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SOCIAL MOBILITY AND ECONOMIC ADVANCEMENT

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During the past decade or more, studies of social mobility by sociologists have tended to postulate the vertical movement of individuals among fixed strata of power, prestige, or consumption. Meanwhile studies by economists of the distribution of wealth and income have tended to conceive of the flows of reward within a given, functioning whole, a system in continuous equilibrium. Abetted by distinctive vocabularies, the two disciplines have largely pursued independent though parallel paths through this part of the wilderness of human behavior.

Since World War II, however, the emphasis of public and professional attention has been shifting toward the current-historical process of social and economic development. As a consequence of this practical and theoretical reorientation, scholars in sociology and economics have found their interests converging at various points. Interdisciplinary studies of labor markets, consumer behavior, and—as on the present occasion—values and population dynamics have encouraged the sharing and sharpening of certain concepts, and clarification and elaboration of the developmental model of change. No area is more pressing in its demand for further threshing out of common empirical and theoretical problems than that denoted from our two perspectives as social mobility and economic advancement. We are grateful for this opportunity to set forth before economists certain implications of modern stratification theory for economic analysis. We do this in the form of five positive propositions, defended with evidence and argument derived from interdisciplinary efforts to date, but we are frankly more concerned to propose lines of collaboration with economists in the near future than to claim satisfaction with the recent past.

I

Analysis of Colin Clark's Miscellaneous Category of Tertiary Industries Leads to a Significant Distinction Among Quaternary and

¹ Deceased.

Quinary Industries. No single recent work in economics engages the sociologist interested in changes in stratification quite as much as Mr. Clark's *Conditions of Economic Progress*. To us it appears fundamental. Some economist friends whisper to us that Clark is not really a theorist, but his major thesis on the connection of rises in real income with the flow of labor into tertiary industries constitutes at least the pedestal of a systematic basis for predicting the sequences of development. It can readily and usefully be elaborated for such a purpose if his third category is broken down into three distinct categories of service industries.

The first of these we shall again call tertiary industries, defined as domestic and quasi-domestic services: restaurants and hotels, barber and beauty shops, laundry and dry cleaning, repairing and maintenance, and the sprinkling of handicrafts, once performed at home, which Clark lumps with "small scale manufactures." These may still appear a miscellany, even allowing for marginal cases, but if the principle of tracing them to the home is followed, they can be quite inclusively identified.

Next, under the caption of quaternary industries we shall group transport, commerce, communication, finance, and administration. The principle governing this grouping is that these are the industries which facilitate or effectuate the division of labor. Their office is to knit together in a working system the specialized producers of raw materials, manufactured goods, and other services. The enlargements of productivity added to any economic unit by each increment of coordinate specialization have gratified economists from Adam Smith to Clark himself, though popular opinion still suspects these industries of being nonproductive. Henry Ford used to fire clerical workers in droves on this account, only to hire them and more back again within a few weeks.

Logically and empirically, quinary industries as we shall define them are not once more a residual category. These industries comprise medical care, education, research, and recreation (including the arts). The principle which guides this grouping is that they all have to do with the refinement and extension of human capacities. They differ from the domestic and quasi-domestic tertiary industries in that they are not devoted simply to the maintenance of individuals in the style to which they are accustomed but to the cultivation of behavior to which they are not accustomed. It might almost be said that in the sequence of social and economic development, their office has emerged as that of engendering social and economic development itself. The product of their operation is to feed back into the working of the previous four kinds of industry new increments of ability, skill, and knowledge—just as each of the other kinds contributes to the efficiency and output of its historical progenitors.

When its components are examined, elaboration within the quinary grouping can be observed going on at an astonishing rate. As Mr. Truman declared last November, the already burgeoning expenditure on hospitals, medical care, and research is only the prelude to a vast American investment in human resources. And Mr. Slichter ventures that the next wave of industrial activity to succeed rearmament will be a program of school-building big enough to sustain full employment. Scanning the world scene, Clark mentions sport and entertainment only in passing, but recreational industries in the United States must now account for a several times bigger chunk of our national product than does education. He does not mention research at all, even in his second edition, perhaps because even by 1951 official statistics had not registered its astronomical growth as an industry.

