emancipated at an earlier age on average, at twenty-five in the Lower South but at twenty-two in the Upper South. Since it is assumed that all children are freed so that their birth price is zero, then the entire rent on female slaves due to their breeding capacity is zero. Only the returns to field or household work now comprise a female slave's price. The entire capital loss from this portion of gradual abolition would have been $210 million in 1860.

Gradual abolition was almost always followed by full emancipation. The legislation proposed during the Thirty-seventh Congress recognized that complete and immediate emancipation was to be a difficult social transition. Therefore, most of the bills dealing with abolition provided for complete freedom after a period of time. One proposed measure which would have freed the Border State slaves allowed for a twenty-year transition period. That for Missouri specified complete freedom within thirteen years. If a gradual abolition bill was passed specifying total emancipation after a given period of time, the costs of fully compensating slaveowners would have increased. For instance, if all slaves were to be freed by 1890 there would have been approximately 5.3 million bondsmen emancipated at that date[24] at an 1860 value of about $340 million.[25] To this sum

[24] This computation involves several assumptions. The slave population is assumed to grow at a decadal rate of 22 percent. Survivor information (that is, the percent of any cohort which will survive to the next decade) from the period 1850 to 1860 was used to get the hypothetical number of slaves in each cohort which would have been in the population in 1890. The first effects of gradual emancipation are felt in 1885 when a cohort of twenty-five year-olds is emancipated. By 1890 there are no

would have to be added the 1860 capitalized value of the loss in breeding rights of the females; therefore, the total losses from this form of gradual abolition would have been $550 million in 1860.

One problem with the hypothetical compensated emancipation schemes developed above is that many northerners and southerners believed that the colonization of ex-slaves was a necessary part of abolition plans. Lincoln in particular "doubted that whites and free Negroes could live together in peace, and this led him to advocate colonization."[26] Colonization never became an issue in the Latin American and Caribbean emancipation debates because pre-abolition race relations in these areas made freedom more acceptable than in the United States. One writer has stated that in Cuba, for example, "there was no fear of emancipation . . . for the Cubans had long since accepted both racial miscegenation and an open-class system of social stratification."[27]

If compensated emancipation in the United States were followed by complete colonization of the ex-slaves, the costs of re-settlement would have to be added to the amount of debt created for compensation purposes. In the legislation proposed and passed during the Thirty-seventh Congress, about one-tenth of the total amount allotted to compensation and colonization was to be spent on the latter.[28] This would imply in the above case of immediate and fully

---

slaves between the ages of twenty and twenty-five. I also assume that childbearing is deferred by these female slaves, so that no children are born into slavery after 1885. An equivalent assumption would be to invoke the Supreme Court's decision in Miller *v.* Dwilling (1826), which stated that the children of emancipated slave children were free at birth. If this held, and if those children were cared for by their mothers' masters, the costs of gradual abolition would be slightly higher than calculated here.

25 I assume here that by 1890 the percentage of slaves in the Old and New (or Upper and Lower) South is the same. In addition, the peak prices for male and female slaves in 1860 are increased at an average annual rate of 1.3 percent to 1890. Therefore, the male peak price for an average of the Upper and Lower South would have been $1772 in 1890. That for the females would have been $1275; this does not include the birth rights to the children, since those have been subtracted off by the previous exercise. For a justification of the average annual rate of increase in slave prices from 1860 to 1890 see Robert W. Fogel and Stanley L. Engerman, "The Economics of Slavery," in their *The Reinterpretation of American Economic History* (New York: Harper and Row, 1971), p. 331.

26 John Hope Franklin, *The Emancipation Proclamation* (New York: Doubleday and Co., 1963), p. 21.

27 Herbert S. Klein, *Slavery in the Americas: A Comparative Study of Virginia and Cuba* (Chicago: The University of Chicago Press, 1967), p. 258.

28 The emancipation bill for the District of Columbia appropriated $100,000 for the colonization of about 3,000 slaves. The border state proposal allotted $20 million for this deportation, and that for Missouri "pledged federal support for voluntary colonization." See L. Curry, *Blueprint.*

compensated abolition an average of $78 to be allocated for the colonization of each slave. This can be compared with actual values spent by the Colonization Society. During the period 1816 to 1860 this organization colonized 10,498 free blacks at a cost of $1,806,705, or about $172 per person.[29] The Colonization Society probably spent more per slave than would have been allotted by Congress, and $100 per slave appears reasonable in view of the costs involved and the willingness of the electorate to allocate funds. This would add $384 million to the costs of compensated emancipation, if colonization were a necessary step in the passage of an abolition bill.

