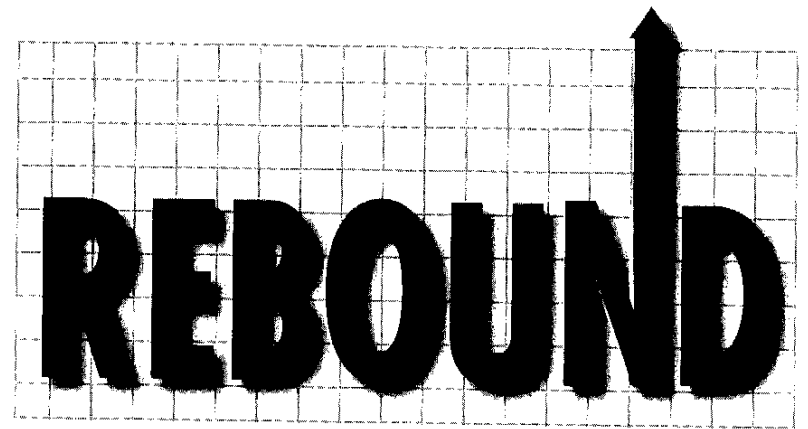


ALSO BY STEPHEN J. ROSE

Social Stratification in the United States, 5th Edition



WHY AMERICA WILL EMERGE STRONGER
FROM THE FINANCIAL CRISIS

STEPHEN J. ROSE

CHAPTER 5

The Hamburger Flipper Economy—The Myth of the Disappearance of Good Jobs

WE HEAR IT all the time. All the good jobs are being outsourced to China and India. Americans don't make anything anymore. It's flipping burgers or the unemployment line.

But the notion that the overall quality of American jobs has declined in recent years is an outlandish claim. By focusing solely on the decline of well-paid unionized blue-collar jobs, the growth of high-end managerial and professionals jobs is missed. If we were indeed becoming a low-paid service economy, the suburbs would be wanting for home buyers, those shopping malls wouldn't be so crowded, and the recovery after the financial crisis would be doomed.

The so-called decline in the number of good jobs because of the decline in manufacturing employment occurred during a time when the economy was growing and educational attainment was rising. For example, real GDP growth per person (our best measure of the amount of economic goods consumed adjusted for inflation and population growth) has nearly tripled (grown by 174 percent) from 1960 to 2008. Accompanying this growth (and one of the major reasons for it) was a massive increase in the educational attainment of those working: As noted in the previous chapter, we went from a labor force in 1960 with over half of the workforce not having a high school diploma, to a labor force today in which over 60 percent has some postsecondary education, and 30 percent has a bachelor's or graduate degree.

these positive macroeconomic events. Can it really be true that a more educated workforce has worse jobs? Further, how can a bigger economic pie (higher real GDP per person) lead to a larger share of people having low earnings? Showing how the new service economy is composed heavily of managerial and professional worker will go a long way to understanding how growth will resume after the financial crisis is over.

There is a lot of confusion about the nature of service employment. This shift is often presented as a negative trend because service jobs are not thought of as "good jobs." The popularized form of this sentiment is that "we are becoming a nation of hamburger flippers." More scholarly treatments of the issue have argued that "manufacturing matters" because "deindustrialization" (or the "hollowing out of the American corporation") decreases the demand for activities in the high-end service jobs that are closely tied to production—e.g., design, research, selling, etc.

The purpose of this chapter is to show that economic growth, higher educational attainment, and service sector growth are compatible, and that there has been an increase, and not a decline, in good jobs. In fact, the vast majority of people who have bachelor's degrees work in the service sector and, correspondingly, most of the people who live in upscale suburbs are service workers. Recovery will come from here.

Most people don't understand the service economy because they have a narrow conception of services as barbershops, fast-food restaurants, and the like. Although the terms "knowledge economy" and "postindustrial economy" are used broadly, they are rarely carefully defined. In this chapter, I will reexamine the question of what people do and how to classify their work.

By developing "functional" groupings to replace industrial divisions (which are the current basis for distinguishing manufacturing from service jobs), we can put similar activities across firms into the same categories. In particular, we'll classify front-office activities across all industries, along with business and financial services and public administration as a common "office function." As will be shown, these activities represent a very large share of our economy (over half of all earnings). This finding is somewhat counterintuitive because there is a common presumption that the production of goods is more important than paper-pushing activities. But the importance of office work should not be surprising if you just look up at all the large office buildings in down-

Tradable Goods and the Functional Division of Labor

Today, we are living at the end of a long cycle of technological innovation, one that has made producing consumer goods relatively easy. Two hundred years ago, the vast majority of people around the world lived and worked on farms. Progressive improvements in the production of food within industrialized countries have reduced the number of people engaged in farming to less than 1 percent of American workers.