Now there is an old doctrine among sociologists upon which Clark's findings have cast mounting suspicion. That is the dogma that social stratification is the inevitable consequence of functional differentiation. According to this view, as the division of labor progresses, the need for co-ordination thrusts the various co-ordinators continually upward in a hierarchy of status and reward; primitive societies can be relatively equalitarian, but heightened stratification is the price of economic advancement. A popular corollary identifies the rate of economic advancement with the rate of social mobility: in ascending to higher levels of the system, enterprising individuals contribute to the efficiency of its operation; thus from the policy standpoint, economic progress is encouraged by keeping channels open for vertical movement. A final corollary is said to follow: flattening the range of possible vertical movement depresses the motivation to rise and heightening the range stimulates it. The evidence against these doctrines is impressive.

First of all, mass production of the sort implied by extreme division of labor depends upon the existence of a mass market, and the existence of a mass market depends upon the "massification" of taste. If consumers would accept the same standardization in homes which they accept in automobiles, inefficiencies in building and costs of housing would not be so deplorable. Comparison of the men's and women's clothing industries furnishes another illuminating example of consumer limitations upon productivity. The disintegration of sumptuary standards, especially under the impact of mass communication media, receives much attention from contemporary students of stratification. Its relationship with economic advancement is circular: because it is beneath the dignity of no one to eat Campbell's Soup, everyone can afford it.

In recent years the range of income distribution has been pulled in at one end through subsidization of consumption and the establishment

of minima; at the other through progressive taxation, accompanied by direct standardization of wage and salary brackets. Does it matter if these trends are regarded as causes or effects of rising real income, as long as it can be determined that they are connected? Defense expenditures, especially on soldier pay and pensions, appear to support these trends. Clark's data show that "the same amount of income comparatively equally distributed will create a greater relative demand for manufacture than if it is unequally distributed" (page 355, *Conditions of Economic Progress*, second edition), and the same obviously goes for college educations as for automobiles. Social demand for greater equality may thus lead to economic demand which may in turn make it possible to develop the productivity which makes possible the degree of equality, as Clark says, that perhaps only an advanced society can afford. Thus in judging social values, we may as a society be on the verge of discovering that general economic advancement and social equalitarianism are interdependent, while retention of steep stratification and rivalrous personal mobility is economically stultifying. Scientifically, verification of such a hypothesis would precipitate us into deep reconsideration of the problem of values and motives. Fortunately, we can report that modern stratification theory is no longer ducking this issue as much as when attention was centered on the structure of small communities.

Although our interest is primarily in the latest trends of industrialization in the United States, important implications for economic development of backward areas emerge from this latter-day slant on social mobility and economic advancement as values and motives. It is more than conceivable that backward areas will make their most rapid gains less by the recapitulation of nineteenth-century entrepreneurship and more through public investment in quaternary and quinary industries. Maybe, indeed, the robber barons who took from the public treasury to build the railroads were doing exactly this.

II

Occupations in All Industries Show a Trend Toward Professionalization. Clark rightly distinguishes industry, occupation, and social category and deals primarily with the first. Just as over time there is a flow of labor from the primary and secondary industries into the more advanced, there is a progressive net movement from the unskilled manual occupations into the educated ranks of the professions, even within older industries. These trends, though independent, are correlated. The primary industries—farming, forestry, fishing, mining—still mainly employ manual workers of limited training; the majority of employees in quinary industries are professionals. Moreover, inter-

vening kinds of industry employ crudely corresponding proportions, judging from the gross classifications of existing data. We await with extreme interest the publication of results from the current study of labor mobility by the Labor Market Research Committee of the Social Science Research Council. Sociologists and economists need to join in getting better classifications worked into the 1960 census of occupations than will appear in the 1950 one when it finally comes out.

Various available sources testify both to transfers of labor among occupations and to transformation of jobs within types of occupations:

1. Agricultural employments (also mining, fishing, forestry) show steep decline as a percentage of the total gainfully employed population of the United States. Among those remaining, steady increments of specialization and technology are slowly carrying the nature of the work in the direction of a profession practiced in terms of scientific theory rather than empirical skills. This trend is induced primarily by the extension services and the state colleges and experiment stations.