Southerners, too, viewed colonization as a necessary adjunct to emancipation. The colonization issue arose during debates in the Virginia Legislature from 1831 to 1832. In summarizing the consensus, Thomas R. Dew stated that "all seemed to be perfectly agreed in the necessity of removal in case of emancipation."[30] In view of this southern opinion, it is interesting to derive the effects of colonization on total factor returns in the South, to see if some factors could have gained from removal of the ex-slaves. It can be shown[31] that under the assumption of a Cobb-Douglas production

[29] Phillip Staudenraus, *The African Colonization Movement, 1816-1865* (New York: Columbia University Press, 1961), p. 15.

[30] Thomas R. Dew, "Review of the Debate in the Virginia Legislature of 1831 and 1832," in Eric L. McKitrick, *Slavery Defended: The Views of the Old South* (New Jersey: Prentice Hall, 1963), p. 21.

[31] The supply function for southern agricultural products can be characterized as Cobb-Douglas and of the form: $Q_a = AK^{(1-\alpha)}[L_w + L_b]^{\alpha}$, where L_w is free and L_b is slave labor. If the wage rates for these two labor groups are the same, the total factor returns to either w or b can be expressed quite simply. For example, the total return to w is: $\lambda_w = \left[\frac{L_w}{L_w + L_b}\right] \cdot \alpha \cdot P_a \cdot Q_a$, where P_a is the price of agricultural goods deflated by the price of all other goods in the economy. The total return to capital can be expressed similarly as: $\lambda_k = (1-\alpha)P_a \cdot Q_a \cdot L_w$ in this analysis is identified with free laborers and K with slaveowners. To see the effects of compensated emancipation and colonization on λ_w and λ_k, designate two time periods, 0 and 1, the latter corresponding to the colonization case. That is, in time period 1 the only labor is L_w. If the demand function for agricultural products takes the simple form: $Q_a = D_a P_a^{-\eta}$, the gains or losses from colonization can be easily derived. The ratio of the return to free labor in the two time periods is: $\frac{\lambda}{\lambda_{w_0}} = \left[\frac{L_w + L_b}{L_w}\right]^{[1-\alpha(1-1/\eta)]}$. Since $0 < \alpha < 1$ and $\eta > 0$, this ratio is always >1. The corresponding ratio for the capitalists is: $\frac{\lambda_{k_1}}{\lambda_{k_0}} = \left[\frac{L_w}{L_w + L_b}\right]^{[\alpha(1-1/\eta)]}$, which is $\gtrless 1$ as $\eta \lessgtr 1$. Therefore, capitalists gain if the demand for agricultural products is

function for agricultural goods in the South, capitalists would have lost from the compensated emancipation and colonization of slaves if the elasticity of demand for agricultural goods were greater than one. They would have gained if it were less than one. Free laborers will always gain. Of course, other models can produce very different results. In addition, to the extent that southerners consumed cotton textiles and staple crops, they would lose from price increases. Northerners would also lose from these increases in price.

The colonization schemes which were discussed during the Thirty-seventh Congress and the 1831-1832 Virginia State Legislature involved groups of slaves much smaller in number than the four million which I am considering here. Certainly the speedy removal of these four million ex-slaves would have been virtually impossible. Nevertheless, the abundance of debate on colonization renders this issue at least a necessary consideration in a discussion of hypothetical emancipation schemes.

THE EX POST COSTS OF THE CIVIL WAR

But to what can the costs of these emancipation schemes be compared? To determine whether the legislators in 1860 were rational it would be necessary to ascertain what the anticipated costs and gains of the Civil War were to the North and the South. This, though, is not possible. Instead, I will outline what the ex post costs of the Civil War were.[32] Although this does not shed much light on the anticipated costs, it allows one to ask whether an emancipation scheme would have been acceptable had the true costs of the war been known.

Direct estimates of the costs of the Civil War involve only scraps of evidence. It is known that the Union and the Confederacy borrowed about three billion 1860 dollars to finance the war and that about 600,000 soldiers died in battle or from battle wounds.[33] But we do not have reliable direct estimates of all losses, such as

inelastic. In addition, capitalists are compensated fully for their slaves; therefore they are not losing the annual net hire rate of their now freed bondsmen.

