

**Betting on Secession:  
Quantifying Political Events Surrounding  
Slavery and the Civil War**

Charles W. Calomiris and Jonathan Pritchett\*

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\* Calomiris is Henry Kaufman Professor of Financial Institutions, Columbia University and Research Associate, National Bureau of Economic Research; e-mail address: cc374@columbia.edu; Pritchett is Associate Professor of Economics, Tulane University; e-mail address: jprit@tulane.edu. The authors acknowledge the support of the National Science Foundation award SMA-1004569, and the New Orleans Center for the Gulf South. We benefit from the helpful comments and suggestions of Jenny Bourne, Stanley Engerman, Jean-Laurent Rosenthal, and Gavin Wright. Yibang Chen, Zachary Cohen, Kyle Falvey, Denise Fornoff, Jessica Hayes, Benjamin Kim, Daniel Penaranda, Stephen Ragany, Kara Ramsey, Catherine Rath, Mallorie Smith, and Emily Westermeier provided able research assistance. Earlier versions of this manuscript were presented at the meetings of the Cliometrics Society on January 5, 2013 and the NBER Development of the American Economy Program Meeting on March 2, 2013.

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We've borne enough insults from the Yankees.  
We'll keep our slaves with or without their approval.  
'Twas the sovereign right of Georgia to secede from the Union.  
The South must assert herself by force of arms. (Gerald O'Hara)

I'm saying very plainly that the Yankees are better equipped than we.  
They've got factories, shipyards, coal-mines... and a fleet to bottle up our  
harbors and starve us to death. All we've got is cotton, and slaves and  
...arrogance. (Rhett Butler)

*Gone with the Wind* (1939 screenplay)

**Abstract**

In May 1860, the Republican Party nominated Abraham Lincoln as its candidate for President of the United States. Lincoln's successful election campaign in 1860 led to Southern secession, the Civil War, and ultimately, to the abolition of slavery within the United States. Because buyer expectations influenced contemporary demand for slaves, slave prices should reflect changing expectations of sectional conflict and the war's possible outcome. Using a new database of slave sales from New Orleans during the late 1850s and early 1860s, we examine the connections between political news related to slavery and the price of slaves during the five-year period leading up to the Civil War. We show that slave prices fell prior to the war, and continued to fall once the war commenced. The overall decline in slave prices was large (more than a third from their 1860 peak) and occurred prior to any battle losses by the South. Rather than indicating a likely emancipation of slaves without compensation to their owners, the decrease in slave prices seems to have reflected rising concerns by slaveholders regarding the costs of Lincoln's election and the coming Civil War on the economic future of the South and its slaveholders.

## I. Introduction

The struggle between the Southern slave-based labor system and the Northern “free soil” movement produced bitter and violent conflict throughout the 1850s, which culminated in 1861 with Southern secession and four years of Civil War. The Civil War remains a puzzling event to historians, economists and political scientists. The Southern decision to secede is clearly traceable, at least in large part, to a political push by Southern slave owners, especially in the Deep South. There is no doubt that the key issue in the minds of the advocates of secession was the future of slavery. Secessionists saw the risk that President Lincoln and the newly resurgent Republican Party posed to maintaining slavery as a labor system in the existing South, and to being able to expand the reach of slavery into the territories and possibly other areas including Cuba. But if the goal of secession was preserving the slave system, what were slaveholders’ expectations regarding the cost of the war and its possible outcome? Did they anticipate a short, painless war with a victory for the South (or at least northern recognition of the Confederacy) or the long, bloody conflict that would ultimately result in the destruction of the slave labor system? In this paper, we investigate those questions by examining the connections between political news related to slavery and the price of slaves during the five-year period leading up to the Civil War.

Our main contributions include the estimation of slave prices using high frequency sales data from New Orleans and the construction of counterfactual scenarios in order to predict temporal price movement in the absence of political events prior to the Civil War. We show that slave prices fell prior to the war, and continued to fall once the war commenced. The overall decline in slave prices was large (more than a third from their 1860 peak) and occurred prior to any battle losses by the South. We also find that this steep initial decline in slave prices was the

same for all age and sex cohorts of slaves sold. Thus, the early sharp decline in slave prices should not be interpreted as reflecting the expectation of a likely emancipation of southern slaves without compensation to their owners. Instead, the decrease in slave prices seems to have reflected rising concerns by slaveholders regarding the costs of Lincoln's election and the coming Civil War on the economic future of the South and its slaveholders.

## II. Slave Prices, Dred Scott, and the Civil War

Why use slave prices to quantify the economic importance of political events? Slave prices measure market perceptions of the discounted present value of future income and other benefits that masters expected to gain from the labor of their slaves. Because slaves were mobile, the prices of slaves in New Orleans should reflect those of other slaves deployed elsewhere in the South. In addition, slaves were valued as financial assets and represented a significant share of southern wealth.<sup>1</sup> Goldin (1973, p. 85), for example, estimates the market value of slaves at \$2.7 billion where Ransom and Sutch (1988, p.151) give a slightly higher figure of \$3 billion (in 1860 dollars). A desire to maximize the value of this wealth was an underlying cause for the South's decision to secede from the Union.<sup>2</sup> New Orleans slave prices, therefore, can provide an important measure of the expected consequences of political events for the future of slavery throughout the South.

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<sup>1</sup> Ransom and Sutch (1988, p. 139) estimate slave capital represented 44 percent of all wealth in the cotton-growing states in 1859. See also Deyle (2009, p. 840).

<sup>2</sup> We will not review here the literature establishing that secession was motivated by concern related to slavery, which we regard as beyond reasonable doubt, based on the simple facts surrounding the secession decisions (that is, the debates and conflicts that preceded and coincided with secession). For background on the struggle over slavery, from the perspectives of the North, the South, and the West, see, for example, Stamp (1965), Fehrenbacher (1962), Dusinger (1965), Gaedert (1974), Wright (1978, Chapter 5), Fogel (1989), Zarefsky (1990), Freehling and Simpson (1992, 2010), and Basler (2001).

The Civil War was the culmination of many different political events involving slavery. Slave prices are forward looking opinion aggregators that can help sort out the timing of these events and their perceived meaning, and therefore, can tell us whether news was a positive for slaveholders and if so, how much of a positive. Alternatively, we can analyze newspapers and journals to estimate the importance of these events as potential causes for the war. Oftentimes, these political events had ambiguous effects on the institution of slavery. Consider, for example, the effects of the Supreme Court's Dred Scott decision in March 1857. The Court ruled that Dred Scott (a Southern slave residing on free soil) had to be returned to his Southern master, but the Supreme Court's decision went much further, arguing that federal actions to limit the spread of slavery, beginning with the Missouri Compromise, were unconstitutional. The implication was that all land in America was open to slavery unless states decided individually to exclude slavery within their borders, but even then, states were obliged to respect the property rights of slave-owners over slaves residing within their own borders.

The initial reaction to the Dred Scott decision was jubilant in the South.<sup>3</sup> On March 14, 1857, an article in New Orleans' *Daily Bee* predicted that the decision "...will exert the most powerful and salutary influence throughout the United States." Similarly, on March 15, the *Louisiana Courier* wrote that "[n]o judicial tribunal has ever rendered a more important decision than that of the U.S. Supreme Court in the case of Scott vs. Sanford...It must be exceedingly gratifying to the advocates of democracy, who have so long and so vigorously contended against the odious Missouri restriction, to hear from the highest authority a confirmation of all they have

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<sup>3</sup> There were rumors about the decision prior to March. On January 1, 1857, *New York Herald* reported the false rumour that the Court had decided to rule that the Missouri Compromise was unconstitutional. In fact, we know from internal documents that the Court did not decide to broaden the case until mid-February 1857, so any such rumours were wrong. Nonetheless, they may have affected slave prices.

heretofore maintained, as to the unconstitutionality of that act.” New Orleans’ *Daily Picayune*, optimistically predicted on March 20, 1857 that “the Union men of the country, of all sections, who are for the constitution as it is, will be able, we trust, to put down effectively all forms of incendiary agitation, and restore quiet and harmony to the country.”

But as early as March 19, 1857, there was recognition of the fact that a political backlash in the North could offset or even eliminate the gains from the decision. On that date, the *Louisiana Courier* wrote about its concern that “Black Republican lamentations” might “succeed in electing Ethiopian presidents...” In New Orleans’ *Daily Bee*, on March 21, 1857, similar fears were voiced: “But he is a shallow observer of events and an unskilful judge of human nature, who imagines that the verdict of the Supreme Court—though consonant with right and justice, and consistent with the soundest interpretation of the federal compact—will, as if by magic, dissipate all preconceived opinions, dispel hostile views, and restore the era of fraternal harmony and peace...The verdict of the Supreme Court breaks like an angry wave against the impregnable rock of Northern fanaticism.” The April 1857 issue of *De Bow’s Review* expressed a similar sentiment, predicting that the North “is about to change its position” and will “organize upon the basis of this another party, which shall struggle again for the control, and as must be the result if successful, the overthrow of the Republic...”

It is interesting to note the level of sophistication of the discussion of Dred Scott’s potential effects on slave prices, including the recognition of the possible harm to slave owners (and benefit to the North) from reduced commodity prices. Consider this passage from *De Bow’s Review*, April 1857: “Economically, the extension of slavery will injure the South and benefit the North. It will cheapen the raw material and enhance the price of manufactured articles. It will increase the trade and commerce of the North, multiply her customers, cheapen cotton, sugar,

molasses, rice, meats, wheat, and Indian corn, and thus injure the South whilst it benefits the North. The extension of free society will have the exact opposite effect, and rear up rivals and competitors, instead of customers, for the old free States. The South desires slavery extension only as a means of defence against the inroads of abolition.” Clearly, as people thought about the consequences of the Dred Scott decision, they saw complex implications for institution of slavery and the South.