2. Manufacturing occupations have held a slightly diminishing proportion of the gainfully employed for two and perhaps as many as three decades. This trend would appear much more marked if census figures took account of the net displacement of lower skills by automatic machinery, and of higher skills by engineers. In fact, more precise analysis of the transformation of manufacturing jobs would probably show quite spectacular changes, especially in the mechanical industries.

3. While domestic servants have declined in importance, especially under the impact of equalization of incomes, employment in quasi-domestic service seems more or less to counterbalance this trend. Thus the occupational change here is dramatic but almost wholly qualitative—visible in higher wages, greater specialization, mechanization, improved techniques, unionization, and enhanced social status of workers in the personal service trades. The chefs and so-called “building engineers” in this hotel, for example, probably enjoy a better standard of living than most of this audience and may be better able to send their children to college. (Chicago, by the way, has 1,300 hotels.)

4. The clerical, fiscal, and administrative jobs which predominate in quaternary industries have expanded vastly in numbers and proportion in recent decades. If anything, the figures show them reaching right now the steepest part of their upward curve of ascent. Nevertheless, signs also suggest that they are very close to the crest of their development and may even within this decade start downward, proportionally speaking. Invention and adoption of business machinery for handling routine clerical operations will be the most responsible factor. Even without unionization, incomes of white-collar workers have trailed

those of manual workers so closely that employers are powerfully induced to substitute such machinery wherever feasible. Secondly, the development of packaging and self-service schemes, as in supermarkets, is depressing employment rapidly in retail selling—the largest single category of distribution employees. Rationalization and mechanization also affect transportation and materials handling. Efficiencies in organizing the flow of goods so strongly counter the growth of trucking and aviation that transport as a whole had probably reached the peak of its share of employment by 1940. This should be disclosed when the new census of occupations comes out. It is somewhat ironic that employment is also being reduced by the division of labor in those industries which effectuate the division of labor in other industries. Even supervisory jobs can be analyzed and distributed among staff specialists, as the disintegration of foremanship has already shown.

5. Finally, though professions do not yet show as great relative increase as the clerical trades, their upward curve is steepening. As jobs in primary and secondary industries are converted into one kind or another of engineering, engineers will overtake teachers, now the largest category of professionals; but, barring catastrophes, we may expect the scientists and artists in the research and recreation industries to come close behind.

The professionals paid by fee will become more insignificant in the total than they are already. A thoughtful business leader, Colonel Robert Wood Johnson, who manufactures medical supplies, claimed recently that since more than half the working force is already salaried, both political parties are out of tune with the times. The full social significance of this rapid transition from a wage-earning to a salaried population can hardly be appreciated, much less anticipated. A few obvious implications stand out: incomes tend to stabilize and equalize as salaries predominate; though high in status relative to other occupations, the salaried professions are socially near equals. The many facets of professionalization significant for economic analysis cannot be sketched here, but one more must be mentioned, because it goes so far toward controverting the claim that division of labor inevitably heightens stratification: a major distinction of professional from other types of employment is that, even though part of a large organization, professionals work with minimal supervision; co-ordination of their activities is accomplished primarily by well-understood procedures of departmentalization, scheduling, budgeting, and reporting.

The concept of occupational mobility which has guided a number of recent sociological studies of stratification refers to some sense of social rank or prestige—a dimension of higher or lower in esteem and desirability. Before venturing our next proposition, which links in-

dustry and occupation to social categories in that sense, one critical comment seems in order regarding those studies. Many of them possess a deficiency to correct which may require the collaboration of both sociologists and economists interested in stratification. That is the poverty of precise concepts and measures for analyzing net vertical mobility among particular segments of a society. Social mobility—unlike “labor mobility,” which it may underlie—is an invidious conception; it implies place relative to others. If everyone moves upward by some absolute standard, none moves by the invidious standard. It should thus be clear that social mobility and economic advancement occur independently. Nevertheless, many studies of social mobility arrive at their conclusions simply by comparing the occupations of sons with the occupations of their fathers without subtracting the influence of the flow of labor into the more advanced occupations. Consider simply changes of occupation during the career of a single individual: the effect of general economic advancement, whether measured by occupational development or real income, must be subtracted from his total movement to ascertain whether he has risen at all in the social scale. Otherwise there is only lateral labor mobility and real economic advancement, and our notions of social mobility and stratification are meaningless. Common-sense impressions of the frequency and degree of social mobility grossly overestimate it.