[32] Much of this section is taken from Frank D. Lewis and Claudia D. Goldin, "The Economic Costs of the Civil War," forthcoming manuscript, Queen's University and the University of Wisconsin.

[33] See Chester W. Wright, "The More Enduring Consequences of America's Wars," JOURNAL OF ECONOMIC HISTORY, III, Supplement (December 1943) for a discussion of war deaths, and Charles A. and Mary R. Beard, *The Rise of American Civilization* (New York: Macmillan Co., 1933), II, "The Industrial Era," p. 107, for an estimate of the Northern debt created during the Civil War. The burden of the war expenditures was less than the amount given because much of the money was spent on items such as food and clothing which would have been purchased by civilians in the absence of the war.

capital destruction and political instability. Therefore, I suggest that these costs be measured indirectly.

The costs which will be measured are those to persons alive in 1860,[34] because they determined the course of events culminating in the war. I assume that the costs of the war to the population alive in 1860 can best be viewed as the discounted value of the difference in consumption which would have been achieved without the war and that which was actually observed. The technique for computing these costs involves the construction of a hypothetical consumption stream for the period following 1860, that is, a consumption stream in the absence of the war. The difference between this consumption stream and that which was actually observed, discounted to 1860, is construed to be the cost of the War Between the States. Therefore, the cost is given by:

$$C = \sum_{j=1860}^{n} \left[\frac{C_j' - C_j}{(1+i)^{j-1860}} \right],$$

where C_j' is the hypothetical consumption in year j and C_j is the actual consumption in that year. The discount rate, i, is taken to be .07. The calculation described below takes n as 1909, for after that date the costs, C, are trivially incremented. Given certain assumptions concerning the hypothetical consumption stream, C is calculated to be about 10 billion 1860 dollars.

The hypothetical consumption stream for the period 1860 to 1869 was constructed by assuming that per capita real income would have grown at the average 1839 to 1859 rate had the Civil War not occurred. It also assumes that the hypothetical path grows at a rate such that per capita income in the real and hypothetical worlds are equal by 1885. After that year the per capita growth for both streams is taken to have been the same. One million people are assumed to have died directly from the war.[35] That is, there are one million more persons in the hypothetical than in the actual world in 1869, and these persons die at rates according to data for 1900. Immigration is subtracted from the population increase, because the costs of the war are only to those living in 1860.

[34] The persons alive in 1860 are assumed to value the consumption stream of their children and their grandchildren, and to discount it at the rate at which they would their own. The loss of consumption to immigrants who enter after 1860 is not counted in the calculation described below.

[35] Although this is probably an upwardly biased estimate of Civil War-related deaths, the analysis does not take into consideration some of the losses due to war wounds not resulting in death.

To compare the costs of emancipation to the costs of the Civil War it is necessary to assume that the hypothetical world of emancipation without the Civil War would not have involved political instability. One might certainly argue that if the states underwent some form of fully compensated, voluntary emancipation, rather than an imposed settlement after battle, the process of change would have been much smoother. This will be my assumption in this analysis.

The costs of the Civil War, measured by various means, were much above the costs of any one of the compensated emancipation plans. Of course, the nature of the costs of the two alternatives is different. The war involved "dead-weight" losses and a redistribution of income from slave-owning persons to slaves, whereas the emancipation schemes are only income redistribution plans. But to the free persons who could vote in 1860 these costs are both weighed equally in their decisions. The southerners decide on their strategy by assessing the probability of winning the war times the expected net costs or benefits of the war. If they weigh this against a fully compensated emancipation scheme,[36] they should choose battle only if the expected net gains of the war are positive. The northerners also make the same calculation, but they weigh the expected net gains from the war against the costs of financing the compensation scheme.

From a casual glance at the data presented it seems obvious that an incorrect choice was made. Was this a function of a stalemated political process? That is, are there reasons to believe that the emancipation schemes were not feasible as political solutions? Are the costs of the alternatives being measured incorrectly? Certainly, one cannot leave out the fact that the costs of the Civil War were very imperfectly anticipated, and that the expected gains from winning appeared large. In addition, there is still the possibility that the war would have been fought even had one of the emancipation schemes been adopted.

