The Mid-Atlantic Labor Market in the Early 19th Century

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The Regional Economic History Research Center has recently mounted an ongoing research effort aimed at reconstructing the economic history of the mid-Atlantic region during the period of industrialization. As a part of this cooperative effort the present study focuses on the worker of the mid-Atlantic region between the last decades of the 18th century and the Civil War. More precisely, the study will deal with two broad areas. The first is the structure and performance of the labor market in the mid-Atlantic region during the antebellum years and the second is the important question of changes in the standard of living during an era of rapid change and development.

For the purposes of analysis I define the mid-Atlantic region as the New York-Philadelphia-Baltimore axis, including its hinterland. Within this area are found a wide variety of cities, towns, and subregions which nonetheless share certain common characteristics and experiences. The area contains three great port cities: Philadelphia, the early leader; New York, destined to assume the leading role by the 1820s; and Baltimore, a rapidly growing outlet on the Chesapeake. The region also contains smaller ports, such as Annapolis and New Castle which declined in importance during the 19th century as population and commerce became increasingly concentrated in the major coastal cities. Interior cities such as Lancaster, Reading, and York developed as the commercial centers for the rich farmlands of eastern Pennsylvania and had their counterparts in New York, New Jersey, Delaware, and Maryland. In 1800 as in the years before, the labor force of the mid-Atlantic region and the nation as a whole was overwhelmingly rural and agricultural. The appearance of factories on the Hudson, Schuylkill, and the Brandywine during the early 19th century, however, was a precursor of dramatic and often traumatic change over the next half-century. Ultimately, the process of industrialization was to transform the great commercial cities of the mid-Atlantic from entrepôts for imported goods and the agricultural surplus of American farms into modern, urban-industrial

complexes with all the costs and benefits which accompany this process. On the eve of the Civil War the inhabitants of the mid-Atlantic region were no longer primarily rural nor did a majority of them earn their livelihood in agricultural pursuits.

My analysis of labor markets will begin with a consideration of the supply and demand for labor. On the supply side it is particularly crucial to distinguish those factors which governed the short-run supply of labor from those which determined the long-run. In the short run the work-leisure tradeoff plays a pivotal role in determining the supply of labor, raising the question of backward bending supply curves. The latter problem was particularly acute for newly established industrial enterprises which relied upon a dependable supply of labor to operate efficiently. The provision of company housing to reduce commuting time, the family employment policy, and the payment of deferred bonuses for continuous employment may all represent attempts to deal with the problem of negatively sloped supply curves.

In the long run, forces well beyond the control of employers determined the supply of labor. This study will focus on such variables as the domestic rate of population growth, the participation rate, immigration, and regional migration. The relative impact of each of these factors will be noted with the ultimate goal of quantitatively reconstructing the early 19th-century mid-Atlantic labor force. At this point other interesting, and as yet unanswered, questions present themselves. Did western migration play a significant role in the growth of the mid-Atlantic labor force as workers succumbed to the rewards of independent agriculture? Preliminary data indicate that a virtually inexhaustible supply of unskilled labor was available in the mid-Atlantic region at $1 per day in urban employment and 40 to 50 cents per day in agricultural pursuits throughout the entire antebellum period. The failure of such wage rates to rise in the face of rising demand over time is not suggestive of a shortage of labor. Were employers who complained of labor shortages really concerned with the long-run supply of labor or the short-run elasticity of the labor supply function? Were there perhaps powerful institutional forces, as yet unspecified, which kept the nominal wage rates of unskilled workers, and to a lesser degree those of skilled workers, at constant levels for long periods of time despite large and frequent fluctuations in prices? Was the inflow of workers by way of immigration and the strong rural-urban migration of the early 19th century sufficient to offset or more than offset any net regional outmigration of workers? The answer to these questions will contribute a great deal to understanding of the operation of labor markets during the era of industrialization.

The demand side of the labor market is less directly affected by noneconomic or institutional forces but hardly less compli-

cated. As a resource the demand for labor is derived from the demand for goods and services and dependent upon the technical conditions of production which govern labor productivity. In the short run with limited technical substitutability it is expected that the demand for labor will be relatively less elastic and change in response to changes in the product market. In the long run technology and hence substitutability become more important as agents affecting labor demand. The long-run pattern of real wages in the mid-Atlantic region prior to 1860 supports these assertions. Over the course of the business cycle real wages rose and fell as nominal wage rates consistently lagged changes in prices. Over the entire period 1790-1860, however, the real wage rates of both skilled and unskilled workers appear to have roughly doubled.