Complicating the same problem of precise definition and measurement is the matter of absolute steepness or flatness of social and economic hierarchies. Economists have a measure like the Pareto coefficient to express the general inequality of incomes in a single index. Sociologists as yet have no way to express the corresponding steepness or flatness of social hierarchies except crude counting of social categories; yet it is undoubtedly the case that to rise to the top of a relatively equalitarian society is much less or much more of an achievement than to do the same in a relatively stratified society, depending upon where one starts and what barriers he encounters along the way. Modern stratification theory has unfortunately not achieved the methodological refinement of a field like population analysis.

III

Occupational Change and Movement in the United States Have Raised the Prestige Level of the Average Occupational Position in the Labor Force. Or, perhaps better the other way around, net occupational movement has been toward the jobs of higher prestige. When the results of studies of occupational shifts are considered in the light of findings from studies of occupational prestige, there can be no doubt that expanding occupations on the whole are those of higher prestige

levels, whereas the contracting occupations are on the whole found at lower prestige levels. All studies, regardless of their method of classifying occupations, point to this phenomenon.

Using the customary census classifications, Bernert reports that between 1910 and 1940 white-collar occupations, both professional and clerical, showed the sharpest rates of increase, while operatives and service workers also increased at a rate greater than that for the labor force as a whole. Proprietors, managers, and officials, as well as craftsmen and foremen, lagged behind the rates of growth for the total labor force, while the category of unskilled labor showed enormous loss, both absolutely and comparatively.²

Palmer and Ratner show that these changes not only continued beyond 1940 but in many cases were intensified after that date. Thus Table 1 showing change by industrial classification underscores the growth of the tertiary, quaternary, and quinary industries.

Anderson and Davidson report similar findings. Using Alba Edwards' socioeconomic grouping of occupations, they show that for nonfarm occupations the rate of increase with certain exceptions is roughly proportional to position in the ordering of the occupational groups by status³ (Table 2).

Further evidence that the expanding occupations are of relatively high status and the declining of low status can be found in the study of occupations by the National Opinion Research Center in 1947.⁴

In the light of democratic values, such consequences of economic advancement are fortunate indeed, since it is not characteristic of history to bring people just the things they want. It would be wrong, however, to attribute this happy outcome to some form of social teleology, although this warning does not mean that such a development is unfit as a goal for public policy. To see how this coincidence has come about requires a two-dimensional analysis of the occupational structure. One of the authors suggested such an approach a few years ago⁵ and it seems worth while to apply his mode of analysis to the 1910-40 comparison.

If it be assumed that jobs and occupations have status values which are hierarchically distributed and, in addition, possess qualities which

² Eleanor Bernert, "Changes in the Occupational Structure of the Labor Force in Chicago, Philadelphia and the United States, 1910 and 1940," in Paul K. Hatt and Albert J. Reiss, Jr. (editors), *Reader in Urban Sociology* (The Free Press, Glencoe, Illinois, 1951), p. 342.

³ H. Dewey Anderson and Percy E. Davidson, *Recent Occupational Trends in American Labor* (Stanford University Press, 1945), p. 133.

⁴ Cecil C. North and Paul K. Hatt, "Jobs and Occupations: A Popular Evaluation," in Logan Wilson and William L. Kolb, *Sociological Analysis* (Harcourt Brace and Company, 1949), p. 467.

⁵ Paul K. Hatt, "Occupations and Stratification," *American Journal of Sociology*, May, 1950, pp. 533-543.

TABLE 1

INDUSTRIAL AND OCCUPATIONAL TRENDS IN NATIONAL EMPLOYMENT
BY GLADYS L. PALMER AND ANN RATNER(Taken from Table 6, page 19, Research Report No. 11, Industrial Research Department,
Wharton School of Finance and Commerce, September, 1949.)