Every American schoolchild knows that the Dred Scott decision was a turning point in American political and legal history. Politically, it marked the beginning of Abraham Lincoln’s prominence as a politician; seeking to overturn the Dred Scott decision became the focal point of Lincoln’s speeches and his famous debates with Senator Douglas. Lincoln’s successful election campaign in 1860 focused specifically on his advocacy against the Dred Scott decision, which had also been the main theme of his debates with Senator Douglas two years before. With respect to legal history, Dred Scott was the apogee of the Supreme Court’s defense of “states’ rights,” and the Taney Court was the high water mark of Southern influence; Lincoln’s election, the Civil War and its aftermath changed the direction of the Court, and ushered in a new era of Supreme Court acquiescence with the will of the national government under Northern control.

But was the Dred Scott decision important as a matter of *economic* history? Did the Dred Scott decision have important economic implications, and did those economic implications matter for subsequent political history? Calomiris and Schweikart (1991) and Wahl (2009) argue that the Dred Scott decision was an important adverse shock to Northern immigration and infrastructure expansion plans. Along with other events that contributed to the conflict between free soil and slave interests, especially in Kansas, it rendered politically impossible for the time being the construction of a transcontinental railroad, which was disastrous for the speculation in

western railroad securities that was running very high in the mid-1850s. According to this view, the Dred Scott decision, and the broader conflict over slavery, was instrumental in setting in motion the Panic of 1857.

How was the South affected by the Dred Scott decision? The Panic of 1857 clearly had adverse consequences for the North and for railway interests there, but not so much for Southern economic interests. Indeed, the South's banking sector was able to weather the storm well, owing to its stable branching structure and its lack of direct exposure to speculative railroad securities. The most obvious potential economic influence of the Dred Scott decision on the South was positive. Specifically, by legitimizing the right of states to maintain slavery *ad infinitum*, by expanding the territory in which slavery could operate and by protecting the property rights of slaveholders, the Dred Scott decision could have had a substantial effect on Southern slave prices.

Table 1 lists the principal political events related to the conflict over slavery from 1857 through mid-1861. Some of the salient events of this era include the end of the bloody political struggle over whether Kansas would be admitted to the Union as a slave or free-soil state, which was resolved in pieces over the period 1855-1860, the Dred Scott Decision by the Supreme Court on March 6, 1857, the attack by John Brown on Harper's Ferry in October 1859, the nomination of Lincoln in May 1860, Lincoln's election in November 1860, the secession of the various Southern states that occurred in the aftermath of Lincoln's election (beginning with South Carolina's decision to secede on December 20, 1860), the South's attack on Fort Sumter on April 12, 1861, and President Lincoln's response, which took the form of a massive troop mobilization, a blockade of southern ports, and various military campaigns into the South

beginning in July 1861. We estimate the importance of these events in our analysis of slave prices during the years prior to the Civil War.

### III. New Orleans Sales Data

To track short-term responses of slave prices to political events one needs high frequency data on prices. Because individual slaves and slave transactions were highly heterogeneous in several important respects, the construction of a price index for slave prices requires a sample with many observations of sales.<sup>9</sup> The Fogel and Engerman database on slave sales is useful for many purposes (see, for example, Calomiris and Pritchett 2009), but it does not contain a sufficiently large number of observations for each month to make it usable for our purpose.

For our study, we develop a new database for all slaves sold in New Orleans, Louisiana between 1856 and 1861. Unlike states with a common law tradition, Louisiana treated slaves like real estate, and slave sales had to be recorded and notarized in order to establish title (Louisiana 1806, section 10). Prior to the establishment of the Notarial Archives in 1867, a notary's records (as well as those of his predecessors) were stored and maintained in his office. In order to locate a legal document, a researcher needed information on the date of sale, the name of the notary who recorded the sale, and the name and location of the current notary who held the document. Recognizing the difficulties facing researchers, the Louisiana legislature created the office of the Register of Conveyances in 1827, whose duties were to register all acts of transfer of real estate or slaves. The Register was required to record the date and location of the act, a description of the slaves "with all necessary details," the price of the transfer, and whether the

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<sup>9</sup> Cross-sectional regression analysis accounts for less than 50 percent of the variation in individual prices. For example, using Fogel and Engerman's sample of New Orleans slave sales, Kotlikoff (1979, p. 501) reports an  $R^2$  of only 0.479. Much of the remaining price variation is the result individual characteristics which were not recorded by the notary at the time of sale. Because we hope to discern the temporal variation in slave prices, we need many observations in order to account for this unexplained variation. {work on this!}

transaction was for cash or credit. In addition, transfers passed “under private signature” were to be recorded in toto. The Register maintained an index which allowed researchers to locate the sale date and the notary who recorded the act of sale (Louisiana 1827, pp. 136-141).

The Conveyance Records represent an alternative (and under used) source of information on New Orleans slave prices. Because the Notarial Archives preserve the actual acts of sale, these records provide a more complete description of the transaction, including more information about the slave. The conveyance records provide a relatively brief summary of the sale. Although the name and age of the slaves was always recorded, information on occupations or maladies was often under reported (Pritchett and Hayes, 2013). The Conveyance Records include more transactions than the Notarial records. Although few in number, sales passed under private signature (typically a parish judge) were not recorded by the notaries (but were recorded by the Conveyance Office). Some notarial records were destroyed by office fires whereas others are simply missing due to the passage of time. In contrast, none of the Conveyance Records appear to be missing; thus, they should provide a better accounting of the total number of sales within the city.

The Conveyance records are handwritten in either English or French. For the period October 1856-August 1861, we have collected all records of slave transactions in New Orleans from the Conveyance Records (representing the sales of more than 16,000 slaves). A large number of slaves were sold each year, averaging approximately 3600 slaves for the first four years of the sample period.<sup>10</sup> As indicated by the frequency distribution presented in Figure 1, New Orleans slave sales were highly seasonal – monthly sales for January to April were more

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<sup>10</sup> The number of sales in the late 1850s is not large by historic standards. Pritchett and Smith (2013) estimate, for example, that more than 6200 slaves were sold in New Orleans during the 1830 calendar year.

than three greater than monthly sales for August or September. In addition, slave sales decreased sharply during the fall Presidential campaign of 1860. Sales by interregional slave traders contributed to both of these effects.

### *Traders and the supply of imported slaves*

Most interregional slave traders were transients, purchasing slaves in the exporting areas during the summer and early fall, and reselling them in New Orleans during the late fall and winter. Interregional traders preferred to deal in higher value, prime-aged males (F&E, 1974; Tadman, 1989; Pritchett and Chamberlain, 1993). The changing demographic composition of the slaves sold in New Orleans provides indirect evidence of the seasonal presence of these interregional traders. In particular, the relative number of prime-aged males (aged 18 to 30 years) is positively correlated with total sales ( $r=0.58$ ,  $n=59$ ), indicating a relative increase in sales by slave traders during fall and winter months.

Interregional traders not only acted as speculators but also as intermediaries by facilitating exchange between slaveholders in the exporting areas and buyers in Louisiana. Traders profited by buying low in the exporting areas and selling high in New Orleans. They, however, bore the risk of a possible price decline between the date of purchase and the date of sale. Using data from 1830, Freudenberger and Pritchett (1991, p. 468) estimate that interregional traders held their slaves an average of 106 days between purchase and resale, with a modal value of two months. Any price decline during these days would decrease the trader's profit and increase the likelihood of financial ruin.

Many slaves sold in New Orleans were imported from other areas of the South and traders supplied many of these slaves. Because they were professionals, traders were better

informed and possibly more sensitive to changing market conditions than local sellers of slaves. And traders were very concerned about Lincoln's candidacy and its possible effect on the market for slaves.

Beginning in September 1860, the Richmond auctioneers of Betts and Gregory advised their clients to sell their slaves now. Although prices were currently high, "[t]he Chances are they will be lower." Should their clients wish to purchase slaves, "we would advise you [to] not buy nothing but good negroes and buy them at prices to sell immediately." This market uncertainty was directly linked to the fall election. According to Betts and Gregory, "The Presidents election is having a considerable effect on the market[.] how it will go no man can tell."

Things got progressively worse for traders with Lincoln's election in November. Dickinson and Hill advised their clients that the "financial crisis still rages and is not likely to abate for some months. We have no hope for any political change which will give peace and confidence in commercial matters." Such pessimism was pervasive across the South. In February 1861, Memphis slave trader G.W. Chrisp wrote that the current political crisis "will have a very bad affict on the negro market [.] what we are coming two the lord onely noes [.] We think our state might to be in Hell" [underline and spelling in original document]. The same month, slave trader A. J. Rux reported falling prices and fewer sales in Mobile. Traders were "Selling some in Orleans but a long ways under cost. . . . I am in hopes times will get better before long but I don't much think there will be any market this winter to do any good."

How did such pessimism translate into market sales? If traders were withdrawing from the market, then we should observe a relative decrease in the number of slaves sold by them.

Because interregional traders preferred to deal in higher-valued, prime-aged males, fewer sales by traders would have reduced the relative number of these slaves sold in New Orleans. We find that prime-aged males comprised 23.4 percent of total sales in New Orleans from October 1856 – September 1860 whereas comparable slaves represent only 16 percent of total sales for September 1860 – August 1861. The decrease in the relative number of prime-aged males is consistent with traders leaving the market in response to a decreased demand for slaves.