Such increases on an annual basis are not high by modern standards despite a rapid growth of output over the same years. A period of rapid economic development out of a mainly agricultural setting is not necessarily the best situation for workers. Under such conditions the industrial demand for labor will increase but

> a great reservoir of labor supply flows into industry as a result of a simultaneously occurring agricultural revolution. This labor supply does not require as great a lure of industrial wage increases, since its flow is partly forced and is still large in relation to the industrial demand [7, p. 118].

If we add to this the inflow of immigration and a high rate of natural population increase, it may be an achievement just to increase the supply of capital per worker.

How did the structure of demand change over time in the mid-Atlantic region? How did the income elasticity of demand affect the relative demand for various kinds of labor as income grew? Did technological change in the early 19th century tend to increase the relative demand for skilled labor as some have suggested [6], or was it perhaps the other way around? Finally, what was the connection between capital per worker, productivity, and the demand for labor in both farm and nonfarm pursuits? Each of these questions will be treated.

In a market economy prices constitute the principal allocating mechanism and this is no less true in labor markets. Disequilibrating forces will give rise to wage differentials and the response of workers to such differentials is the key to achieving an efficient allocation of labor resources. If the market is operating efficiently labor mobility *at the margin* will erase most differentials with the exception of those relating to the nature of employment or those justified on economic grounds, such as differences which reflect the cost of relocation, the acquisition of skills, or the relative success of competing industries. Moreover, in the long run forces, both economic and noneconomic, may operate to reduce, if not eliminate, even these differentials. The efficiency of a given labor market can often

be evaluated by studying the relative size and variation of wage differentials. Since the allocation problem is no small matter, bearing as it does on society's ability to achieve maximum levels of output with a given supply of resources, a discussion of wage rate differentials forms a significant part of this study of the mid-Atlantic worker.

Wage rate differences in the early 19th century can be conveniently divided into four major categories: compensating differentials, skill differentials, geographic differentials, and industrial differentials. Of the first group I shall have little to say. Compensating differentials are a function of the nature of employment and thus operate entirely on the supply side of the labor market. Included under this heading are such factors as the pleasantness or unpleasantness of particular occupations, the amount of risk or responsibility involved or perhaps the probability of success. The relative size of such differentials is dependent upon the utility function of individual workers. In practice, it is often possible to do no more than predict the sign of the coefficients in such functions and compensating differentials are perhaps best treated as a residual. In this, I follow the lead of Adam Smith who considered such differentials the sole explanation for unequal wages, once the competitive marketplace had reached an equilibrium in all other respects.

Skill differentials have the advantage of being quantitatively measurable. A common gauge of skill differentials is the comparison of wage rates for a group of the most highly skilled with those of the least skilled. An alternative is to provide a measure of relative dispersion, such as the coefficient of variation, for the entire occupational structure. Table 1 presents both measures, since they need not move in the same direction. That is to say, it is entirely possible for the coefficient of variation to decline while the ratio of a group of highest-paid workers to a group of lowest-paid remains stable or increases [9, p. 184].

Neither measure of skill differentials shows a significant long-run trend between 1790-1860 despite considerable short-run variation in the case of the skilled-unskilled ratio. It is interesting, at least for purposes of comparison, to look beyond the coverage of the present study. Wage rate data for the United States in the period 1860-90 indicate that skill differentials and levels of relative variance remained close to antebellum levels [7, pp. 143-44]. The mid-Atlantic skill differential of 1.68 in 1860 coincides with the US figure of 1.67 quite closely. Moreover, the US value of 1.70 in 1890 is quite close to the average mid-Atlantic differential of 1.71 for the period 1790-1830[1] [8].

The significance of this long-run stability of the skill differential is that it runs counter to the predicted narrowing of such differences. Some scholars assert that in the early stages of industrialization skill differentials are likely to be rela-

Table 1

SKILL DIFFERENTIAL AND COEFFICIENT OF VARIATION IN MID-ATLANTIC WAGES, 1790-1860

Year	Skilled/ Unskilled	Coefficient of Variation
1790	2.30	0.517
1795	1.54	0.313
1800	1.64	0.289
1805	1.64	0.303
1810	1.72	0.286
1815	1.82	0.306
1820	1.58	0.229
1825	1.57	0.259
1830	1.57	0.255
1835	...	...
1840	1.57	0.235
1845	1.45	0.271
1850	1.76	0.293
1855	1.82	0.310
1860	1.70	0.292