In much the same way, the share of employment in the manufacturing sector has declined since reaching its peak in the 1950s. Like agriculture, technological changes have resulted in a significant decline in the number of workers needed to manufacture ever more goods. In its place, the employment in the "services" sector has grown considerably, absorbing all of the increase in employment since 1960 in this country and in every other industrialized country in the world.

A typical day for many people begins with turning on a morning TV talk show while they get ready for work and have breakfast. On the ride to and from work, a local radio station will be broadcasting favorite songs and traffic information. At work, they may do a Google search a couple of times, check in with the online version of *The New York Times*, CNN, *USA Today*, or *Sports Illustrated*, and print out Mapquest directions to a restaurant that was recommended by an online city guide. After dinner, there will be several more hours of watching TV before going to sleep.

Throughout this unremarkable day, few will be aware of how many "free" services they have utilized. Underwriting these cashless transactions is the \$350 billion a year companies pay for the opportunity to get your attention for from ten to sixty seconds in order to show you an advertisement for their product. In the jargon of the trade, they are competing for "eyeballs," even though they only expect to influence at most a few people out of each 1,000 they reach with their ads.⁶⁹

The costs of advertising are borne by consumers indirectly in the form of higher prices for the goods that are being advertised. At first glance, it may seem odd that you are paying to be convinced what to

buy. But from the producer's point of view, advertising is as much a necessary expense as buying the raw materials and fabricating the product. In a very competitive marketplace, it is advertising that helps convince consumers to buy your product rather than your competitor's product. And it is the final sale that validates your decision to create the company and your products.

In our daily lives, we are accustomed to most economic transactions being done with money: We get paid a salary; we buy goods from the store and pay our mortgages; we save money in retirement accounts so that we will have money when we are not working. These everyday events are actually the result of a long historical process that began with money being used only for trading a very limited number of goods and very few people working for wages.

While ubiquitous money facilitates modern transactions, the use of money also adds a layer of confusion about how economies really work.

One way to understand the structure of the economy and to build a functional approach to classifying labor is to start at the margins of the economy and work toward the center. Consider, for example, the plight of the non-Eskimo, back-country inhabitants of the Alaskan wilderness. These people have forsaken the conveniences of modern America for solitude and deep connection to the land. They are mostly self-reliant, doing their own hunting, fishing, and gardening, while building and maintaining their own homes.

Nonetheless, these back-country Alaskans depend on the outside world in many ways. While some may fashion bows and arrows to hunt, the majority buy and use the much more effective firearms. Similarly, it is easier to purchase flour and other staples (e.g., nails, paper, wire, etc.) that are hard to grow or produce and for which there are no easy substitutes. They get these provisions, equipment, and even fuel and parts for their snowmobiles on periodic trips to town. Their mail is delivered monthly by plane, and children are taught during the periodic visits of a teacher; in winter, both the teacher and the pilot stay the night.

Their economic interactions with the outside world are conducted in cash, requiring a source of income, often earned selling furs, food, and/or crafts. This lack of complete self-sufficiency means that they engage in the marketplace by bringing "tradable goods" to earn money to pay for those items that are difficult to produce for themselves. Obviously, people make choices regarding their degree of self-sufficiency,

⁶⁹ Young people are an especially critical target audience because they are more

of those at the edges of our economy personify the concept of division of labor. The choice these consumers face is either to produce something themselves, forgo consumption, or work at something that can be traded with others for cash to purchase items in town. Choosing to produce for the market represents their work "specialization" beyond meeting their consumption needs.

The distinction between being self-sufficient and producing tradable items is clear for people who live in the backwoods, but it is also a choice made by wage earners in metropolitan areas. We actually have a lot of choices between working more and paying for services. Do we do our own housecleaning or hire a maid or an outside service? Do we prepare our own meals or eat out? Do we take care of our children or hire a nanny? Do we rake the leaves and cut the grass or hire someone to do these chores? While these choices face everyone, the wealthy, not surprisingly, are the biggest consumers of these "maintenance" services.

To further understand economic structures (that we often take for granted), let's continue to move from the periphery to the center. In its turn, small towns have general-purpose shops providing basic necessities such as groceries, gas, tools, hardware, and clothing. These shops are depositories of items needed by occasional travelers or by those who live in the countryside. They are usually staffed by the owners, with a little assistance from hired help. The meager profits, based on the markup from wholesale prices, support the overhead, the owner's salary, and wages for any employed workers.

