MOBILITY AND CHANGE IN ANTE-BELLUM PHILADELPHIA

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The measurement of the magnitude of vertical mobility is a particularly important consideration for the student of the Amercan city. For in America, more than in most other countries, this particular measure coincides with one of the central ingredients of the prevailing ideology. "This is a country of self-made men," boasted Calvin Colton in 1844, "than which nothing better could be said of any state of society."[1] More specifically:

> Money and property, we know, among us, are constantly changing hands. A man has only to work on, and wait patiently, and with industry and enterprise, he is sure to get both. The wheel of American fortune is perpetually and steadily turning, and those at the bottom today, will be moving up tomorrow, and will ere long be at the top.[2]

Colton's is certainly not a minority view of American culture, nor is it the exclusive property of pre-Civil War propagandists. Rather, it is one of our most durable and widely shared propositions, concerning not only what America is, but also what it should be. In the 1960s we know that for large numbers of individuals the American Dream is an illusion. Yet we have never surrendered the idea that the best society is a fluid society, and the characteristic response to the problems of poverty and racism, among those who admit their existence, is to restore equality of opportunity.

This paper is an attempt to study vertical mobility in a major American city, Philadelphia, during the period 1820 to 1860, when Calvin Colton and others were elevat-

ing the concept of wordly success to its eminent place in American social thought. But, sensitive both to the tentative nature of my results and to the methodological temper of this volume, I have tried to focus here not simply on substantive rates and patterns of mobility. I have sought as well to extend the relevance of this type of study to the general problems of urban historical research. The study of mobility is a complicated operation involving numerous procedures which, when viewed together, may reveal more about the city than simply the fluidity of its social structure. Further on, I shall explore the relevance of the observed mobility patterns to difficult questions of economic change in the ante-bellum city.

Technical Considerations

The study of mobility may be examined in a number of different ways. Typically, it is the study of intergenerational occupational mobility—that is, the study of the relationships between the occupations of a group of men and those of their sons. These relationships are used to infer the magnitude and pattern of social mobility in the period and place of the son's youth or adult life, depending on whether the son's original or ultimate occupation is recorded. Since social mobility is inferred, occupations are ranked or grouped according to an assumed or empirically derived prestige scale, an example of which is the well-known NORC scale.[3]

It is important to point out, however, that the validity of inferring social mobility from occupational mobility is virtually never examined. Leaving aside the question of whether the inference of social mobility from occupational mobility is valid even in contemporary research, we must recognize the inappropriateness of applying a

mid-twentieth-century prestige ranking of occupations to early nineteenth-century conditions. The economy and the occupational structure have changed too much to support such a procedure. Furthermore, the creation of an accurate ranking system based on pre-Civil War opinion is made especially difficult in light of the amorphous character of surviving historical documents.

A possible solution may emerge, however, from a simple redefinition of the problem. Although recent studies of the concept of success in America claim for it a certain amount of complexity,[4] the straightforward matter of making money has always been its most basic ingredient. In the effusive words of Calvin Colton, success is conceived of entirely in term of "money and property." Accordingly, we may reinterpret the scale of social mobility as the measurement of economic mobility. We probably lose little information in doing so, for the magnitude of one would no doubt closely resemble the magnitude of the other, and it permits us validly to base our ranking or classification of occupations on the more workable basis of the wealth or incomes of the men who worked within each occupation.[5]

Other problems inherent in the application of this method to the past are not as easily overcome. They often arise from the absence or incompleteness of appropriate data, for we must bear in mind that we are attempting to apply a method oriented toward survey research to a society that is no longer susceptible to personal interview. I have discussed these problems in another place,[6] and will return later to the question of validity.

The first step of any occupational mobility study is to define the vertical dimension of the occupational structure—to rank or classify occupations. As the above discussion implies, this was achieved through the use of

whatever data were available for determining the average wealth of the members of each occupation.[7] For the closing year of the period, 1860, manuscript federal census schedules were used to rank fifty-one occupations, from import-export merchant to boatman (see Table 1). To assure that the occupational structure was sufficiently stable thoughout the period, a similar ranking was created for 1820, on the basis of local tax records. These rankings were compared statistically, resulting in the following rank-order correlation coefficients; Spearmans r=.759, Kendall's Tau=.625.