WHY EMANCIPATION SCHEMES WERE NOT PROPOSED AND ENACTED BEFORE 1861

The previous analysis took the sum of all slave rents to equal the amount necessary fully to compensate all slaveholders. If the method of purchasing back the slaves were non-political, that is, if each

[36] I assume here that the bonds are financed in such a way that southerners are compensated for their tax burden as well as for their slave property.

slave were bought back individually, then this assessment is correct. But because the slave-owning region would have to decide on the amount necessary for compensation, there are many reasons to believe that the figures given above are underestimates.[37] More correct figures can be obtained if one takes into account the rents accruing to other productive factors in the South due to the existence of slavery.

If slaves were emancipated, with or without colonization taking place, factors which were specific to the slave economy would lose. For instance, if the scale of farms would have to be reduced with large living quarters broken down, additional transition costs would have to be paid. White overseers and other specific factors would lose by the abolition schemes, and these factors would also have to be compensated for emancipation to be amenable to the South as a whole. There is no evidence bearing on the magnitude of these losses, although they probably were trivial in comparison with the capital value of slaves.

Another, even more nebulous, set of losses concerns the positive externalities which the slave system conferred on persons in the South. With emancipation, these positive external benefits would be removed. If the abolition scheme were voted on by the entire slave-owning region, these losses would have to be compensated. One possible external benefit was the satisfaction southerners received from the institution of slavery as a racist device. In addition, the slave system might have represented a "way of life" to southerners as a group. Although each master valued his slave at the market price, which reflected only the productive (and breeding) capabilities of the slave, the slave system as a whole may have been worth more than the sum of these prices.

Even though Lincoln and many influential northerners and southerners wanted colonization, it is possible that southerners as a whole did not. In that case there may have been additional costs to factors in the South had the ex-slaves moved North. Because the relative magnitude of free labor in the South prior to 1861 was small, it is possible that wages did not equalize between the northern and

[37] This argument will not involve bargaining problems. That is, if all costs were known, the South could "hold out" for a much larger sum. In addition, factors such as economies of scale and conspicuous consumption have already been included in the above figures. That is, if slaves afforded economies of scale in staple crop production, whereas free labor did not, then the price of slaves would reflect this advantage. The same argument applies to the possible existence of conspicuous consumption in slave owning.

southern regions. Since slaves could not migrate, factor prices did not have to equalize. Therefore, emancipation would induce a massive migration to the North, with losses of inframarginal products to certain productive factors remaining in the South. This can only be counted as a loss if the southerners did not want the removal of the Negroes. On the other hand, had the southerners elected colonization as part of an emancipation scheme, the Federal Government would not have to pay for the inframarginal losses.

It is possible, therefore, that the capitalized value of slaves was less than the required amount of compensation. Specific factors in the South may have lost; positive external benefits would have been curtailed; and the decline in inframarginal products would have to be compensated. Although it is impossible to assess these amounts, it seems reasonable to assume that they were not double or triple the value of slaves in 1860. Therefore, the required compensation costs still appear to be smaller than the realized costs of the Civil War.

In all probability, the major reason that the war was fought instead of there being a political settlement was that its costs were incorrectly anticipated. The North was obviously surprised by the tenacity of the South, and the South had counted on more support from Great Britain. It appears that neither side thought the war would last more than one or two years. As the war dragged on, Lincoln expressed the opinion that the costs of the war were dreadfully and surprisingly high and that slavery could be "bought out" at a cheaper price. In a letter to J. A. McDougall of California in 1862 Lincoln stated that "[l]ess than one half-day's cost of this war would pay for all the slaves in Delaware at $400 per head . . . [and] less than 87 days cost of the war would pay for all in Delaware, Maryland, District of Columbia, Kentucky and Missouri."[38]

The "Beard-Hacker" thesis also can serve to explain the apparent northern apathy toward a political resolution of the problem.[39] The settlement imposed on the South after the war may have redistrib-

[38] John Hope Franklin, *The Emancipation Proclamation*, p. 22.

[39] Louis Hacker's statement of this proposition can be found in the following passage: "The American Civil War turned out to be a revolution indeed. But its striking achievement was the triumph of industrial capitalism. The industrial capitalists, through their political spokesmen, the Republicans, had succeeded in capturing the state and using it as an instrument to strengthen their economic position. It was no accident, therefore, that while the war was waged on the field and through Negro emancipation, in Congress' halls the victory was made secure by the passage of tariff, banking, public-land, railroad, and contract-labor legislation." L. Hacker, *The Triumph of American Capitalism*, p. 373.

uted income to northerners. This implies that persons in the North need not have weighed the costs of the war against the costs of compensated emancipation. Instead, they should have compared the net costs or gains of the war with the costs of compensated emancipation.