Sources: Donald R. Adams, Jr., "Wage Rates in the Early National Period: Philadelphia, 1785-1830," *Journal of Economic History*, Vol. 28 (September 1968), pp. 418-20, and US Bureau of Labor Statistics, Bulletin 499, *History of Wages in the United States from Colonial Times to 1928* (Washington, 1929).

tively high, although for slightly differing reasons. H. J. Habakkuk, for example, maintains that "in many cases the capital intensive technique required, for its construction and operation more skilled labor per unit of output than the labor intensive technique" [3, p. 21]. Thus, the introduction of capital-intensive techniques would raise the relative demand for skilled labor and the skill differential as well. A slightly different argument states that the inability of transferring old skills to the needs of an industrializing economy, coupled with the ease of those with obsolete skills in obtaining unskilled jobs, swelled the ranks of the unskilled with a subsequent rise in skill differentials. In the long run the differential will decline as workers seeking the higher returns of skilled occupations acquire the requisite training and move upward in the occupational structure.

Gary Becker, on the other hand, has denigrated the importance of relative changes in skilled and unskilled wages, concentrating instead on absolute differences. In a period of increasing wages, relative differentials may remain constant or even fall over time and still result in an increase in absolute differentials. Becker's contention is that a widening of absolute differentials will increase the supply of skilled workers via increased investment in training and skill acquisition [9, p. 86]. "This upward bias to the supply of skilled workers could thus serve as a forceful explanation of the secular percentage narrowing" which has been observed in the 20th century, "and as a basis for arguing that the narrowing trend will be resumed in the future" [9, p. 86]. In fact the decision to acquire a skill, in its economic dimensions, is similar to most economic decisions in that it involves the consideration of alternatives. Individuals will weigh the present discounted value of the future stream of income which flows from the skill against the present cost of acquiring the skill. For most individuals, however, the decision is not whether to acquire skills or not but whether to acquire a skill as opposed to some alternative investment in human or nonhuman capital. (Those who find such calculations unrealistic are directed to examine current trends in college enrollments versus vocational training or to ask their physicians the basis for their fee structures.) As long-run productivity gains raised the general level of wages absolute differentials grew, raising the internal rate of return on skill acquisition for any given discount rate. The failure of the skill differential to decline suggests that calculated returns in alternative ventures kept pace. Had such alternative opportunities become relatively more attractive by comparison a long-run increase in skill differentials would have resulted.

Thus, in the short run workers responded predictably to increases in relative and absolute skill differentials. In the long run, however, the gradual increase in absolute differentials was just sufficient to increase the returns to skill acquisition at about the same pace as alternatives such as independent agriculture, leaving long-term skill differentials unchanged.

Focusing on the short-run changes in skill differentials it is interesting to note that scholars not only predict a long-run decline in these ratios but also assert that this narrowing trend will be accentuated during booms and reversed in depressions [2, p. 330]. This countercyclical movement of the skill differential can be hypothesized from the supply or demand side of the market. In a downturn skilled workers are induced to seek unskilled jobs in preference to unemployment, swelling the ranks of the unskilled and raising skill differentials [11, p. 841]. On the demand side, recessions allow employers to tighten standards, thus squeezing unskilled workers out of the labor market. Moreover, since

skilled workers are more expensive to train, there will be a greater incentive to retain them even though variable wage costs may exceed current marginal revenue product [9, p. 99]. In either case the demand for skilled workers will fall less rapidly than that for unskilled and skill differentials will tend to increase.

The predicted countercyclical nature of the skill differential *is* visible in the preliminary figures for the mid-Atlantic region. The rapid increase in prices and improving economic conditions of the early 1790s saw a rapid decline in skill differentials. Poor years in 1798-1800, 1802-1803, 1807-1808, 1816-23, and the early 1840s all registered an increase. The worst inflationary years before 1860 were 1812-13 during which the skill differential fell from 1.77 in 1811 to 1.52 by 1813. Complaints of skilled workers during the years preceding 1837 indicate a decline in differentials as well [12, pp. 76-79]. By 1840 the differential stood at 1.57, down from 1.73 in 1830. A rise in the wholesale price index after 1849 was matched by a decline in the skill differential from 1.84 in 1850 to 1.68 in 1853. Not only did relative skill differentials move in the opposite direction as prices, absolute differentials did so as well. This fact, coupled with the hypothesized relationship between absolute skill differentials and the internal rate of return on skill acquisition, lays the basis for an interesting, if speculative, self-equilibrating model of the early 19th century labor market.