Table 1. Rank Order of Occupations According to Mean Wealth, 1860 ("Journeymen" Excluded)

Rank	*Occupation*	*Mean Wealth*
1	Merchant	$50,357[a]
2	Attorney	34,948
3	M.D.	23,879
4	Watchmaker	20,972[b]
5	Broker	16,961
6	Manufacturer	16,910[c]
7	Druggist	12,281[d]
8	Agent	10,369
9	Saddler	9,980
10	Tanner and Currier	8,950
11	Brickmaker	8,433
12	Cabinetmaker	7,272
13	Grocer	5,767
14	Bricklayer	4,308
15	Storekeeper	4,062[e]
16	Carpenter	3,755
17	Teacher	3,746
18	Machinist	3,627
19	Tobacconist	3,512
20	Printer	3,510
21	Baker	3,507
22	Victualler (Butcher)	3,414
23	Coachmaker	3,371
24	Plasterer	3,243
25	Hatter	3,175

Rank	*Occupation*	*Mean Wealth*
26	Cooper	3,020
27	Shipwright	2,935
28	Confectioner	2,662
29	Stonecutter	2,425
30.5	Innkeeper	2,324[f]
30.5	Gardener	2,324
32	Tailor	2,317
33	Bookbinder	2,300
34	Shoemaker	2,114
35	Blacksmith	2,089
36	Painter	1,788
37	Carter	1,727
38	Tinsmith	1,625
39	Clerk	1,410
40	Stonemason	1,150
41	Salesman	546
42	Watchman	457
43	Conductor	454
44	Domestic Servant	328
45	Carpet Weaver	186
46	Laborer	180
47	Coachman	170
48	Mariner	113
49	Weaver	106
50	Ironworker	88
51	Boatman	50

Source: *Eighth Census of the United States,* microfilmed manuscript schedules, County of Philadelphia.

a. Includes only those listed as "merchant," with no further specifications. As a rule, the term "merchant," when unaccompanied by the name of a product, indicates a large-scale, general importer-exporter.

b. Includes jewelers and silversmiths.

c. Includes all manufacturers, whether or not a product is specified. The mean for unspecified manufacturers is $1 lower.

d. Excludes one extreme case, George W. Carpenter, whose wealth was listed at $2,120,000. The mean for druggists, including Carpenter, is $136,147.

e. Includes those specified simply as "storekeeper."

f. Includes innkeepers, tavern keepers, and hotelkeepers. These terms appear to be interchangeable, in spite of the fact that a few large hotels existed in Philadelphia in 1860.

These occupational rankings produced few surprises. At the top of Table 1 are the merchants, often merchant-manufacturers, followed by the professionals, manufacturers, and one group of craftsmen specializing in highly esteemed and expensive products. Lower, but still above the middle range, are several craftsmen, such as tanners and brickmakers, who are more properly considered small manufacturers, as well as such nonmanual businessmen as druggists, agents, and grocers. Storekeepers, innkeepers, and a host of craftsmen form the middle range of the rank order, with clerks and carters intermingled with the lower end of this group. Finally, the last ten ranks consist of unskilled workers, domestic servants, and weavers. Weavers in this period were not master craftsmen, but wage-earning machine operatives. Their wages were little higher than those of unskilled workers.

Missing from the rank order is an army of journeymen craftsmen. Journeymen, as wage-earning and usually propertyless individuals, would logically fall near the bottom of the rank order. Unfortunately, city directories do not include journeymen. Proprietors are regularly reported, and unskilled workers less reliably so, but journeymen craftsmen are almost invariably excluded from the Philadelphia directories because the stated purpose of the early directories was to report the names, occupations, and addresses of heads of household and those who were "in business."[8] Journeymen craftsmen represent the only adult male group that is systematically excluded by these terms.

Thus, we have arrived at a major qualification of our attempt to calculate rates of occupational mobility—namely, that we cannot directly observe the mobility experience of one of the most interesting groups in the occupational structure. We will refer later to the question

of the journeyman's opportunity. Here we must simply declare that our mobility rates will apply primarily to the city's proprietors, a much larger range of individuals than we might at first expect, and, with a great deal of hesitation, to its unskilled workers. With regard to this latter group, we will see that we have generated rates of mobility that are frankly unrealistic. This phenomenon, which might appear at first to be a striking affirmation of the American Dream, is actually a product of incomplete directories. The directories were likely to include only those unskilled workers who were upwardly mobile.

A second important limitation concerns the type of mobility that proved accessible for study. We have mentioned thus far only the method of intergenerational mobility, the study of occupational change from father to son. Equally important, however, is the study of intragenerational mobility, the study of the occupational history of individual men. In this Philadelphia study both kinds of mobility measures were made; the intragenerational measure provided the more fruitful results.