OCCUPATIONAL GROUP	Employment per 10,000 Population			Net Changes 1910-40		Net Changes 1910-48	
	1910	1940	1948	Num- ber	Per Cent	Num- ber	Per Cent
Total—all occupations	3,866	3,430	3,987	-436	-11.3	+121	+ 3.1
Professional and semiprofessional workers	174	254	280	+ 80	+46.0	+106	+60.9
Proprietors, managers, and officials	946	675	755	-271	-28.6	-191	-20.2
Farmers and farm managers	667	390	319	-277	-41.5	-348	-52.2
Proprietors, managers, officials, excluding farm	279	285	436	+ 6	+21.5	+157	+56.3
Clerical, sales, and kindred workers	409	571	749	+162	+39.6	+340	+83.1
Clerical and kindred workers	217	350	502	+133	+61.3	+285	+131.3
Salesmen and saleswomen	192	221	247	+ 29	+15.1	+ 55	+28.6
Craftsmen, foremen, and kindred workers	439	384	554	- 55	-12.5	+115	+26.2
Operatives and kindred workers	558	656	838	+ 98	+17.6	+280	+50.2
Service workers	376	423	411	+ 47	+12.5	+ 35	+ 9.3
Laborers	964	467	400	-497	-51.6	-564	-58.5
Farm laborers and foremen	527	234	176	-293	-55.6	-351	-66.6
Laborers, except farm	437	233	224	-204	-46.7	-213	-48.7

SOURCES: Data for 1910 and 1940 from Appendix III; data for 1948 from United States Bureau of the Census, Series P-60, No. 5, *Current Population Reports: Consumer Income*, February 7, 1949. Data for 1948 refer to the civilian population only and are the results of a sample survey. Persons not reporting industry in 1910 and 1940 have been distributed proportionately among all nonagricultural industries.

TABLE 2

OCCUPATIONAL TRENDS, 1910-40, BY MAJOR OCCUPATION GROUP,* IN PERCENTAGE
OF ALL MALE WORKERS FOURTEEN YEARS OLD AND OVER
(EXCEPT INEXPERIENCED)

GROUP	1910	1940
All workers	100.0	100.0
Professional persons	3.1	4.7
Farmers (owners and tenants)	19.9	13.0
Proprietors, managers, and officials		
Wholesale and retail	4.0	4.7
Others	3.9	4.4
Clerks and kindred workers	9.2	13.4
Skilled workers and foremen	14.5	15.2
Semiskilled workers	11.2	18.6
Unskilled workers		
Farm laborers	14.0	8.5
Laborers except farm	18.2	13.8
Servant classes	2.0	3.8

* Alba M. Edwards' "social-economic" arrangement of the census occupational categories.

distinguish them from others without invidious implications, then the occupational structure can be conceived as segmented both horizontally and vertically. The first of these can be called strata and the second,

TABLE 3
COMPARATIVE STRUCTURE OF THE EXPERIENCED MALE LABOR FORCE BY
SITUSES, THE UNITED STATES, 1910 AND 1940

Situs	1910 Number	1940 Theoreti- cal Number (based on 1910 distribu- tion)	1940 Observed Number	Observed Number as Per Cent of Theore- tical Number
Total	28,000	38,000	38,000	
Professional	760	1,030	1,600	155
Business and white collar	4,740	6,430	9,000	140
Amusement, recreation, and intellectual	160	215	320	149
Agricultural*				
Farm owners, tenants, and managers	5,710	7,750	5,110	66
Farm labor	2,430	3,300	2,240	68
	8,140	11,050	7,350	67
Manual				
Skilled mechanics	1,755	2,380	2,670	112
Construction trades	2,700	3,665	3,560	97
Outdoor work	1,955	2,650	3,050	115
Factory work	3,970	5,390	7,150	133
General labor	1,080	1,465	690	47
	11,460	15,555	17,120	110
Service				
"Official," community	360	490	770	157
"Unofficial," community	1,300	1,765	1,145	65
Personal	1,080	1,465	695	47
	2,740	3,720	2,610	70

* Excluding unpaid family labor.

SOURCE: Sixteenth U. S. Census, *Comparative Occupation Statistics for the United States, 1870-1940*, Table 14.

situses. The particular situses used here are simply empirical products of a scale analysis of the N.O.R.C. occupational study; that is, they represent occupations which cluster together on some basis other than prestige. Little can be said of situses beyond the fact that people seem to think of them as groups of occupations. They do provide a series of vertical groups which, though they may correlate with status, are not gathered on this principle.