### *Slave Price Index*

Not all records in our database can be used for the construction of our price index. Observations are excluded from the sample for a variety of reasons. Transactions with missing values for age, gender, date of sale, or sales price are excluded from the sample. Also excluded are the sales of partial ownerships, transactions bundled with real estate or other property, self purchases, donations, and exchanges. Finally, the records of slaves sold in groups without individual price information are removed from the sample. After making these exclusions, the working sample includes the sales records of 10,177 slaves.

Table 2 reports descriptive statistics for usable sales data. The variables reported in Table 2 are those that have been identified by prior research (Fogel and Engerman (1974), Kotlikoff (1979, 1992) and Calomiris and Pritchett (2009)) as slave and transaction characteristics that are relevant for modeling slave transaction prices. Prices for credit sales may have been inflated due to the opportunity cost of the borrowed funds. Consequently, we substitute the present value of

the payment stream, discounted at an 8 percent annual rate, for the recorded market price.<sup>12</sup>

Following previous practice, we express slave prices as logarithms.

Transaction prices reflect characteristics that are observable in our dataset as well as those that are unobservable to us, but observable to market participants. The latter category of characteristics affects market prices in ways that our model cannot capture, and thus produce “residuals” from the perspective of our model. Because our goal is the construction of monthly averages of residuals there is an inherent tradeoff involved in screening data for outliers. Including observations improves the accuracy of the measurement of the average price, but extreme outliers can bias the measured average. To omit outliers, we first ran a basic hedonic regression using a functional form from previous studies. As seen in Figure 2, most of the outliers are negative, indicating that we overestimate the prices of a very small number of observations.<sup>13</sup> After removing 14 observations with residuals less than -2, we reran the regression and presented the results in Table 2, regression 1. None of the findings reported below is sensitive to the omission of these 14 observations.

We follow Kotlikoff (1979, 1992) and others in modeling the age profile of slave prices using a sixth-degree polynomial. Figure 3 reports the price-age profile, which shows the familiar pattern of a hump-shaped relationship between price and age, which peaks around age 22. Our model includes measures of slave characteristics (sex, age, etc.) as well as measures of transaction characteristics. Transactions that offered guarantees to buyers commanded higher

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<sup>12</sup> For most credit sales, notaries did not record an interest rate. For those sales with recorded interest rates, the most common rate was 8 percent.

<sup>13</sup> We can account for the low prices for most of these slaves. Two of the slaves were runaways (one of whom was contemporaneously absent at the time of sale). Two slaves were blind (in both eyes), one was crippled, and two were only guaranteed in title only. Two slaves sold at very low prices (\$5 each) with a condition that they be emancipated. Although we include covariates for slaves who were sold without warranty, or with a condition of emancipation, it appears that these instruments are a bit too blunt to capture the price variation for these lower-valued slaves.

prices, as did transactions that offered credit to buyers. Calomiris and Pritchett (2009) show that other attributes of transactions included here (whether they are part of family or group sales, and the origin of the buyer) mattered for transactions through a variety of potential channels, including selectivity bias.

Figure 4 plots the monthly average of residuals estimated from Regression 1 of Table 2. For comparison purposes, Figure 4 also plots the monthly average price for males aged 18 to 30 years without recorded occupation or defect (Engerman's definition). Although both indices follow similar temporal patterns, we believe that the monthly average of the regression residuals provides a better indication of the movement of slave prices. The regression residuals control for seasonality and price variation between the ages 18 and 30. The monthly average of the residuals includes all 10,177 observations in the working sample which, other things equal, increases the precision of our estimates. (There are only 2,814 prime-aged males in the sample.) Finally, relative few prime-aged males were sold during the summer months, rendering price estimates for those months especially problematic. For these reasons, we use hedonic price indices constructed from regression residuals for the following analysis.

As indicated by figure 4, the trend in slave prices is generally upward throughout the late 1850s. Prices fluctuate during 1857, with an increase of 6 percent in March followed by a 13 percent decrease in the late summer and early fall. During the next two years, slave prices increased approximately 39 percent (a rapid increase noted by contemporary and current scholars). Although the turning point is uncertain, nominal prices appear to peak in summer 1860 (possibly coinciding with Lincoln's nomination) and begin to decline during the fall presidential campaign. Compared with prices in June 1860, we find that slave prices fell 19 percent by November 1860. Attributing this price decline to the perceived threat of Lincoln's

nomination and election is problematic, however. After all, prices might have declined because of changing market fundamentals rather than the political events leading up to the war. To control for those influences, one must construct a counterfactual model that controls for changes in fundamental variables that affected slave prices over time.

#### IV. Constructing a Slave Price Counterfactual

Measuring the effect of political events requires the construction of a credible counterfactual measure of slave prices – that is, what slave prices would have been absent the political events – by properly taking into account other, non-political influences and their effects on slave prices. The most important observable factor influencing the expected cash flows from slave labor is the price of cotton. The link between cotton and slave prices has been a central theme of the empirical literature on slavery from its inception. As Phillips (1918) noted, cotton cultivation was among the most profitable uses of slaves: “The cotton belt and the sugar bowl accordingly made a market to attract labor by offering prices higher than rice or tobacco earnings would warrant. The younger staples thus, on different schedule of buoyancy, were the main factor determining slave prices in every corner of the South. Cotton by reason of its immense area and volume of production, reduced even sugar to a secondary role” (p. 176). As Phillips recognized, “The slaves themselves were ‘securities’ – investments made with a view to future income. ... The price of a slave was affected by the price of cotton for the same reason that copper shares are influenced by the current price of copper metal.” (p. 179).

Gray (1933) – who referenced Phillips’ work – also commented on the connections between slave and cotton prices: “Slave prices were strongly influenced by the rise and fall in

cotton prices. In the earlier years of the nineteenth century there was a belief that slaves should rise \$100 for each increase of 1 cent in price of cotton above cost of production.” (p. 664).

Nevertheless, the connection between cotton prices and slave prices is not straightforward. As Phillips and Gray both recognized, the relationship between the long-term price trends of slave prices and cotton prices seems to have changed in the 1850s. Phillips noted that: “After five years of western bankruptcy a new climb was begun, roughly parallel to the cotton curve until 1857, when cotton went down but slaves continued upward. In this concluding decade there was again a notable spread between the two pairs of markets.” (p. 178) Gray noted that the diverging trends of cotton and slave prices produced big changes in their ratios over time: “In this last speculative movement [of the late 1850s], as Phillips has shown, the prices of slaves advanced much higher in relation to the prices of cotton than in earlier periods of peak prices. Thus, in terms of cents of cotton to hundreds of dollars in average slave prices in New Orleans, the ratio was nearly 4 to 1 in 1805, a little over 1 to 1 in 1819, 1 to 1 in 1837, but only about 0.6 to 1 in 1860.” (p. 667)

Phillips saw the divergence between cotton and slave prices as an indication of unsustainable speculation. As Fogel and Engerman (1974) put it: “To [Phillips] the ratio of cotton to slave prices was as crucial in evaluating the wisdom of an investment in slaves as the price-to-earnings ratio was for evaluating the wisdom of an investment in corporate stocks.... The data assembled by Phillips showed that the ratio of slave to cotton prices rose by over six fold between 1805 and 1860. A change of this magnitude clearly indicated to Phillips that, by the last decade of the antebellum era, slave were overvalued – that is, price too high to permit an investor to earn a normal rate of profit....The rise, Phillips concluded was primarily the consequence of speculation. The supply of slave had been ‘cornered’ as a consequent of the

closing of the slave trade. Hence ‘it was unavoidable that the price should be bid up to the point of overvaluation.’” (pp. 61ff).

Contrary to Phillips, Fogel and Engerman (1974, pp91-93) argued that the rising ratio of slave prices to cotton prices reflected a legitimate market perception of increased productivity in cotton cultivation. “Among the developments which made cotton farming increasingly more efficient were the improvements in the varieties of cotton seeds, the introduction of the cotton gin, the reduction in transportation and other marketing costs, and the relocation of cotton production in the more fertile land of the New South.” Like Fogel and Engerman, Gray concluded that the effect on revenues of the production expansion had more than offset its effects on cotton prices: “In the last five years of the period cotton sold at prices that were highly remunerative, especially considering the fact that the average annual product of the five years was much larger than it had ever been before. In the Cotton Belt, therefore, as in other parts of the South, the Civil War brought to a close a period of exceptional prosperity.” (p. 700).

Expectations of future conflict and the disruption of the slave trade may have also affected the connection between slave and cotton prices. According to Walter Johnson (2013, p. 374f), by the “late 1850s, the price of slaves seemed to cut loose from all other prices in a cycle of speculation that observers termed ‘the Negro fever.’ ... The combination of relatively high cotton prices and fears about the future of the institution (particularly in the Upper South) combined to convince Deep-South planters that they needed to get their hands on as many slaves as they could in order to insulate themselves from whatever political misfortunes might befall the institution as a whole.”

The *changing* relationship between cotton and slave prices – something about which all of these researchers agree – raises potential problems for our counterfactual estimation. It is important to recognize that there is no theoretical presumption that the relationship between the two should be positive. If cotton price variation were driven entirely by transitory shocks to supply and demand (that is, shocks viewed as transitory by slave market participants) then there should be no observed relationship between slave and cotton prices. If the *persistent shocks* affecting the price of cotton (that is, those that slave market participants expected to persist) were exclusively *demand-side* shocks, then the relationship between cotton and slave prices should be positive. If the persistent shocks were exclusively supply-side shocks, then the relationship between cotton prices and slave prices could be either positive or negative, depending on the elasticities of supply and demand in the cotton market (which would determine the relationship between supply shocks and revenue changes).