Intragenerational mobility of course introduces problems of its own. The tracing of an individual career requires not two but many observations in the sequential editions of the Philadelphia city directory. With each attempted observation there arises the possibility of loss of trace due to death, out-migration, incomplete data, or the spiritual debilitation of the researcher. To minimize these pitfalls, the tracing process in this study was restricted to a single decade for each of four separate samples drawn from the city directories of 1820, 1830, 1840, and 1850. A sample of names drawn from the 1820 directory was traced to the 1830 directory. An entirely new sample was drawn from the 1830 directory and traced through 1840, and so on until four decades of observations

were available. No attempt was made to exclude individuals from more than one sample, since the samples are sequential, and such an exclusion would have interfered with the comparability of their "age mix."

What follows, then, is a series of matrices measuring the intragenerational occupational mobility of a particular (but rather extensive) subset of the adult male working population of ante-bellum Philadelphia. It should be noted that these matrices apply not to individual careers in their entirety, but to the magnitude of mobility observed within a given decade. It is the decades that are being measured and compared.

Thus far I have emphasized the factors shaping the study of socioeconomic mobility. The city directories include material on the residential addresses as well as the occupations of the men listed. This means that a second variable, residence, can be used to illuminate further the nature of mobility in the ante-bellum city. We will consider this point in due course.

Occupational Patterns

Table 2 presents the occupational mobility matrix for the first decade, the 1820s. The fact that it is a five by five matrix requires some explanation, for we have thus far spoken only of a ranking of a large number of individual occupations. To make a mobility matrix serviceable, it was necessary to collapse the rank order to a limited number of categories. In order to retain as much descriptive power as possible, however, and to avoid the influence of an artificial classification scheme, occupations were coded both to retain their individual identities and to produce a number of alternative classification schema. Thus, matrices were produced to reflect five oc-

Table 2. Occupational Mobility, 1820-30

1830 Occupational Category	*1820 Occupational Category*						
	1	*2*	*3*	*4*	*5*	*Total*	*% of Sample*
1	160 (88.9%)	15 (7.5%)	9 (2.0%)	2 (4.3%)	–	186	19.6
2	8 (4.4%)	160 (80.0%)	26 (5.8%)	5 (10.9%)	3 (4.1%)	202	21.3
3	9 (5.0%)	19 (9.5%)	408 (90.5%)	3 (6.5%)	13 (17.8%)	452	47.6
4	3 (1.7%)	2 (1.0%)	2 (.4%)	35 (76.1%)	1 (1.4%)	43	4.5
5	–	4 (2.0%)	6 (1.3%)	1 (2.2%)	56 (76.7%)	67	7.0
Total	180 (100.0%)	200 (100.0%)	451 (100.0%)	46 (100.0%)	73 (100.0%)	950	100.0
% of Sample	19.0	21.0	47.5	4.8	7.7		

cupational categories, two different sets of four categories, three categories, and the "functional" categories of "nonmanual proprietors," "manual proprietors," "nonmanual employees" and "manual employees." Each of these schema produced results consistent with the others. Accordingly, it was decided to present the results in the form of the most descriptive interpretation of the occupational rank order, the five by five matrix. The first category, the highest, consists mainly of merchants, professionals, and manufacturers, were merchants comprising over half of the category in each sample. In terms of Table 1, it represents those occupations with a mean of wealth of $16,000 or higher. The second category, representing the range in means of approximately $5,000 to $12,000, consists mainly of druggists, grocers, agents, and high-ranking craftsmen. The third category is best described as "craftsmen," although it also includes tavern keepers, minor public officials, dealers, tobacconists, and most teachers. In terms of the rank order it is the "middle class," with means ranging from approximately $1,500 to $4,000. The fourth category represents something of a departure from Table 1, as its few occupations—carter, clerk, accountant, and salesman—are pieced together out of the lower range of the middle category. The final category, representing occupational means under $500, are mostly semiskilled and unskilled laborers and domestic servants.

The most striking feature of Table 2 is the magnitude of upward mobility from the fourth and fifth categories, 21.7% and 23.3% respectively. Of course, we have already seen that abnormally high rates from these categories were to be expected, and that these rates reflect, to a large degree, the incompleteness of the directories rather than the actual mobility of manual and nonmanual

workers. Upward mobility from the other categories is quite a bit lower, with 7.5% of the second category and 7.8% of the third category moving into higher categories by 1830.