Table 3 presents a comparative analysis of the ways in which the

1910 and 1940 labor forces were distributed by *situses*. As we should expect, professional occupations show the greatest relative expansion, with intellectual, amusement, and recreational functions almost equally expanding. These facts underline the degree to which tertiary, quaternary, and quinary industries have become expressed in the occupational structure. It is significant to note, also, that when business and white-collar occupations are taken as a *situs*, their growth has likewise been great. The census category of proprietors, managers, and officials, it will be recalled, showed a growth less than that of the labor force as a whole, while the clerical, sales, and kindred workers grew rapidly. Perhaps because they include self-employers, census classifications seem to suggest a picture of downward movement, whereas if the total business world is viewed together, it is clear that such occupations, with their potential for mobility, actually provide evidence of a generally upward trend in prestige.

The agricultural *situs* has of course lost heavily but the net contribution of this change is hard to appraise. It can, however, be seen that both farm operators and farm laborers have contributed equally to the decline. Thus it cannot be said that the agricultural *situs* has declined by reason of the loss of farm operators as over against farm laborers. On the contrary, the increase in farm size and capitalization have undoubtedly functioned to raise the prestige level of the agricultural *situs* as a unit.

The manual occupational groups as a whole have increased somewhat, with factory employment and highly skilled trades other than construction leading the way. The construction trades (which seem to be lower in status for their skill level: carpenter 65 and plumber 63 versus machinist 73 and locomotive engineer 77, on the N.O.R.C. prestige scale) have shown a decrease, and general unskilled labor has been cut to less than half.

The service occupations as a whole show a great relative loss, but this again is for the lowest prestige jobs. "Official" community services, such as policemen, firemen, inspectors, and motormen, have actually shown a high rate of increase. It is the truly great losses in "unofficial" community services—deliverymen, gardeners, etc.—and the shrinkage of personal services which account for the over-all loss.

If then occupations are viewed not only from the standpoint of prestige but also from the standpoint of *situses*, it becomes clear that our occupational structure has moved far towards a more favorable distribution of socially desired and valued occupational positions.

These results may be encouraging in terms of the "American Creed," but an important question remains to be answered. Granted that the change in occupational structure has required widespread

intergenerational mobility, it still must be asked whether the possibility of free upward movement—apart from increase in the number of places available—has increased or decreased. Natalie Rogoff, analyzing data from Indianapolis for 1910 and 1940 and allowing for the change in occupational structure, finds that individual mobility has remained on about the same level for this entire period.⁶ If Indianapolis is representative, it seems possible to conclude that the economic structure is neither widening internal status differences nor developing a more and more rigid structure.

Proceeding from observations of this sort and speculating upon future trends, what can be seen? It seems possible to discern two trends which for many years to come will continue to mold and change our class structure. First, the continuing growth of technology, which has cut our unskilled labor requirements by over 50 per cent in thirty years, will undoubtedly continue. If technology has moved labor from the farm and out of the unskilled class into the factory, it may go on to move labor out of the factory and into tertiary, quaternary, and quinary industries, raising the general level of living while simultaneously reducing internal invidious distinctions. Not everyone appraises the consequence of technological advance in the same way. A recent paper issued by the Council for Technological Advancement, entitled "Automatic Control and the Automatic Factory,"⁷ was perceived in quite another fashion by the *Wall Street Journal*. Its November 28 article on the Council's bulletin was headed: "Robot Factories on Horizon; Piano Roll Blues Seen for Labor." Instead of the blues for labor, such a development may well be a song of hope—hope for employment at ever better kinds of work and for a fuller enjoyment of work. We have already seen unions in the position of criticizing particular managements in certain industries for not raising productivity faster, and we shall probably see more of it.

IV

Educational Institutions Are Becoming Ever More Important in the Assignment of Prestige and Occupational Position in the United States. And the level of education itself is developing both the needs and values associated with an expanding level of living while providing the human resources required to satisfy them.

The major changes in occupational composition of the labor force have involved important changes in methods of recruitment. It seems safe to assert that the traditional recruiting institution for the occupa-

⁶ Natalie Rogoff, "Recent Trends in Urban Occupational Mobility," in Paul K. Hatt and Albert J. Reiss, Jr., *op. cit.*, pp. 406-420.