To arrive at a better understanding of the relationship between cotton and slave prices, we first perform a simple analysis of the co-variation of the percentage change in cotton prices with the annual percentage change in the quantity of cotton produced. Figure 5 illustrates a striking fact: the correlation between the quantity and price of cotton is positive (0.319) from 1815 to 1850, but is negative (-0.217) from 1851 to 1861. From this admittedly simple analysis, it appears that demand shocks dominated the cotton market prior to 1850, but that supply shocks (related to changes in productivity) dominated the market after 1850.

Because slaves were valued as financial assets, supply shocks need not imply a negative correlation between slave prices and cotton prices. Only if market participants anticipated such supply shocks to persist might one expect such a relationship. The only way to measure market participants' views of the changes in the nature of persisting shocks is to look at the connection

between cotton prices and slave prices. In light of the previous discussion, we estimate a counterfactual model of slave prices which includes covariates for the price of cotton and the price of the British consol. (The consol is a long-term asset, and its price variation is likely to be largely but not entirely exogenous to political news coming from the United States.) The results for this model are presented in Table 2, regression 2. The estimated regression coefficient for the logarithm of cotton prices is negative and statistically different from zero. Consistent with our earlier finding, the negative coefficient suggests that persistent supply-side shocks dominated the cotton market during this time period. In addition, because higher consol prices imply lower discount rates, we predict a positive correlation between log of slave prices and the log of consol prices. Indeed, we find that the estimated regression coefficient is positive, although it is not statistically different from zero.

The monthly average residuals for regression 2 are plotted in Figure 6. It is notable that the qualitative results derived regressions 1 and 2 are quite similar. In particular, we find that slave prices decreased by 10 to 20 percent during the fall of 1860 and they that continued to decline during the early stages of the War. Of course, none of these approaches is perfect as a means of removing the influence of demand and supply shock in the cotton market on slave prices. If some years – 1860, in particular – saw a mix of both persistent supply and demand shocks (which is consistent with the view of Wright 1978), then a counterfactual model that imposes a stable relationship between cotton prices and slave prices would understate the effect of the cotton market on slave price increases in 1860. This possible counterfactual misspecification could lead one to overstate the extent of the decline in slave prices from their 1860 peak. We return to this issue in our discussion of slave price changes below.

## V. Political and Economic Events Seen through the Lens of Regression Residuals

Are there clear connections between the historical narratives of the political struggle over slavery and the various residual plots that are implied by our counterfactual models? Figure 6 displays rises and falls in slave prices that coincide in plausible ways with the major political events of the time. There is a significant rise in slave values around the announcement of the Dred Scott decision. Slave prices are 5-10% higher in March-May than in February 1857. The adverse economic effects of the Panic of 1857, which begin (according to Calomiris and Schweikart (1991)) as early as May 1857, and the recession that coincided with it, may explain why that rise did not persist. There was also an increasing awareness over time that the Dred Scott decision would provoke active opposition in the North, which would target overturning the decision. The combined effect of these events results in a 30% reduction in slave prices by the end of 1857.

Beginning in January 1858, slave prices increase rapidly, reaching a peak sometime in early 1860. We can think of specific political events in 1858, 1859 and early 1860 (for example, events related to the disposition of Kansas) that coincided with the ups and downs of slave prices, but we find the broader narrative of the trends in the graph more convincing. Around the time of Lincoln's nomination in May 1860 slave prices begin to fall. Lincoln's nomination and election correspond to a sharp downward trend in residuals. The secession of the Deep South in December 1860-January 1861 is not associated with any noticeable improvement in slave prices. March and April of 1861 are associated with some temporary improvement in slave prices. But after hostilities begin, from May onward, the price of slaves gathers increasing negative momentum. We interpret this as reflecting the news of Lincoln's rejection of the legitimacy of Southern secession, and his decisions to blockade Southern ports, amass troops, and prepare for

invasion. Although the initial battleground victory of the South at the Battle of First Manassas in July 1861 seems to have had a positive initial influence on slave prices, prices declined sharply in August.

The peak-to-trough decline in slave prices from June 1860 to August 1861 is roughly 33%. If the contemporaneous value of slave capital equaled \$3 billion, then this price decrease represents a capital loss of approximately \$1 billion (in 1860 dollars). Although the increasingly demonstrated resolve of the North to fight the Civil War in the weeks and months after mid-April 1861 probably provides the best explanation for the catastrophic fall in slave prices during 1861, the large negative August 1861 residual may overstate the extent of that decline owing to the small sample size for that month. Taking into account both the potential influence of the cotton market in early 1860 and the small sample size of August 1861, a more conservative peak-to-trough decline estimate for slave prices would be in the neighborhood of 25%.<sup>16</sup> In future versions of this paper, we plan to extend our analysis into the rest of 1861 and 1862, and come to grips better with the high-frequency changes in slave prices in the summer of 1861. We note, however, a challenge in doing so: not only is the August volume of sales unusually low – even for August – it is also the case that the volume of sales remains depressed in the fall of 1861 to an extent not seen in prior years.

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<sup>16</sup> Our use of the New Orleans short staple cotton price in modeling the counterfactual slave price series may lead to a slight under-estimation of the decline of slave prices from late 1860 to April 1861, and a slight over-estimation of the decline in slave prices subsequently. Note that our counterfactual model uses the log of cotton prices, which enters with a negative sign. By using cotton price in the counterfactual model, we implicitly assume that changes in cotton prices are themselves not affected by political events. It may be that some of the increase in cotton price through the April 1861 peak in the series reflected concerns about the effects on cotton price of political events. After April, the cotton price falls somewhat, reflecting the abundance of cotton in the South due to the blockade against the South, and the South's early 1861 decision to embargo cotton shipments, which was clearly a response to a political event. In addition, earlier cotton price increases may have been influenced by decisions made by European textile manufacturers who anticipated supply disruptions caused by the coming war.

## VI. Expectations and the Relative Prices of Slaves

The decrease in slave prices during and after the summer of 1860 is consistent with increased pessimism regarding the future of slavery. Because slaveholders valued slaves as financial assets, slave prices should have equaled the discounted present value of their expected future earnings. To the extent that political news led buyers of slaves to think that they might lose ownership of slaves at some future date as the result of emancipation without compensation (for slaveholders) they would have reduced the price they were willing to pay for slaves. On the other hand, it is not clear that the political news of 1860 and 1861 should be seen primarily as affecting the probability of emancipation without compensation. After all, emancipation without compensation would have been unprecedented. Given the legality of slavery in the rebel states and elsewhere, as of 1860 or 1861 it likely would have been seen as an illegal taking.

An increase in the probability of emancipation without compensation is not the only possible explanation for the decrease in slave prices during 1860 and 1861. For example, the increased probability of regional conflict likely would have lowered expectations for the southern economy's ability to sell its produce on international markets, which would have reduced expected income and, in turn, would have also reduced the prices of slaves. Furthermore, because slaves constituted a large part of southern wealth, any taxation to pay for the South's war efforts would have fallen largely on slaveholders. Whether taxes were expected to be levied on income or wealth, the effect would have been the same: even if the war was expected to end in a stalemate or a southern victory, a large and costly Civil War would have hurt slaveholders and reduced the market value of their slaves.

Was the decline in slave prices primarily due to fears of emancipation without compensation or some other expected consequence of the struggle over slavery? Changing

expectations regarding possible emancipation without compensation should have affected the prices of some slaves more than others. In particular, in response to news that increased the perceived likelihood of emancipation without compensation, the prices of children (and women of childbearing age) should have fallen more than those of other slaves. The earnings of young children, net of maintenance costs, were negative (Fogel and Engerman, 1974). They sold for positive market prices only because buyers anticipated increased future earnings from the slaves as they matured. Because emancipation without compensation would eliminate that source of future income for the slaveholder, political news that increased its likelihood should have reduced the prices of children relative to those of adults. Similarly, increased expectations of future emancipation without compensation should have reduced the market value of the childbearing capacity of a young adult female slave, thus decreasing her price relative to those of other slaves.

These considerations give rise to two testable implications about the “emancipation without compensation” hypothesis: if the probability of emancipation without compensation is rising over time, then (1) the age-price profile should change over time to reflect the declining relative value of children and young women, and (2) for a time invariant age-price profile, the regression residuals for children and childbearing women should decline more than those for other slaves.

Age-Price profiles have been estimated by different researchers using a variety of different data sources (Fogel and Engerman 1974; Kotlikoff 1979; Levendis 2007; Choo and Eid 2008; Chenny, St-Amour and Vencatachellum 2003; Friginals, Klein, and Engerman 1983; Margo and Steckel 1982; Newland and Segundo 1996; Calomiris and Pritchett 2009). Although the exact regression specification varies, most authors use a high order (6<sup>th</sup> degree) polynomial to

estimate this relationship (Fogel and Engerman 1974). The shapes of these age-price profiles are remarkably similar. The estimated price of a newborn infant is positive but relatively low (recall the debate between Fogel and Engerman (1974) and Gutman and Sutch (1976, pp. 158-161) regarding the value of a so-called ‘birthright’). Prices rise with age and, for female slaves, reach a peak in their late teens or early twenties. The prices for males peak in their lower to mid twenties. For older slaves, prices decrease with age yet remain positive even for slaves in their fifties and early sixties.