More interesting, perhaps, than these purely quantitative expressions are the specific patterns of occupational change that Table 2 does not reveal. With regard to upward mobility, the most prominent pattern is the tendency for change to occur within situs, that is, between closely related occupations. For example, of the fifteen members of the second category who were upwardly mobile, all but one had become merchants by 1830. Seven of these fifteen had been storekeepers, three were grocers, and the others were sea captains, auctioneers, and agents. Not one had been a craftsman in 1820. Six craftsmen from the third category did move into the first by 1830, but the pattern is not destroyed. Two of the six became manufacturers of products closely related to their skills, and, interestingly, three became high-ranking government officials, a term that applies here to such positions as judge, alderman, and mayor. (As only two members of the 1820 sample were high-ranking public officials in 1820, these three cases hint that politics may have been an important avenue of mobility.)

The pattern of movement between related occupations is preserved in the largest cell of upward mobility, that which represents movement from the third to the second category. Of the twenty-six changes, twenty-two involved closely related occupations. Thus of five men who became retail clothiers, four had been tailors.[9] Both of those who became shoe retailers had been shoemakers. Of the six who became grocers, three had been innkeepers, one was a baker, and one was a butcher. Four cabinetmakers had all come from lower-ranked woodworking crafts. The

editor had been a teacher. The pattern is retained even in the badly distorted bottom categories, with "white-collar" employees becoming merchants, storekeepers, and bank cashiers, and manual workers moving into higher manual positions.

Downward mobility presents a somewhat different pattern. Although the rather large movement from the first category (11.1%) presents almost a mirror image of movement into that category, the 12.5% downward mobility from the second category does not tend to occur between related occupations. Rather, there are two occupations, tavern keeper and minor public officer, neither of which required much investment or skill, that seem to have served as recourse for those who either failed at, or perhaps simply retired from higher-ranked occupations. Just under half of all those who were downwardly mobile into the third category became tavern keepers or officials, and yet these two occupations together accounted for only 5% of the third category in 1820.

In both its magnitude and its underlying pattern, then, occupational mobility in Philadelphia in the 1820s suggests a rather stable economic and social order. In subsequent decades this stability appears to break down. Space does not permit a detailed discussion of each of the matrices, but we can at least note that Table 3 and Table 4, representing the 1830s and 1840s respectively, depart from the patterns of Table 2. Specifically, the pattern of movement within situs is considerably weakened. In the most important cell in Table 2, representing mobility from the third to the second category, 85% of the cases moved into closely related occupations. In the 1830s this figure is reduced to 56%, and in the matrix representing the 1840s it is 37%. In the 1820s, as we have seen, none of the high-ranking craftsmen of the second category had

Table 3. Occupational Mobility, 1830-40

1840 Occupational Category	*1830 Occupational Category*						
	1	*2*	*3*	*4*	*5*	*Total*	*% of Sample*
1	192 (94.0%)	28 (12.3%)	29 (5.6%)	10 (20.8%)	7 (7.5%)	266	24.4
2	5 (2.5%)	162 (71.4%)	25 (4.8%)	2 (4.2%)	6 (6.5%)	200	18.3
3	4 (2.0%)	31 (13.7%)	452 (87.1%)	7 (14.6%)	14 (15.1%)	508	46.6
4	1 (.5%)	4 (1.8%)	6 (1.2%)	22 (45.8%)	5 (5.4%)	38	3.5
5	2 (1.0%)	2 (.9%)	7 (1.3%)	7 (14.6%)	61 (65.5%)	79	7.2
Total	204 (100.0%)	227 (100.1%)	519 (100.0%)	48 (100.0%)	93 (100.0%)	1091	100.0
% of Sample	18.7	20.8	47.6	4.4	8.5		

Table 4. Occupational Mobility, 1840-50

1850 Occupational Category		*1840 Occupational Category*							
		1	*2*	*3*	*4*	*5*	*Total*	*% of Sample*
	1	337 (92.1%)	10 (3.7%)	29 (3.3%)	10 (12.3%)	7 (3.1%)	393	21.4
	2	10 (2.7%)	228 (84.4%)	33 (3.7%)	4 (4.9%)	18 (8.0%)	293	16.0
	3	8 (2.2%)	21 (7.8%)	785 (88.0%)	8 (9.9%)	38 (16.8%)	860	46.9
	4	2 (.5%)	5 (1.9%)	5 (.6%)	47 (58.0%)	4 (1.8%)	63	3.4
	5	9 (2.5%)	6 (2.2%)	40 (4.5%)	12 (14.8%)	159 (70.4%)	226	12.3
	Total	366 (100.0%)	270 (100.0%)	892 (100.1%)	81 (100.0%)	226 (100.1%)	1835	100.0
	% of Sample	20.0	14.7	48.6	4.4	12.3		

moved into the "white-collar" occupations of the first. In the 1830s, these craftsmen comprised one-third of the upward mobility from the second category, and in the 1840s they constituted 60%.