During the declining phase of the business cycle both relative and absolute skill differentials rise, increasing the returns to skill, a movement which is reinforced by declining rates of return in alternative investment opportunities. During the recovery phase the variables are reversed with both forces acting to reduce the incentive to acquire skills. Workers are encouraged to enter the skilled ranks during periods of recession providing the increase in the supply of skilled workers necessary to decrease relative skill differentials in the upswing. Therefore, the market forces on the demand side which operate to increase relative skill differentials in the labor market during recession help to promote the labor market supply conditions which eradicate these increases during the recovery. In this fashion long-run increases in the overall wage rate are consistent with a constant relative skill differential and an increasing absolute differential.

Ironically, proponents of the so-called "safety valve" hypothesis have argued that the relative returns in agriculture were relatively high during periods of recession, drawing large numbers of workers from the urban labor force. The process already outlined asserts that during recession the returns to the acquisition of skills are highest while the returns to alternative activities are falling.

Just as the failure of skill differentials to decline over time may indicate the ability of the labor market to maintain returns to skill acquisition at levels equivalent to alternative investments, the failure of skill differentials to rise may reflect a rather high degree of occupational mobility in the mid-Atlantic region.

Geographic differentials present us with a different set of questions and can be divided into two types: (1) differentials within the mid-Atlantic region; and (2) differences between the mid-Atlantic region and other regions or the United States as a whole. Studies for the *latter* half of the 19th century indicate that "the differentials between the Central states, the Middle Atlantic states, and the New England states may have been no greater than among states within these regions" [7, p. 110]. Was this the case in the decades preceding the Civil War or were these findings the result of a decrease in regionalism and the development of a national labor market? Recent studies, for example, indicate that workers may respond quite well to interstate wage differentials while workers who change jobs locally exhibit no clear tendency to move from lower- to higher-paying occupations [10, p. 438]. Preliminary results, based on very incomplete evidence, indicate that wage differentials within the mid-Atlantic region during the early decades of the 19th century were as large or larger than those which prevailed in the nation as a whole. Over time the intraregional differences for laborers declined; however, no such tendency was apparent for skilled occupations. Perhaps unskilled workers were more inclined to respond to intraregional differences than skilled workers. This is somewhat puzzling, however, since the costs of relocation were roughly equivalent for both groups but would represent a smaller relative burden to the higher wage group.

One scholar has suggested that capital flows may operate to bring about a more rapid equalization of unskilled wage rates. If capital flows from high-wage to low-wage regions, that is, from those with a low proportion of unskilled workers to those with a high proportion of unskilled workers, the productivity of unskilled workers in the low-wage region will rise and hasten the trend toward equalization. Moreover, equalization will take place more rapidly than if migration were the sole equilibrating force. Since the migration of capital reduces the migration of labor, it may help to perpetuate areas of low *average* wages [9, p. 133]. Clearly, a closer investigation of interregional and intraregional wage differentials is called for.

The geographic pattern of farm wages in the United States has been remarkably stable over time. The low-wage states in the 1860s remain the low- wage states today, although there has been some reduction in the spread between the highest and the lowest [13, p. 6]. Can the wage patterns of the 1860s for the mid-At-

lantic region be traced back to the early 19th century and if so how do we account for them? Modern studies show a close association between capital per worker, farm productivity, and farm wages. Why did capital migration not operate to equalize farm wages within the mid-Atlantic region? These are all questions which will be pursued in this study.

The final set of differentials to be considered relates to differences in wage rates between industries. Modern research indicates that interindustry differentials have been surprisingly stable over the long run [3, p. 354]. While there has been no consistent tendency toward compression of the wage structure, a narrowing has been noted during both extremes of the business cycle. Nonetheless a 50 to 60 percent differential has persisted between the high-wage and low-wage industries in the United States. Do interindustry differentials of this magnitude proceed from the very beginnings of the industrialization process? If so, how do we account for their initial development? Has the relative ranking of various industries changed over time? The existence of long-standing differentials between industries and little change in the ranking of industries would suggest that the strongest influences on wages have operated *throughout* the economy of the mid-Atlantic region and *across* industry lines rather than affecting each category differently [5, p. 197].