Rising expectations of emancipation without compensation should affect the shape of the age-price profile in a predictable fashion. As argued by de Mello (1992), the prices of prime-aged slaves (those in their twenties) should fall relative to those of older slaves because of the reduced length of their working life under slavery. Indeed, de Mello finds precisely this empirical result for Brazilian slaves immediately prior to emancipation in that country. And as we point out above, the prices of children also should have fallen relative to those of adults. In unreported regressions, we estimate the age-price profiles that plot the relationship between a slave’s age and his/her price for different time periods and plot the estimated age-price profiles in Figure 7. All profiles exhibit the same basic shape: Children command positive prices for all of the time periods, prices reach a maximum for slaves in their early twenties, and older slaves sold at discount relative to slaves aged twenty years. Note that we do not observe a flattening of the age-price profile, as predicted by de Mello (1992) if buyers expected slaves to be emancipated in the near future. The similarity of these profiles suggests that slaveholders were not reassessing the probability of the future emancipation of their slaves.

A closely related test of the emancipation without compensation hypothesis focuses on the residuals of various subgroups in a model that does not allow the age-price profile to vary

over time. Using regression 1 from Table 2, which assumes a time-invariant age-price profile, we plot the residuals for different subgroups of slaves. If the assumption of a constant age-price profile were incorrect, then the residuals for the subgroups that include children (aged 0 to 12 years) and young women (aged 16 to 28 years) should decline faster than the other residuals. As seen in Figure 8, the residuals for both children and young women decrease at approximately the same rate as those for all slaves in the sample. (Note that the residuals for children appear to be more volatile than those for other slaves because relatively few children were sold separately.) The uniform decline in prices suggests that rising expectations of emancipation without compensation was not the cause of the observed decrease in slave prices following Lincoln's nomination in summer 1860.

## VII. Conclusion

The Civil War remains a puzzling event in American political and economic history. Clearly, those who most pushed for secession – slave owners in the Deep South – were also the ones most harmed ultimately by the outcome of the Civil War. A close examination of slave prices from October 1856 through August 1861 shows that they can be a useful tool for gauging how slave market participants viewed the consequences of political events for the risks that attended slave ownership.

One of the most daunting challenges of identifying linkages between slave prices and political events is the construction of a counterfactual model of economic fundamentals to serve as a benchmark against which movements in actual slave prices related to political events can be gauged. Recognizing that the relationship between cotton prices and slave prices changed dramatically in the 1850s, we estimate this relationship in our empirical analysis. The implied

time series of slave price residuals that we derive in Figure 6 – which we argue should capture movements in slave prices that are related to political events – displays patterns that coincide reasonably with the dominant political events of the time. The Dred Scott decision was associated with an increase in slave prices. The nomination and election of Lincoln were associated with negative changes in slave prices. The most important negative movements in the value of slaves came in the late spring and summer of 1861, after Lincoln took office and demonstrated a resolve to blockade and invade the South. Furthermore, the price decrease seems not to have been driven primarily by fears of emancipation without compensation for slaveholders. Rather, the price decrease was more generally the result of rising fear of war and its economic consequences for slaveholders— something that slave-owning advocates of secession had bet against.

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Table 1: Significant Political Events Related to the Civil War, 1857-July 1861

March 6, 1857	Supreme Court's <i>Dred Scott</i> decision is announced.
October 1857	Banking Panic of 1857
April 1, 1858	US House of Representatives rejects Kansas statehood under the Lecompton constitution
November 2, 1858	Stephen Douglas defeats Abraham Lincoln for US Senate. Douglas advocates so-called "Freeport Doctrine," a <i>de facto</i> rejection of the <i>Dred Scott</i> decision.
June 7, 1859	Kansas election of delegates to Wyandotte Constitutional Convention (in which Republicans elected 35 delegates against the Democrats' 17.
July 5, 1859	Wyandotte Constitutional Convention meets
October 4, 1859	Ratification (by popular vote) of Wyandotte Constitution, despite Democratic opposition
October 16, 1859	John Brown's Raid on Harper's Ferry
December 2, 1859	John Brown is executed
April 23-May 3, 1860	National Convention in Charleston splits the Democratic Party, helps to ensure Republican victory.
May 8, 1860	Abraham Lincoln nominated as US Republican Presidential Candidate
November 6, 1860	Lincoln wins the Presidential election
December 18, 1860	Crittenden Compromise proposed in US Congress to preserve slavery in South
December 20, 1860	South Carolina secedes
January 9, 1861	Mississippi secedes
January 10, 1861	Florida secedes
January 11, 1861	Alabama secedes
January 18, 1861	Georgia secedes
January 21, 1861	Louisiana secedes
January 29, 1861	Kansas becomes admitted as a state
February 1, 1861	Texas secedes
February 4, 1861	Confederate States of America are formed
February 1861	Attempted Peace Conference
March 2, 1861	Corwin Amendment Passed by US Congress
March 4, 1861	Abraham Lincoln is inaugurated
March 11, 1861	Confederate States Constitution adopted
April 12, 1861	Confederacy fires on Fort Sumter
April 17, 1861	Virginia secedes
May 6, 1861	Arkansas secedes
May 7, 1861	Tennessee secedes
May 13, 1861	Queen Victoria recognizes the Confederacy as having "belligerent rights," signaling possible British intervention on their behalf.
May 20, 1860	North Carolina Secedes
May 23, 1861	West Virginia secedes from Virginia
July 21, 1861	First Battle of Manassas, Confederate victory
July 25, 1861	Crittenden-Johnson Resolution to preserve the Union

Table 2  
Regression Results: New Orleans Conveyance Office Slave Sale Records

Covariate	Regression 1		Regression 2		Descriptive Statistics	
	estimated coefficient	Std. error	estimated coefficient	Std. error	Mean	Std. dev.
Dependent variable: Logarithm of slave's price					6.907	0.502
Logarithm of monthly cotton price			-0.632*	0.166	2.444	0.085
Logarithm of British consol price			0.828	0.682	4.548	0.021
Male (1=yes, 0=no)	0.326*	0.074	0.318*	0.073	0.468	0.499
Light-colored female (1=yes, 0=no)	0.029*	0.011	0.030*	0.011	0.147	0.354
Light-colored male (1=yes, 0=no)	-0.018	0.012	-0.019	0.012	0.090	0.287
Male sold with guarantee (1=yes, 0=no)	0.115*	0.052	0.143*	0.050	0.446	0.497
Female sold with guarantee (1=yes, 0=no)	0.314*	0.048	0.333*	0.048	0.510	0.500
Number of children, ages 1-2, sold with mother	0.033*	0.017	0.030	0.017	0.057	0.245
Number of children, ages 3-5, sold with mother	0.174*	0.017	0.172*	0.017	0.038	0.204
Number of children, ages 6-9, sold with mother	0.344*	0.016	0.342*	0.017	0.039	0.217
Sold on credit (1=yes, 0=no)	0.064*	0.008	0.063*	0.007	0.242	0.428
Skilled worker (1=yes, 0=no)	0.295	0.152	0.273	0.152	0.002	0.045
Female with household occupation (1=yes, 0=no)	0.173	0.097	0.167	0.094	0.001	0.028
Male with household occupation (1=yes, 0=no)	0.346*	0.129	0.282*	0.118	0.000	0.017
Unskilled worker (1=yes, 0=no)	-0.049	0.114	-0.064	0.094	0.000	0.017
Sold with family member (1=yes, 0=no)	-0.051*	0.020	-0.045*	0.022	0.104	0.305
Buyer from New Orleans (1=yes, 0=no)	-0.069*	0.011	-0.066*	0.011	0.659	0.474
Sold at estate sale (1=yes, 0=no)	-0.067	0.035	-0.068	0.035	0.029	0.168
Emancipation or self purchase (1=yes, 0=no)	-0.169*	0.063	-0.168*	0.062	0.009	0.092
Sold in group of 2 to 5 slaves (1=yes, 0=no)	0.127*	0.014	0.121*	0.013	0.226	0.419

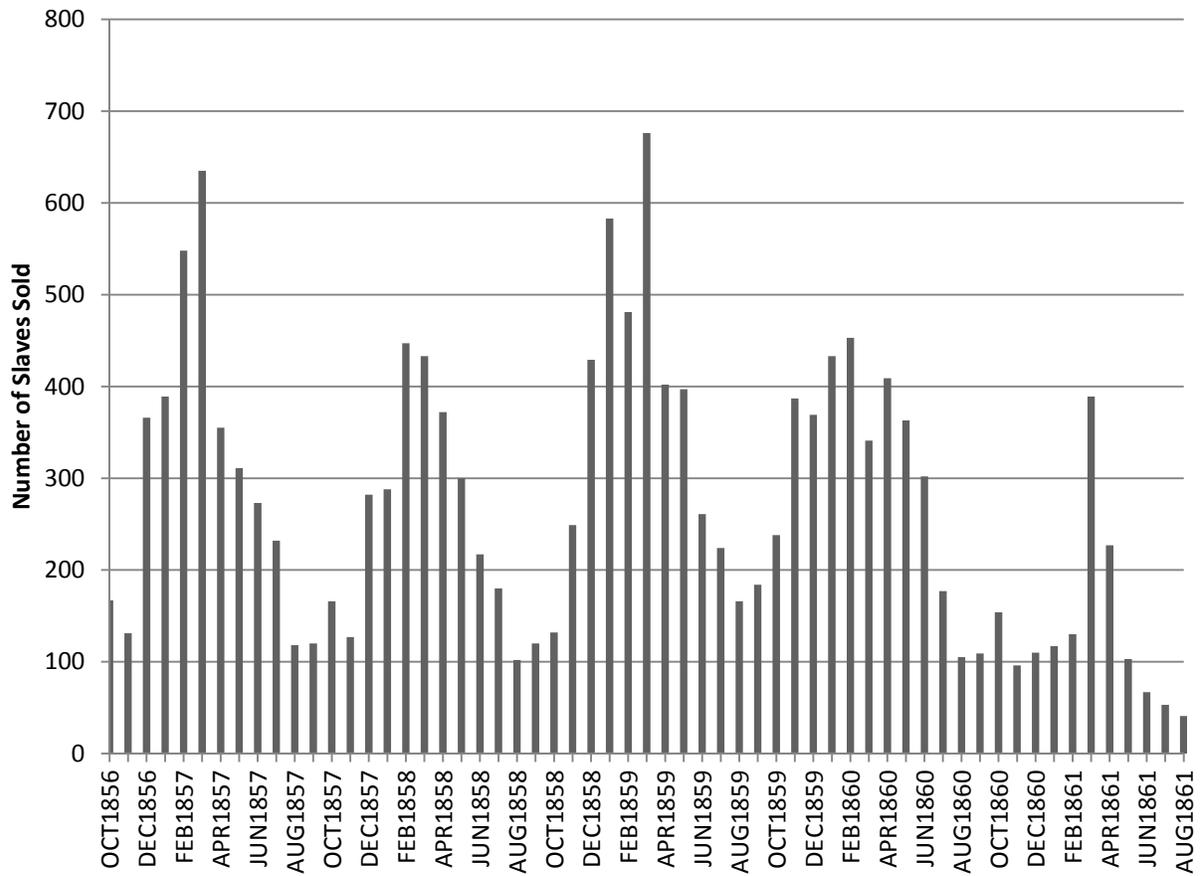
Table 2  
Regression Results: New Orleans Conveyance Office Slave Sale Records