Downward mobility reveals a similar change. The tendency for the downwardly mobile to become tavern keepers and public officials is overshadowed in the 1830s by an increase in the number who are downwardly mobile into low-ranking crafts and other manual positions. By the 1840s, even the downward mobility of merchants is affected. In the 1820 sample, fourteen merchants were downwardly mobile, all to other "white-collar" occupations. But in the 1840 sample, fifteen of twenty-three downwardly mobile merchants had assumed manual positions, seven as craftsmen and eight as laborers!

These and numerous other examples seem to indicate a fundamental change in the pattern of occupational mobility in the two decades following 1830. Occupational mobility seems to have lost the orderliness that prevailed in the 1820s. In that decade, mobility was largely a "white-collar" phenomenon, a reshuffling of merchants, grocers, and clerks. Those craftsmen who did advance tended to remain within the general area in which they were trained, usually to become retail merchants of goods they formerly made themselves, or perhaps larger-scale manufacturers of these goods. In the 1830s and 1840s, however, craftsmen comprised a larger and larger proportion of those who were both upwardly and downwardly mobile, and began moving into trades quite different from their own. Merchants and storekeepers, for their part, also began moving into unexpected fields. All of this seems to imply that some kind of basic change in the urban economy may have occurred in the period following 1830. We are not lacking in theories that tend to support this

proposition, most notably the "merchant capitalism" theory of John R. Commons.[10] But this is a question to which we must return later. Perhaps it will be interesting to note, however, that in the 1830s downward mobility from the fourth category increased from 2.2% to 14.6%. The latter figure consists of seven cases, all of whom had been carters. It was in this decade that the streetcar and the railroad first appeared on the streets of Philadelphia.

Strangely, mobility in the 1850s, represented by Table 5, seems to have reverted somewhat to the pattern of the 1820s. Fewer craftsmen participated in occupational change, and larger numbers of them restricted their movements to related trades. Mobility from low-ranking to high-ranking crafts still shows a strong tendency toward unrelated areas, but of eleven changes from craftsmen to shopkeepers, ten were within situs. Approximately 46% of the changes from the third to the second category involved closely related occupations, which is a moderate reversal from the rapid downward trend of this percentage in the previous decades.

Thus far, I have discussed only the underlying patterns of mobility that do not appear in the matrices themselves. But what of the overall trend in the magnitude of mobility, as measured in the preceding tables? For the sake of simplicity, Table 6 summarizes all four mobility matrices, and is itself summarized on the bottom row, which presents an average upward and downward mobility rate for each decade. Average upward mobility, according to Table 6, follows no stable progression, but rather rises and falls with each decade. Its range lies between 10% and 15% for each decade, although we have already seen that this average is inflated by the artificially high percentages of the bottom two categories. Downward mobility, on the other hand, increases in magnitude each dec-

Table 5. Occupational Mobility, 1850-60

1860 Occupational Category		*1850 Occupational Category*						*% of Sample*
		1	*2*	*3*	*4*	*5*	*Total*	
	1	181 (90.0%)	13 (8.9%)	17 (3.2%)	9 (20.5%)	4 (2.3%)	224	20.6
	2	7 (3.5%)	109 (74.7%)	28 (5.3%)	4 (9.1%)	9 (5.2%)	157	14.4
	3	6 (3.0%)	12 (8.2%)	439 (83.8%)	2 (4.5%)	31 (17.9%)	490	45.1
	4	7 (3.5%)	4 (2.7%)	13 (2.5%)	25 (56.8%)	8 (4.6%)	57	5.2
	5	—	8 (5.5%)	27 (5.2%)	4 (9.1%)	121 (69.9%)	160	14.7
	Total	201 (100.0%)	146 (100.0%)	524 (100.0%)	44 (100.0%)	173 (99.9%)	1088	100.0
	% of Sample	18.5	13.4	48.2	4.0	15.9		

Table 6. Summary of Occupational Mobility, 1820-60, in Five Occupational Categories Expressed as Percentages