Questions concerning the efficient allocation of labor resources constitute only one part of the current study. Of great interest to the historian and economist alike is the question of equity. What happened to labor's share of the new nation's growing output and how was that share in turn distributed among the various categories of workers as industrialization proceeded? Partial answers to these and related questions can be obtained by the careful analysis of real wages and earnings in the mid-Atlantic region.

The conversion of money wages to real terms requires a deflator which adequately reflects changes in the cost of living. Ideally suited for this purpose is an index of retail prices, appropriately weighted to reflect the importance of each item in the consumer's budgetary pattern. Moreover, these weights should be changed or modified over time to reflect changes in consumer expenditure patterns and adjusted to reflect regional differences in consumption patterns. These are formidable requirements, to say the least, and for purposes of the present analysis we may be required to accept something far less than the ideal.

Prices are among the most readily available data in the early 19th century but were almost invariably collected at the wholesale level. This creates two distinct, but related problems. In the first place, many retail items were simply not sold at the wholesale level, necessitating the substitution of raw materials or semifinished goods for final products. Second, wholesale

prices have historically exhibited fluctuations wider than retail and have been quicker to respond to disequilibrating forces over the course of the business cycle. In the very long run, the latter problem is less troublesome barring a secular increase or decrease in retail profit margins. For this reason a cost-of-living index based on wholesale prices is more useful for comparison of long-term trends than for year-to-year variation.

Table 2

COMPARISON OF BUDGET STUDIES AND CAREY ESTIMATES
(Percentage of total expenditure)

Item	Hoover 1875 (1)	1888-91 (2)	1901 (3)	Carey (4)
Food	57.4	50.0	51.0	59.9
Fuel	7.0	8.0	6.6	6.1
Clothing	15.2	13.0	8.6	20.5
Rent	17.7	15.4	16.8	13.3

Sources: *Column 1*: National Bureau of Economic Research, Conference on Research on Income and Wealth, "Retail Prices after 1850," Vol. 24 (Princeton: Princeton University Press, 1960); *Columns 2 and 3*: US Bureau of the Census, *Historical Statistics of the United States* (Washington, 1960), pp. 180-81; *Column 4*: Mathew Carey, *Appeal to the Wealthy of the Land* (Philadelphia: L. Johnson, 1833), p. 9.

An equally important component of the index of living costs is an estimate of the relative importance of budgetary expenditure categories. As Table 2 indicates most 19th-century budget studies agree on the importance of food as a percentage of total expenditures. What is perhaps surprising, however, is the reasonably consistent values for other categories as well. The estimates utilized in our cost-of-living index were compiled by Mathew Carey of Philadelphia. The Carey study has the advantage of being the product of an astute and reliable observer of economic affairs; of reflecting the values for the mid-Atlantic region; and of falling squarely within the period under study.

Table 3 contains the index. The prices are wholesale prices for Philadelphia weighted by the Carey estimates. The rental component was obtained by applying the appropriate weight to a resi-

dential construction cost index for Philadelphia, which assumes that long-run changes in building costs will be reflected in rental prices.[2]

Table 3

REAL WAGES IN THE MID-ATLANTIC REGION

Year	Average Money Wage (1)	Cost of Living Index (1821-25=100) (2)	Real Wage (3)
1790	$ .825	92.2	$ .894
1795	1.27	142.8	.889
1800	1.32	134.7	.979
1805	1.32	138.7	.951
1810	1.36	136.2	.998
1815	1.41	178.6	.789
1820	1.29	109.5	1.178
1825	1.29	95.6	1.344
1830	1.29	86.9	1.478
1835	...	86.1	...
1840	1.20	82.8	1.443
1845	1.22	79.2	1.540
1850	1.30	80.2	1.614
1855	1.41	95.7	1.473
1860	1.49	84.4	1.789

Sources: *Column 1*: see sources of Table 1; *Column 2*: Mathew Carey, *Appeal to the Wealthy of the Land* (Philadelphia: L. Johnson, 1833), p. 9; and Anne Bezanson, Robert D. Gray, and Miriam Hussey, *Wholesale Prices in Philadelphia, 1784-1861* (Philadelphia: University of Pennsylvania Press, 1937), pp. 394-95.