Covariate	Regression 1		Regression 2		Descriptive Statistics	
	estimated coefficient	Std. error	estimated coefficient	Std. error	Mean	Std. dev.
Sold in group of 6+ slaves (1=yes, 0=no)	0.140*	0.018	0.127*	0.016	0.139	0.346
Age in years	0.322*	0.024	0.327*	0.025	25.452	10.827
Age <sup>2</sup> · 10 <sup>-2</sup>	-1.551*	0.265	-1.595*	0.267	7.650	6.732
Age <sup>3</sup> · 10 <sup>-3</sup>	0.373*	0.139	0.390*	0.140	26.556	36.908
Age <sup>4</sup> · 10 <sup>-4</sup>	-0.053	0.036	-0.057	0.036	103.848	204.588
Age <sup>5</sup> · 10 <sup>-5</sup>	0.004	0.005	0.005	0.005	446.368	1183.410
Age <sup>6</sup> · 10 <sup>-6</sup>	-0.0001	0.0002	-0.0002	0.0002	2067.320	7180.360
January (1=yes, 0=no)	0.017	0.071	-0.03	0.058	0.114	0.318
February (1=yes, 0=no)	0.021	0.077	-0.015	0.055	0.125	0.331
March (1=yes, 0=no)	0.013	0.065	-0.009	0.052	0.141	0.348
April (1=yes, 0=no)	0.048	0.061	0.048	0.048	0.109	0.311
May (1=yes, 0=no)	0.042	0.074	0.023	0.054	0.091	0.288
June (1=yes, 0=no)	0.013	0.080	-0.005	0.059	0.076	0.265
July (1=yes, 0=no)	-0.014	0.073	-0.012	0.043	0.051	0.220
September (1=yes, 0=no)	0.051	0.085	0.054	0.051	0.034	0.182
October (1=yes, 0=no)	0.024	0.085	-0.004	0.06	0.054	0.226
November (1=yes, 0=no)	0.039	0.092	-0.016	0.077	0.067	0.250
December (1=yes, 0=no)	0.002	0.078	-0.05	0.063	0.103	0.304
Intercept	4.206*	0.114	1.969*	3.258	1	
Number of observations	10177		10177			
F-statistic	361.860*		338.040*			
R <sup>2</sup>	0.576		0.589			
Root MSE	0.328		0.323			

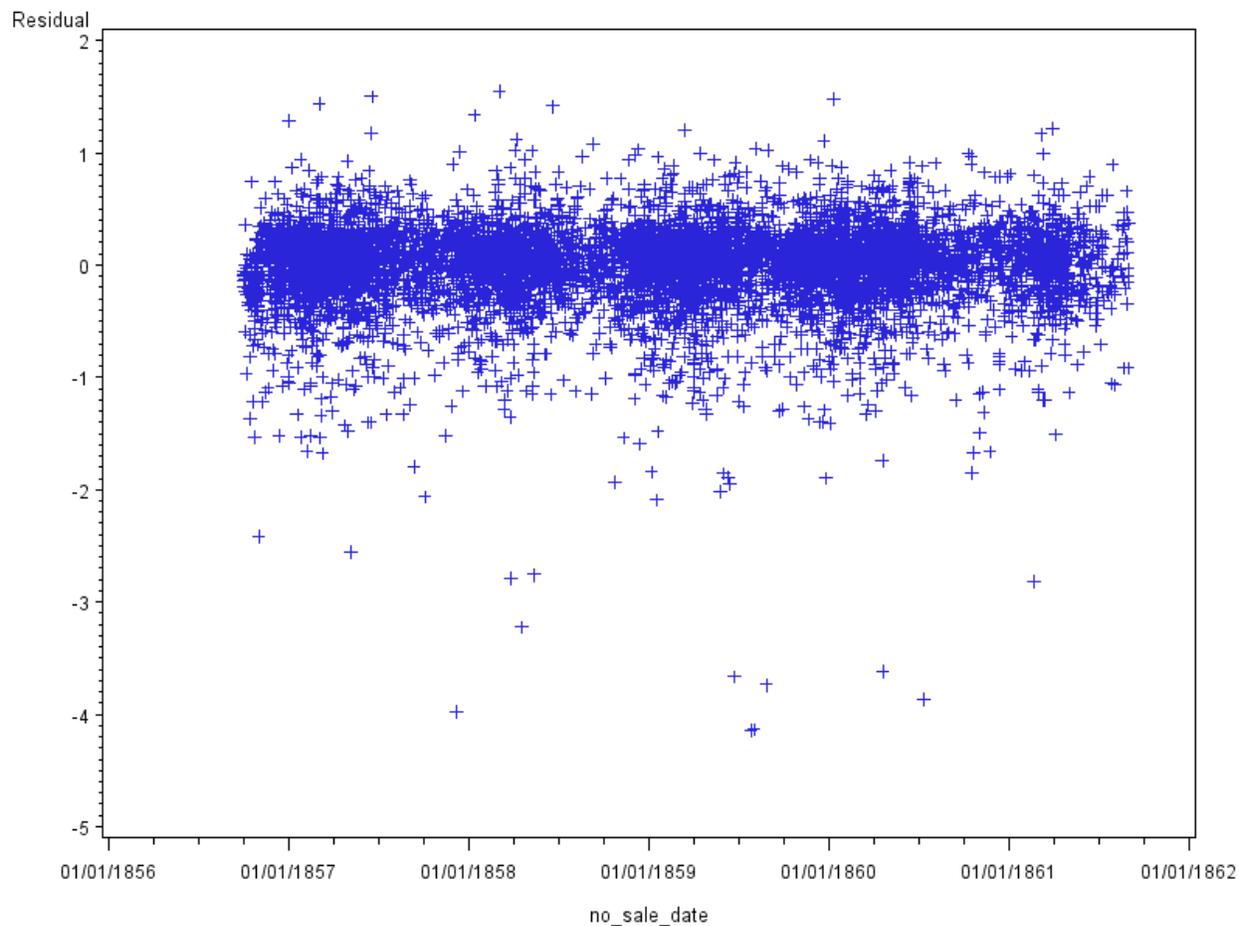
Source: Slave sale data: New Orleans Conveyance records. Cotton prices: L. C. Gray, History of Agriculture in the Southern United States to 1860 2 (Carnegie Institution of Washington, Washington, 1933), p. 1027. The British consol price is the end-of-month closing price on 3% consols.

Note: The dependent variable is the logarithm of the slave's price. Robust standard errors clustered by month of sale. Sample includes New Orleans slaves for whom the sale price pertain only to the principal slave. The omitted variable refers to an unguaranteed dark-colored female, sold singly for cash to an out-of-town buyer in August.