Occupational Category	Upward Mobility				Downward Mobility			
	1820-30	*1830-40*	*1840-50*	*1850-60*	*1820-30*	*1830-40*	*1840-50*	*1850-60*
1	—	—	—	—	11.1	6.0	7.9	10.0
2	7.5	12.3	3.7	8.9	12.5	16.4	11.9	16.4
3	7.8	10.4	7.0	8.5	1.7	2.5	5.1	7.7
4	21.7	39.6	27.1	34.1	2.2	14.6	14.8	9.1
5	23.3	34.5	29.6	30.1	—	—	—	—
Average Mobility	10.0	15.0	11.0	14.1	6.2	6.9	7.3	9.6

ade. Actually, the progression is not consistent within each category, but seems to derive from the steady and rather large increase from the third category. This is by far the largest group in each sample, and includes most of the master craftsmen. It may be of some importance to note that downward mobility from this category increased from an unimportant 1.7% in the 1820s to 7.7% in the 1850s. At the same time, upward mobility from the middle category remained essentially constant. By the final decade the upward and downward mobility experiences of this critical group were about equal in magnitude.

In purely quantitive terms, then, upward occupational mobility appears to have been fairly stable in the four decades immediately preceding the Civil War, whereas downward mobility seems to have gradually increased. This overall pattern holds true whether occupational classifications are derived from our empirical rank order, or whether they are defined functionally, as in Table 7. Must we conclude, then, that the American city failed to generate increasing opportunities for economic advancement in the age of the "self-made man"? Not necessarily. Such a conclusion assumes the validity of inferring economic mobility from occupational mobility, and, as we have seen, this inference may well be invalid. The only statistical procedure that could be brought to bear on this problem in the present study was an indirect one, the analysis of variance relating the static variables of occupation and wealth. Its results are inconclusive. Specifically, occupation (regardless of how that term is defined) accounts for approximately one-sixth of the variation in the wealth of the members of the sample drawn from the 1860 census schedules.

Such a relationship does not appear to justify the inference of economic mobility from occupational mobility.

Table 7. Summary of Occupational Mobility, 1820-60, in Functional Categories, Expressed as Percentages

Occupational Category	Upward Mobility				Downward Mobility			
	1820-30	*1830-40*	*1840-50*	*1850-60*	*1820-30*	*1830-40*	*1840-50*	*1850-60*
Nonmanual								
Proprietors	—	—	—	—	8.4	10.5	11.5	11.0
Craftsmen	5.4	10.4	7.2	9.2	2.6	3.5	4.5	7.2
Clerks, etc.	25.0	37.8	30.0	26.4	—	—	3.7	5.7
Unskilled								
Workers	21.7	32.1	28.1	28.3	—	—	—	—
Average								
Mobility	9.1	15.3	12.8	14.9	4.6	6.2	7.1	8.6

Neither does it necessarily invalidate it. What it does suggest is that economic mobility, like social mobility, is a complex phenomenon that is best approached through complex, rather than unidimensional procedures. It is precisely this consideration that leads us to consider a second variable for observing mobility. Perhaps it will prove to be a more valid index of economic mobility. Perhaps it can be combined with occupational mobility to provide a better inference than either variable acting alone.

Residential Mobility

That residence should be that second variable was dictated by the format of the city directories. It is a variable that we would probably have turned to in any event, for residence is a workhorse in the literature of stratification. W. Lloyd Warner's famous (and, admittedly, controversial) Index of Status Characteristics, for example, consists of four variables: occupation, source of income, and two variations of the concept of residence, house type and dwelling area.[11] This, of course, does not mean that we should not be just as skeptical of residence as we were of occupation, and we will subject it to the same examination. It does indicate, however, that we have expanded our methodology in a very important direction.