It is not difficult to understand the economic importance of this sales function. Direct barter or even direct buying from the original producer is much too cumbersome and inefficient. These retail shops provide an intermediary role that facilitates the flow of goods to the country residents, and a destination for the tradable goods that those residents produce. Even though sales workers do not produce anything themselves, they are an integral link in the overall division of labor that ties producers to consumers. In essence, most small retail shops provide a service rather than act as a direct producer.

As towns grow in size and serve ever larger populations and wider geographic areas, the level of specialization grows accordingly. In addition to a growing variety of stores with more specialized goods for sale, there are now barber and beauty shops, hotels, restaurants, repair shops, doctors and hospitals, lawyers, and entertainment facilities (e.g.,

bars, movie houses, bowling alleys, etc.). The economic functions of the town are now many, serving local residents, business travelers, tourists, and specialized service providers to smaller towns.

The movement to cities is reflected in the size of the enterprises; instead of the solitary producer, there are multiperson work sites and factories. As Adam Smith so vividly described in the production of pins, an internal division of labor is much more efficient than simply reproducing an equal number of independent producers. The larger scale of production makes the use of machinery more economical. In this case, tradable goods are not furs and other items extracted from the land but manufactured output. And the money generated is not just for the isolated individual, but for the collective enterprise.

Within manufacturing enterprises there is much more diversity than first appears to be the case. The process of production may be simple for the back-country Alaskan hunting and selling furs, but grows in complexity as firms become larger. The role of the owner expands to include supervision of their employees, bargaining over wages and working conditions, marketing, raising financing, arranging transportation of the goods to market, and devising strategic short- and long-term planning.

Most of these tasks are required by all producers, including the solitary hunter, but gain in significance as the size of the company grows. In the largest firms, there are separate legal departments, sales forces, and layers of management from the president to the line supervisor. Smaller firms contract out for many of these tasks because key managers are not skilled enough. As a result, a variety of consultants and firms providing legal services, advertising, accounting, etc., have developed to fill this niche. Over the last thirty years, these "business-to-business" services have been one of the fastest-growing sectors of the economy.

As economic activity grows, individuals and even families no longer desire or are able to manage and finance them alone. The separation of ownership and management leads to new kinds of economic units. Companies are now owned by stockholders who, in turn, are represented by a board of directors. These directors are themselves neither the direct managers nor the majority owners of the firm. The solitary producer is replaced by a network of specialists with an extensive differentiation of tasks. The value of the tradable good is now shared by all of the participants including the absentee owners. Instead of the money flowing directly to the single producer, there are now allocations for wages for

workers, salaries for managers, profits for owners, and retained earnings for future growth.

The growing complexity of production is mirrored by a more intricate social fabric. The public sector performs a myriad of functions: maintaining a legal and financial system; providing education from kindergarten to postgraduate level; providing for social stability with police, fire departments, and prisons; creating and enforcing overall regulation; and even creating systems to take care of the elderly, sick, and impoverished. In addition to the public administration, nonprofit institutions, membership organizations, unions, religious institutions, and social service agencies perform a coordinating/societal support role in education, health care, and other social services.

Finally, a series of economic and legal institutions have developed to facilitate economic and political transactions: banks provide credit and finances; legislatures pass laws; lawyers write contracts; disputes are litigated in courts; insurance companies pool risks; and other specialized actors facilitate the flow of goods and commerce.

Over time, business and societal coordinating functions are more and more the lifeblood of modern economies. The large downtown office towers are the home of banks, insurance companies, lawyers' offices, and the like. They serve not only their local region, but tend to provide services to concerns in smaller cities. These activities represent one of the largest tradable goods of big cities vis-à-vis smaller cities and the rest of the world. There is a hierarchy among cities in which large cities perform functions for smaller ones that in turn buy more sophisticated professional services from yet larger cities.

This tracing of economic activity from the isolated back-country trapper to the central business office district roughly approximates the evolution of modern economies. There has been a relentless march of an increased application of scientific principles to production (often set in motion by military needs). In eighteenth-century Europe, productivity in agriculture finally reached the point where it could support a large urban population. The ensuing inventions around power devices (steam, then electricity) and structural elements (beginning with iron) permitted increases in the scale of production. Advances in transportation (railroads and steam-powered ships) and communication (telegraph and telephone) facilitated the geographic expansion of markets. And as these technologies were developed and placed into production, nation

building (often in midst of war) and new social institutions (banking, insurance, etc.) formed to accommodate new needs.

As capitalism matured, fewer and fewer people were tied to the land and the high level of self-sufficiency that goes with rural life. More consumer functions were commoditized with the growth in the division of labor. With each advance in productivity, mankind moved up the hierarchy from basic consumer necessities to more discretionary items. What were once luxuries (e.g., first sugar, and later automobiles) became basic items in most people's lives. Over time, the highest productivity gains have been made in the production of goods, freeing up labor to provide more consumer services, especially in health care and recreation (e.g., travel, performing arts, spectator sports, athletics including sports clubs, and other entertainment activities).