The combined average of real wage rates in Table 3 showed little change between 1790-95, as nominal wages were just able to keep pace with rapidly rising prices. Rates increased by 1800 but show little net change between that date and 1810. A sharp decline in real wages accompanied wartime inflation after 1812 and an equally sharp increase followed in the wake of a drastic postwar decline in prices. The decade of the 1820s saw substantial gains in real wages which were only slightly eroded by price in-

creases and wage decreases during the late 1830s. The decade of the 1840s was a period of low and falling prices which saw real wages increase, particularly after 1845. An acceleration of prices in the early 1850s lowered real wages but the rapid decline of prices after 1857, coupled with a modest increase in nominal wages, increased real wages substantially.

The countercyclical movement of real wages is not unexpected. An increase in demand will tend to increase prices more rapidly than wages as producers combine larger quantities of labor with given capital stocks, reducing the marginal product of workers. As a corollary, profits will rise as marginal costs exceed average total costs beyond full capacity and producers enjoy quasi-rents. In the downturn prices should fall more rapidly than wages as the marginal product of workers rises. In the absence of significant monopoly power producers will experience lower profits as sales decline and excess capacity appears.

This tendency of real wages to rise in periods of falling prices does not imply prosperity for all workers, since the higher real wage rates will accrue to fewer workers if and when employment declines. Accordingly, a better measure of worker welfare is the movement of real earnings which is determined by real wage rates and the average level of voluntary and involuntary unemployment. Little, if any, aggregate data on real earnings exist for the antebellum period; however, my present research has uncovered the existence of several sets of company records which provide earnings data over relatively long spans of time. Utilizing these figures and the cost-of-living index it will be possible to compare the movements of real earnings and real wages, at least for a select group of firms in the mid-Atlantic region. This comparison may make it possible to modify the results obtained from the use of real wage data alone and construct a more accurate picture of workers' standard of living.

My present findings indicate that combined real wage rates in the mid-Atlantic region doubled between 1790-1860. Between 1800-60 these gains were equally divided between skilled and unskilled workers, a conclusion in keeping with the findings on skill differentials. The often violent, short-run movements in the real wage rate series is almost certainly an exaggerated picture of the standard of living changes which occurred. The use of retail rather than wholesale prices could reasonably be expected to moderate these variations. In addition, the cost-of-living index does not allow for substitution within the major categories of expenditure when in fact workers were free to vary their diets and other purchases to take advantage of relative price changes. This too would have a tendency to ameliorate the impact of price changes and partially explain the often sluggish behavior of nominal wage rates. Despite some serious limitations of the data it is difficult to escape the conclusion that the standard of living

of mid-Atlantic workers increased significantly during the first half-century of industrialization.

It is tempting, perhaps too tempting, to add a final word on productivity changes during this period. Data for the United States between 1860-90 indicate that the net increases in real wages and earnings of manufacturing workers are not inconsistent with increases in productivity when measured by manufacturing value added per worker in constant dollars. Real daily wages were less closely associated with real value added per worker but did correlate highly with real output per worker [7, p. 120]. "There is...no necessary relationship between short-run changes in wages and productivity, either in a given industry or in the economy as a whole." There are, however, some compelling reasons why we might expect real wages and productivity to move in tandem over the long run. Not the least of these is the simple fact that labor's share of the national income is so large "that any substantial disparity between productivity and real wages would exert a great impact on the other shares -- either largely expropriating them or presenting them with huge windfalls" [7, p. 120].

My data suggest a compound rate of increase of close to 1 percent per annum between 1790-1860; however, because of fluctuations in real wage rates, increases for subperiods are quite sensitive to the years chosen for inclusion. An admittedly "conjectural" estimate of output growth between 1790-1860 shows real per capita output increasing at a little under 1.3 percent per annum [4, p. 194]. Using the decade 1800-10 as the starting point, the growth of real wage rates over the following half-century was a little over 1.2 percent per annum. Given the margin for error which is inherent in both sets of estimates the correspondence is indeed encouraging.

To proceed further at this point on the slim statistical basis available would be risking the destruction of the already strained credibility of the findings. My preliminary results do, however, suggest that it is possible to construct a model of the early 19th-century, mid-Atlantic labor market which is consistent with the facts as well as economic theory. It is no doubt a cliché to note that this paper raises more questions than it answers, but as such it constitutes a provocative and, I believe, useful blueprint for continued research.

NOTES

1. In his study of the McCormick Company records, Robert Ozanne noted a similar failure of skill differentials to decline over time, despite considerable short-run fluctuation. See [7].

2. Rental returns as a percentage of original cost appear to be rather stable from the early 19th century on, averaging10-11 percent of original cost. See [1].

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