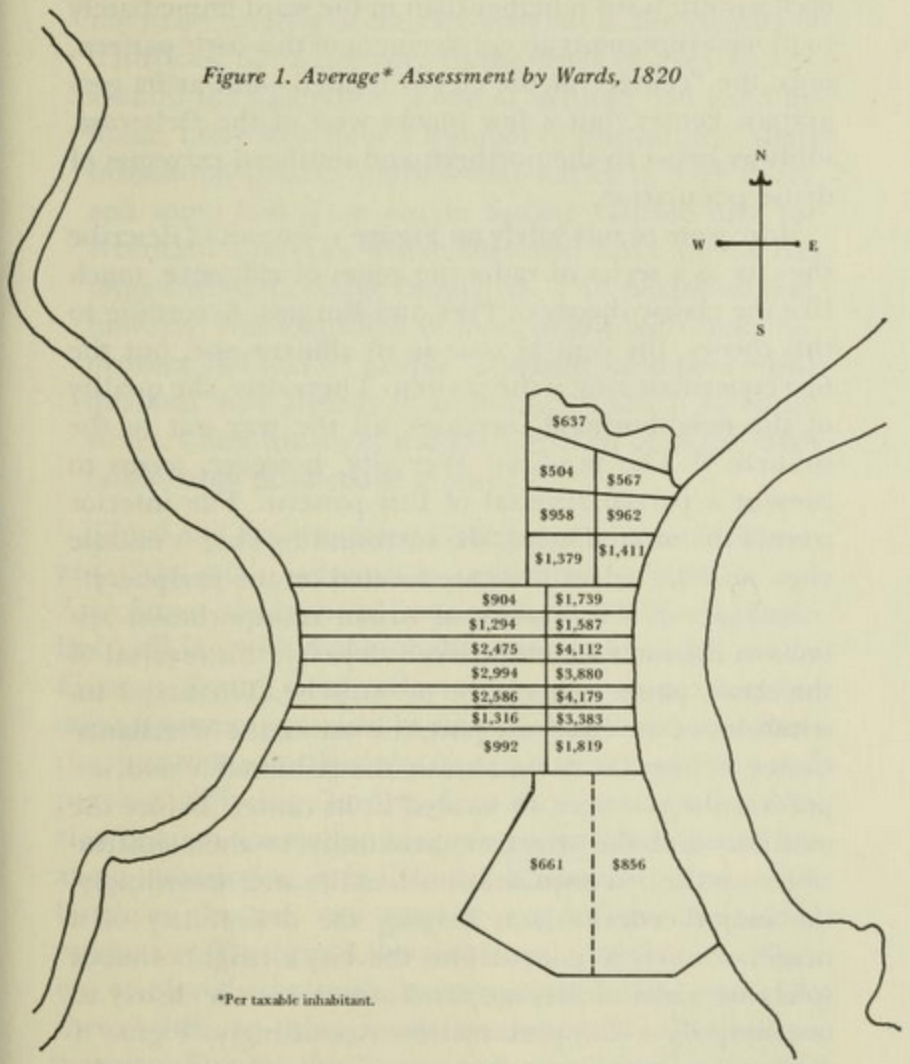
Since our information extends only to the address of each sample member, "residence" will refer not to the type, size, or value of each house but to its location. Before this concept acquires meaning, therefore, we must discover some means of differentiating one location from another. That is, we must define the neighborhoods of the city, just as we prepared our ranking of occupations. In the present study this was achieved through two methods.

First, local tax records were used to define "neighborhoods" in strictly quantitative terms. A preliminary scanning of the tax register indicated that neighborhoods did in fact exist (that houses in a given area of the city had very similar assessments), and that these neighborhoods were much larger than the city's political wards. This means that a Philadelphia ward map, containing average residential assessments within each ward, can be used as a fairly reliable guide to the boundaries of the city's neighborhoods.

Figure 1 presents just such a map, based on the wards and tax records of 1820. The area presented is not merely the City of Philadelphia (the rectangle of fourteen wards stretching between the Delaware and Schuylkill rivers), but also includes those semiautonomous districts ("liberties") that had grown up along the Delaware long before the city itself filled up from river to river. In 1820, population was of urban density throughout each of the eastern city wards and throughout the adjoining districts, but tapered sharply in the western portions of the long wards to the west of 4th Street. Thus, Philadelphia in 1820 was a city of approximately 120,000 inhabitants, extending some three miles along the Delaware River, with a maximum width of about a mile.[12] In its northern and southern extensions, the distance from the edge of the city to the river was perhaps no more than a half-mile.

The average assessments in Figure 1 reveal a very interesting pattern. Specifically, there is a direct and very pronounced relationship between high average assessment and centrality. The highest averages are in the heart of the city, in four wards comprising a small square of perhaps one quarter of a square mile. Immediately to the west of this square are wards with somewhat lower averages, and immediately north and south of it are wards

Figure 1. Average Assessment by Wards, 1820*



with averages that are appreciably lower. These averages, in turn, are significantly higher than those on the perimeter of the city. The fact that the average assessment in each eastern ward is higher than in the ward immediately to its west represents an enlargement of this basic pattern, once the "center" of the city is located—not at its geographic center, but a few blocks west of the Delaware, midway between the northern and southern extremes of dense population.