⁷ C.T.A., Bulletin No. 6, November 24, 1952.

tional structure used to be the family. In the extreme case of feudalism, it was a question of being born base or noble; after the industrial revolution, of being born poor or wealthy. Today it seems that the role of education has, because of greater stress upon it for entry into desired occupations, done much to open the doors to achievement.

This point seems entirely consistent with the findings presented above. Situdes showing the greatest increases in numbers were those

TABLE 4
COMPARATIVE GROWTH OF SELECTED PROFESSIONS, THE UNITED STATES, 1910 TO 1940
(100 = 1940 expectation based on 1910 proportions)

Author	379
College professor	326
Chemist	275
School teacher	169
Artist	163
Civil engineer	152
Dentist	136
Musician	131
Newspaperman	121
Lawyer	117
Architect	99
Clergyman	89
Physician	84
All professions	155

SOURCE: Sixteenth Census, *loc. cit.*

depending heavily upon education: the professions, the intellectual, artistic, and amusement fields, and the area of business employment. Within the latter group, it was also evident that those for whom family connections are presumably most important—proprietors, managers, and officials—have decreased, while the white-collar segment—whose qualifications are education—have increased. Table 4 shows that not all professions have grown at equal rates.

It can be seen at once that the great growth of the professions is not accounted for by the classical faculties of law, medicine, or theology, but is the product of the disciplines of sciences and the arts. The growing significance for our occupational structure of both advanced general and technical education seems clear. As tertiary, quaternary, and quinary industries continue to grow—both because of technical developments and because higher education increases demand for their services—the operation of educational institutions takes an ever more influential part in the process of social stratification.

V

Social Mobility and Economic Advancement Are Functions of Access to Education. Certain Cassandras warn that the market for

college graduates is limited and the supply can easily be overproduced, driving down salary levels and creating unemployment among people trained for and expecting professional positions. The report of the President's Commission on Higher Education, which recommended both equalization and expansion of opportunity for college training, is the special target for these alarmists. Some go so far as to suggest that such equalization and expansion of opportunity will lead automatically to fascism, through the disaffection of frustrated professionals. The best moderate case for this point of view was presented by Seymour E. Harris in 1949 in *The Market for College Graduates*, but was foreshadowed from the sociological point of view in *Who Shall Be Educated?* by Warner, Havighurst, and Loeb in 1944. We cannot engage here in a detailed critique of those two books, but it appears to us to be better economics and better sociology to maintain the opposing point of view: to widen the channels to social mobility and economic advancement, through equalization and expansion of educational opportunity, is the surest means to maintain full employment and social harmony in our dynamic society.

Please regard our assertion of the corollaries to this proposition as epigrammatic rather than dogmatic or, better still, as hypotheses for verification by our continued collaboration:

1. Investment in the quinary industries—health, education, research, and recreation—has to be predominantly public investment. Thus the cry for reduction of taxes in order to increase the flow of risk capital may be quite ill-advised if economic growth become the criterion of fiscal policy. Rather taxation may need increasingly to be reconceived as public saving.

2. Investment in quinary industries offers the highest multiplier of any form of investment. This has already been recognized by industrial leaders with respect to research, and they are on the verge of recognizing its validity for education. We would predict its eventual recognition for the development of basic human resources through health and recreational programs. Economic analysis of high industrial society may show advancement to the thirty-hour week will contribute more to over-all productivity than would return to the sixty-hour week.

3. Further equalization of consumption may be found to contribute to further lifting of the general level of consumption. Or put another way, the once direct relation of social mobility and economic advancement has become an inverse relationship.

4. Because the formerly inverse relationship between social status and fertility is in process of becoming a direct relationship, the ability of families to pass on their status to offspring is being profoundly weakened. The most secure endowment of their children is not in cash

but in education—a very good investment even from the strictly cash point of view, as economists like Harold Clark and Milton Friedman have shown.

5. Finally, let us admit explicitly that it is employment of scientific research in the continual re-evaluation of public policy which has pushed us into our interdisciplinary endeavors. All around the world, economic advancement is being reconstrued, not as the providential expression of a natural order, but as the outcome of policy decisions. We pay tribute to those economists who have pioneered in this fundamental reconstruction of social thought. The sociologists of stratification have lagged somewhat but are catching up in order to work with them on the common problems of social mobility and economic advancement which still lie ahead of both disciplines. In theory we analyze and departmentalize; in practice we are one.