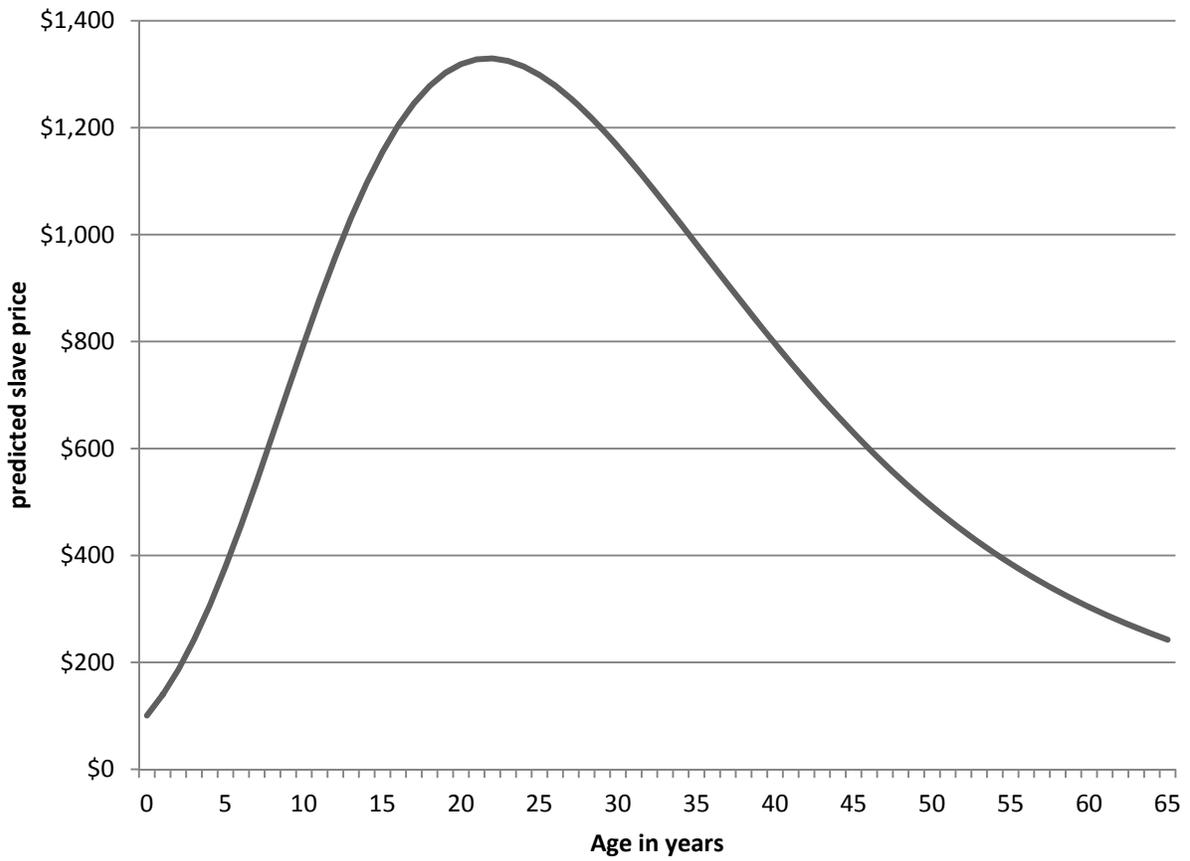
\* indicates the regression coefficient is statistically different from zero at the 5 percent level.



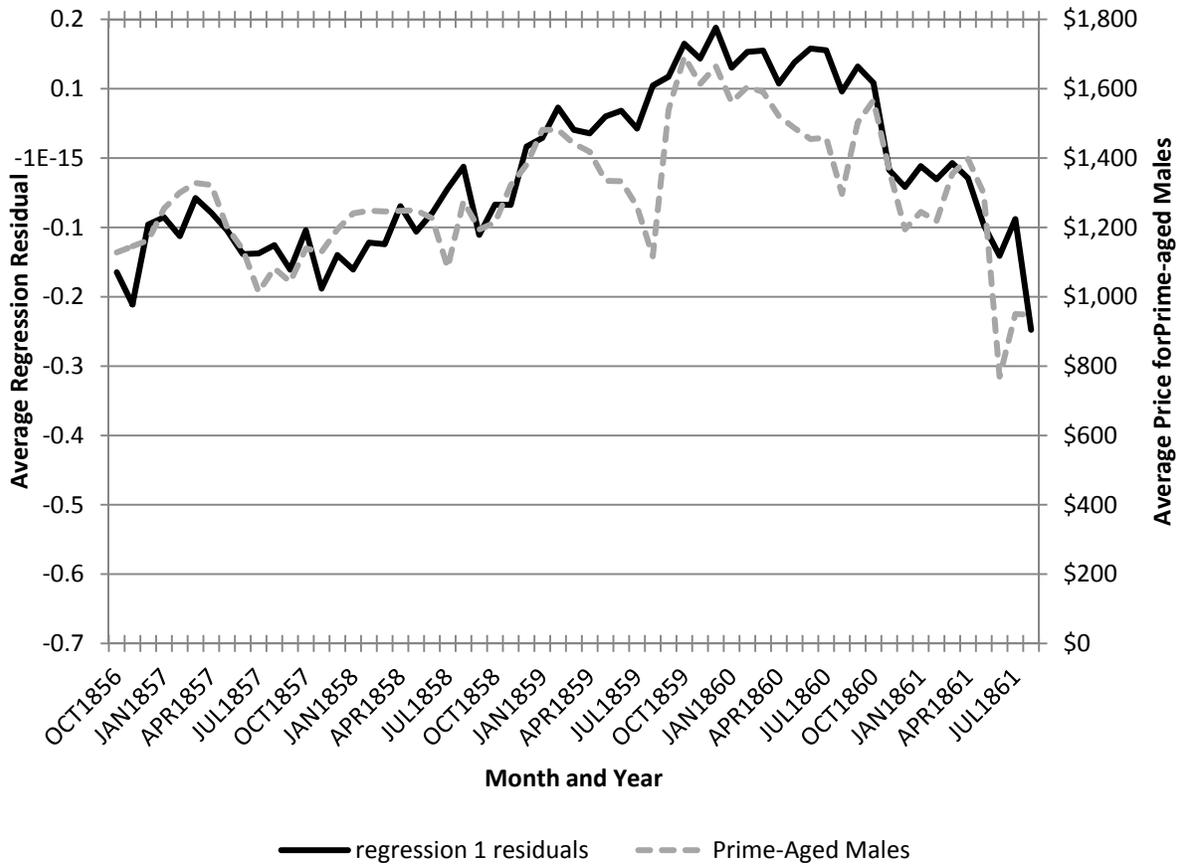
**Figure 1 -- Frequency of New Orleans slave sales, 1856 – 1861, Conveyance records**



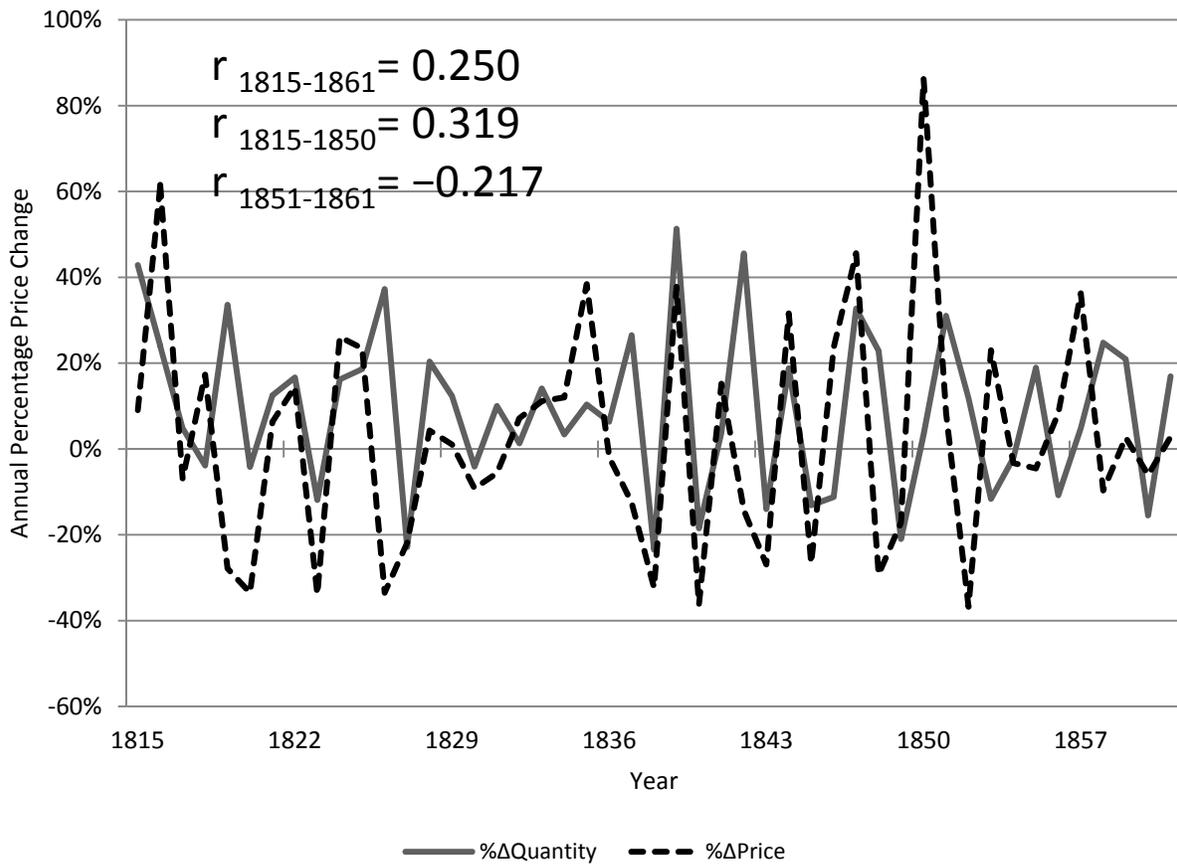
**Figure 2 -- Individual Residuals of Observations from Regression 1, Table 2.**