If we were to rely solely on Figure 1, we would describe the city as a series of radiating zones of affluence, much like the classic theory of Park and Burgess. According to this theory, the central zone is an affluent one, but the first concentric ring is the poorest. Thereafter, the quality of the neighborhood increases, all the way out to the suburbs.[13] The pre-Civil War city, however, seems to present a partial reversal of this pattern. The interior zone is the most affluent, the surrounding ring is middle class, and the urban poor are located on the periphery.

In light of the absence of urban transportation systems in the early nineteenth-century city, this reversal of the classic pattern should be no surprise. The major institutions of the city—the port, the banks, the Merchants' Coffee House, the State House, the fashionable and important shops—were all located in its center. Before the omnibus and the streetcar, proximity to these institutions was the first requisite of urban life and, accordingly, the major criterion for judging the desirability of a neighborhood. Yet, to define the city's neighborhoods solely in terms of average ward assessments is clearly to oversimplify a complex matter. Accordingly, Figure 1 (and subsequent maps that were prepared for each decade) was examined in the light of qualitative data, usually in the form of descriptions of the city. Interestingly, the

results of these two basic methods coincide quite closely. The following, for example, is from a description of Philadelphia in 1820 by its greatest historian:

> the smart quarter of the city was that in the vicinity of Third and Spruce streets. In the circle of a few blocks, around the spot where Thomas Willing had fixed his home, there were now a number of fine houses. Many substantial Quaker families were settled in Arch street, and some had gone out to Spring Garden and the Northern Liberties where they had built themselves large and comfortable residences. This neighborhood, however, was identified in most minds with butchers, drovers, and market people. The negro and poor white quarters were already in and south of Cedar or South street. Chestnut street was early spoken of as the city's fashionable promenade ground.[14]

Third and Spruce streets ("the smart quarter"), Chestnut ("the city's fashionable promenade ground"), and Arch Street (the home of "many substantial Quaker families") all lay within the small, inner zone as defined by Figure 1. Spring Garden does not appear on our map because it was not yet taxed by the city, but Northern Liberties, just to the north of the city's political boundary and just east of Spring Garden, does. It is largely a "middle class" region, except for its northern extremes, and in the above description it is "identified in most minds with butchers, drovers, and market people." As the public markets of Northern Liberties were located in its southern wards, Oberholtzer's description obviously applies to these wards; in other words, to those with middle-class averages. Finally, the "negro and poor white quarters," south of Cedar Street, are the low-average wards at the bottom of Figure 1. Indeed, only one item in Oberholt-

zer's description fails to coincide with Figure 1. The "comfortable residences" of Northern Liberties and Spring Garden seem to intrude on our middle-class neighborhood. Actually, subsequent maps indicate that this was merely the advance guard of a northward expansion of the wealthy community.

Thus, it is with some confidence that we have identified three areas, or zones, of Philadelphia, each associated with a particular level of residential life. These zones were defined for 1820 by Figure 1, and then adjusted slightly on the basis of descriptive data. This procedure was repeated for each decade, retaining the three-zone system but changing its boundaries to reflect the growth and history of the city. Within this system, each member of the four directory samples was traced from residence to residence, just as he was traced from occupation to occupation.

Relations between Occupational and Residential Mobility

Table 8 summarizes the residential mobility of each sample. Interestingly, its results are strikingly similar to the overall pattern of occupational mobility in both magnitude and trend. Average upward mobility remained stable for each group through the first three decades, and decreased somewhat during the fourth. Actually, this decline probably reflects an error of judgment in defining the zonal boundaries of 1860. Relative to the previous decades, the proportion of the final sample in the outer zone was quite large, indicating that the inner zones should perhaps have been expanded more than they were. If this had been done, the decline in upward residential mobility would probably have been erased, and

Table 8. Summary of Residential Mobility, 1820-60, Expressed as Percentages

	Upward (Converging) Mobility				*Downward (Radiating) Mobility*			
	1820-30	*1830-40*	*1840-50*	*1850-60*	*1820-30*	*1830-40*	*1840-50*	*1850-60*
Zone 1								
To Zone 2					14.3	19.0	19.4	24.1
To Zone 3					4.2	9.2	9.7	11.8
Total					18.5	28.2	29.1	35.9
Zone 2								
To Zone 3					10.3	14.4	21.7	28.3
Average Downward Mobility					14.2	21.4	24.7	31.8
Zone 2								
To Zone 1	11.0	11.3	11.1	9.6				
Zone 3								
To Zone 2	12.4	11.0	12.3	7.8				
To Zone 1	3.7	5.5	3.2	3.8				
Total	16.1	16.5	15.5	11.6				
Average Upward Mobility	13.7	13.9	13.4	10.9				