A final reason for the lack of legislative discussion of abolition prior to 1861 is that slavery may not have been a major cause of the Civil War. The war may have been fought with or without the institution of slavery. As a corollary, the Civil War and emancipation may not have been exclusive events. Even had a fully compensated emancipation scheme been passed prior to the firing on Fort Sumter, the political balance of power would have remained delicate. The Civil War might still have been fought, and both the costs of redistribution from non-slave owning to slave and the costs of the war would have been incurred.

CONCLUDING REMARKS

Although the Union was able to view in historical perspective emancipation schemes of all types, none were seriously considered before 1861. After that date abolition plans were discussed only as part of the Union's war effort. It appears from a summary of the data in this paper, given in Table 1, that the Union erred. It did not look to other slavocracies for advice in solving its slave problem, for the realized costs of the Civil War were far greater than those of various emancipation schemes. Of course, the Union's winning the war may have given the northern states a greater market basket of goods than just the abolition of slavery. It is possible that it more carefully weighed the costs and benefits of the war than has been apparent from this analysis.

The South lost doubly from fighting the Civil War. It not only paid large amounts for the machinery of war and incurred the destruction of lives and property, but, in addition, its slaveowners had their property expropriated after the battles were over. However, the gains to the South of winning the war have not been assessed, and the expected losses of its entering into battle may have been small.

Because the paper by Stanley Engerman[40] has discussed the inter-

[40] See S. Engerman, "Some Considerations Relating to Property Rights in Man," this JOURNAL.

esting features of slave and non-slave economies, my paper has not focussed on the effects of emancipation on human capital formation, economic efficiency, the labor-leisure choice and other subjects. Instead, I have looked at various schemes of emancipation which were adopted by certain slavocracies. These and the discussions during the Thirty-seventh Congress have suggested various counterfactuals concerning the antebellum United States. My only conclusion is that I have been surprised that so few persons considered emancipation in any form prior to the war. I have suggested various possible reasons, but have no concrete answers.

CLAUDIA DALE GOLDIN, *University of Wisconsin*

TABLE 1
THE COSTS OF FULLY COMPENSATED IMMEDIATE AND GRADUAL ABOLITION IN 1860 AND THE EX POST COSTS OF THE CIVIL WAR

A. The Costs of Fully Compensated Abolition in 1860[a]

(1) Capital Value of 1860 stock of slaves	$2.7 billion
(2) Breeding rights of female slaves in 1860	$210 million
(3) Capital value of 1890 stock of slaves in 1860 after gradual abolition[b]	$340 million
(4) Colonization costs in 1860[c]	$384 million

	Per Capita Cost[d]		
	All Free Persons Pay	Only Northerners Pay	Slaves Plus Free Persons Pay
Immediate Abolition (1)	$7.25(5%)	$9.66(7%)	$6.30(4%)
Immediate Abolition (1)+(4)	8.00(6%)	10.70(8%)	6.90(5%)
Gradual Abolition (2)+(3)[e]	1.50(1%)	2.00(1.5%)	1.30(1%)

B. The Ex Post Costs of the Civil War

Direct Outlays	$ 3 billion
Deaths to soldiers	635,000
Ex Post Cost defined as the difference in two consumption streams	$10 billion

[a] All costs are expressed in 1860 prices, in 1860.

[b] Gradual abolition is defined as the freeing of all children of slaves after a period of 25 years of service. This is followed by total abolition as of 1890; therefore, the costs of the remaining stock of slaves must be added to the decline in the capitalized value of the females.

[c] Colonization costs for 3.84 million slaves at $100 per slave.

[d] The bonds used to finance these schemes are refunded such that an equal amount of principal and interest is paid each year. The numbers in parentheses are the percent of 1860 per capita income represented by the tax transfer in 1860. The percentage would decline during the thirty-year refunding period.

[e] The costs of gradual abolition involve both the losses of breeding rights to females (2) and the loss of the capital stock of males and females (not including breeding rights) as of 1890, discounted back to 1860 (3).

Source: See text.