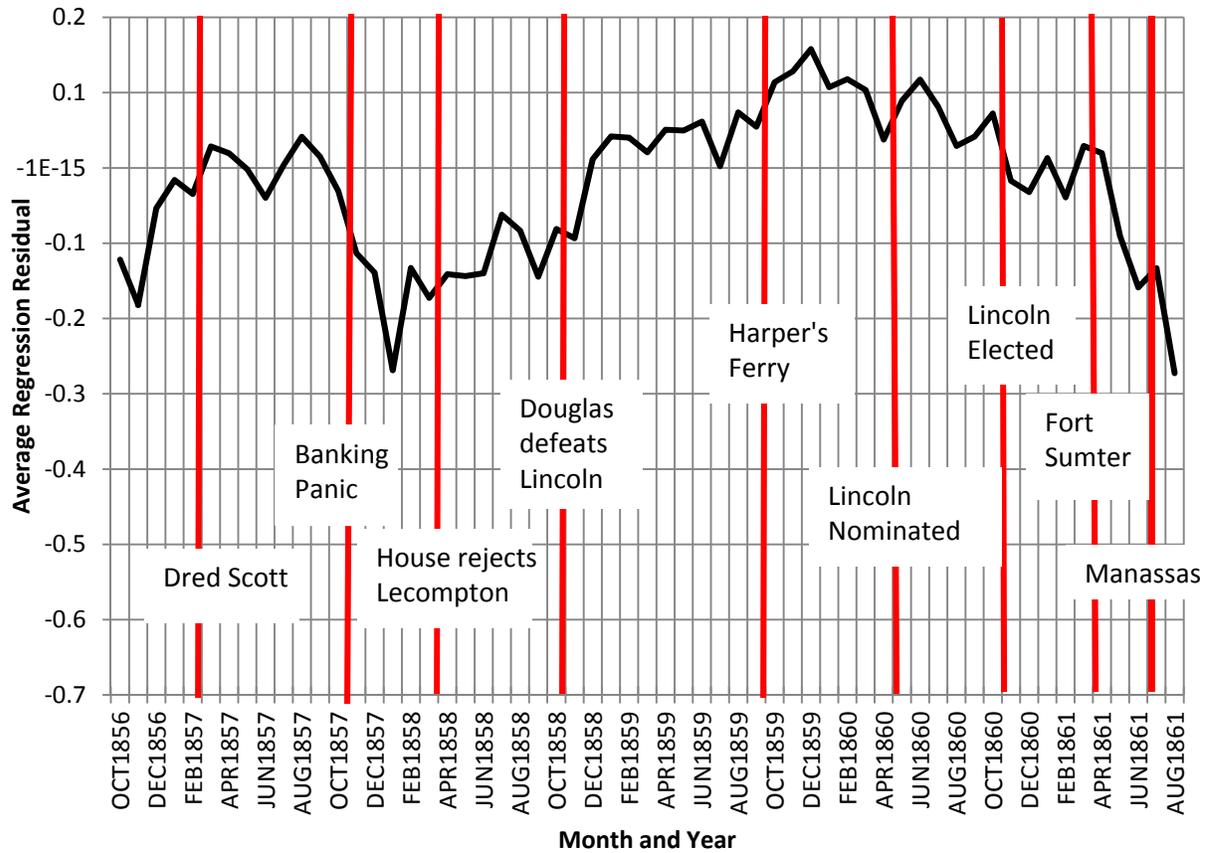
**Figure 3 -- Predicted Age-Price Profile from Regression 1, Table 2.**



**Figure 4 – Plot of monthly means of residuals from Regression 1, Table 2.**

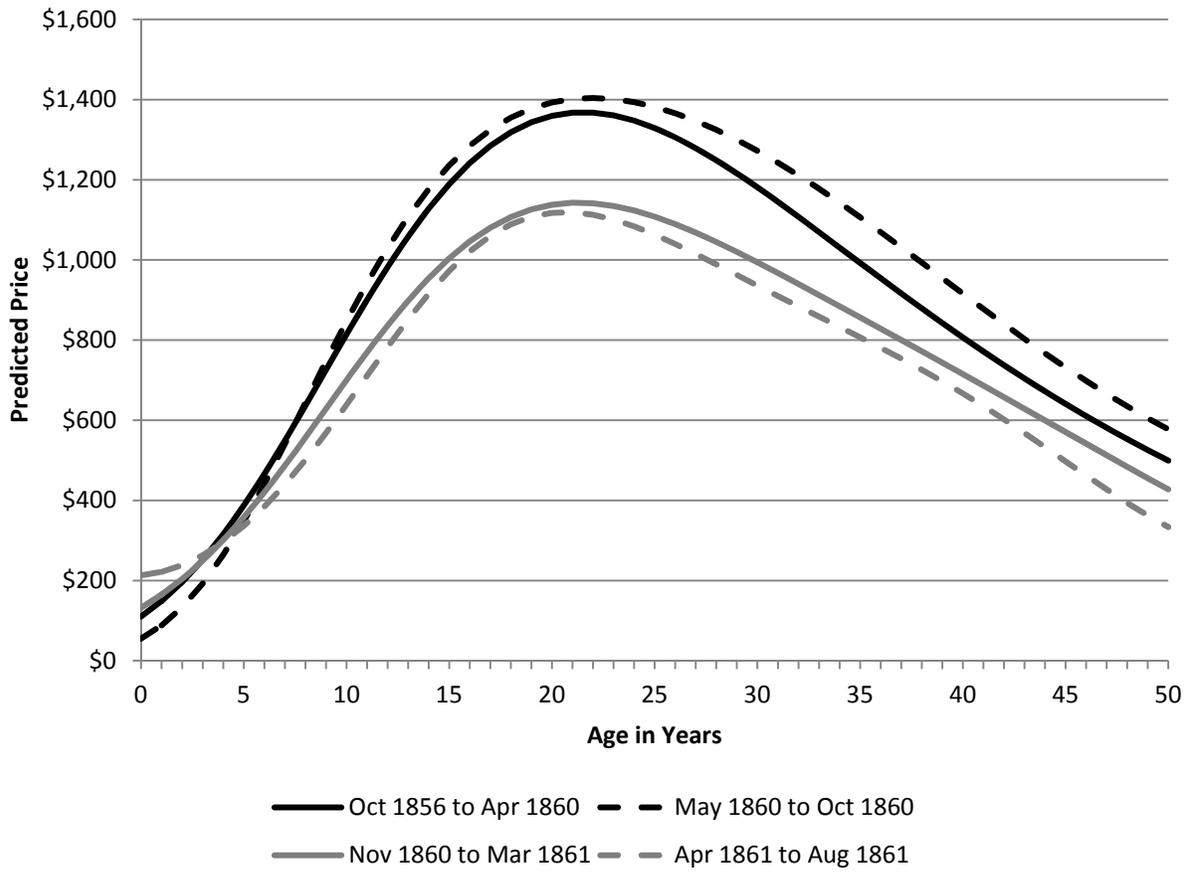


**Figure 5 -- Annual Cotton Prices and Production**

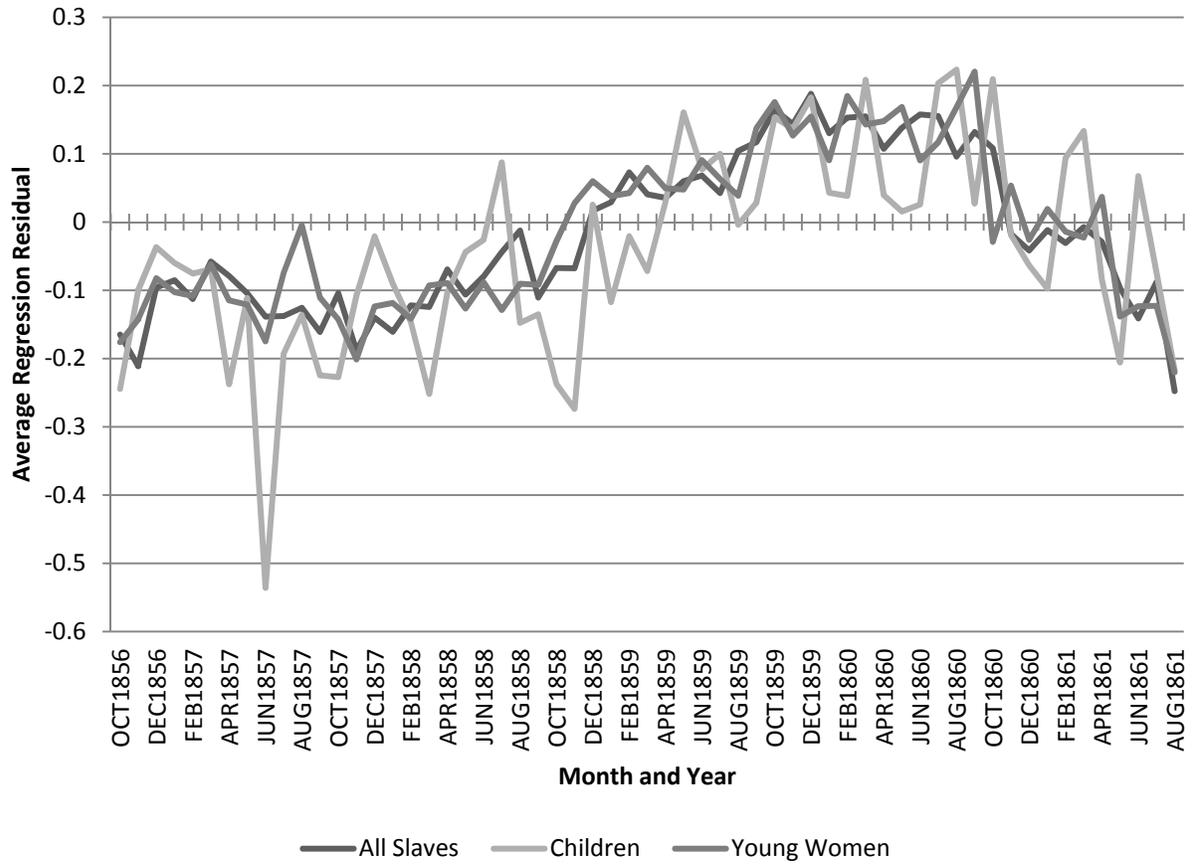


**Figure 6 - Index of slave prices, Oct. 1856 - Aug. 1861**

Source: regression 2, Table 2.



**Figure 7 -- Predicted Age-Price Profile for Unskilled Males sold with Guarantees**



**Figure 8 - Plot of monthly mean of residuals for Regression 2, Table 2.**