With each step forward, the size and scope of the market has increased, permitting an ever finer division of labor, in particular, an increase in the relative size of managerial and coordinating activities. More people are engaged in managing a geographically disparate and internally complex production process. Furthermore, the marketing environment is very intense as each firm tries to distinguish it from others and to develop brand loyalty. More and more, the competition is over convenience, originality, and adaptation to changing tastes.

Defining Five Functions

In an economy in which three-quarters of workers are in service industries, the service category is too broad to be analytically useful.⁷² A better framework will allow us to avoid the negative stereotype of services with their supposed lack of good jobs. Further, if we are ever to understand what workers with postsecondary education do, we need to break free of the simplistic view of good jobs in manufacturing and dead-end jobs in services.

In the approach developed here, functions are defined as common

⁷² The first paradigm shift in economics occurred in mid-eighteenth century in Europe, when agriculture and home production predominated. The French Physiocrats argued that only agriculture added to a nation's wealth and that manufacturing activities were barren (using up as many resources as was added). Starting with Adam Smith in the late eighteenth century, this distinction was dropped, and economists focused on the production and distribution of wealth, treating agricultural and manufacturing equally. By emphasizing the advantages of the division of labor and self-interest, arguments for free markets at home and abroad in goods and labor came to dominate economic thinking. Further, as the Industrial Revolution matured, manufacturing became viewed as the dominant economic

production activities.⁷³ Why should we focus on functions? Allocating employment by the primary industry of the firm can often distort or obscure the true nature of the work performed. For example, sales and management employment within manufacturing firms has grown to one-third of all jobs in these companies. With whom do managers and business sales representatives have more in common in terms of the pay and nature of work? Is it the factory workers or other business professionals in finance and management consulting companies? The answer is fairly obvious and our categories should reflect this. In fact, in large manufacturing companies, the administrative and sales offices are often located in separate facilities, far from where the production takes place.

Another example involves outsourcing: consider people employed by one of the world's largest temporary service firms, Manpower. When it places workers in factories for temporary periods of time, these workers are counted as part of the service sector, thus overstating service employment. Alternatively, when a firm like General Motors outsources management and accounting work, these workers may also not appear in the correct category of work.

The unique characteristic of the functional approach is that employment within the same firm is allocated into different categories based on the nature of the work. In a few cases, even the same job category is split between functions. Since construction foremen both do work and supervise others, these employees are split between doing manual work and being part of management. Or, consider communication services that serve both consumers and companies. To be consistent, these workers are split between high-end consumer services and business management.

The five functions are defined as follows.

1. Raw material production ("Primary Production")

The farm function represents all the direct labor in extracting raw materials from the land, sea, forests, and underground. Historically, we have only moved away from the countryside in the last century. As late as 1900, 40 percent of the labor force in the United States was still involved in agriculture. In less-developed countries today, as high as 75

percent of the population remains in rural settings, barely eking out a subsistence standard of living.

Our solitary Alaskan producer belongs in this category, as would all of the small farmers and independent producers in this country. But even in these industries, most employees work in medium and large concerns, and there is much more mechanization and use of new technologies. Along with the corporate farm, many of the extractive processes have been industrialized. Mining operations are structured very much like many factories while logging, in fact, is officially listed as a manufacturing industry. Nonetheless, these are extractive processes tied closely to natural resource development.

It should be noted that the purpose of this category is to isolate and identify the labor expended on direct production. Farm owners and managers and blue-collar supervisors in the other industries have the joint responsibility of doing the work and overseeing others. As a result, these workers are divided equally between direct productive work and management/supervision, with the latter half being assigned to the office function.

2. Industrial production ("Secondary Production")

This category, representing industrial production broadly, includes direct labor in manufacturing, construction, public utilities, and transporting and storing goods on their way to market. Since these traditional blue-collar jobs often require heavy lifting and physical exertion, they have been mainly performed by men. The isolated artisan has been replaced by large factories and work sites. The first workers to unionize in this country were skilled craftsmen in various trades in the second half of nineteenth century. By contrast, the wave of unionization under the banner of the CIO in the 1930s occurred among the less-skilled workers in these large factory settings.

Nonmanufacturing industrial employment consists of blue-collar workers in construction, public utilities, transportation, and wholesale industries. These industries have a similar work organization as the manufacturing companies and are paid at the level of high-wage manufacturing employees. Longshoremen, truck drivers, utility workers, and warehouse movers all have similar skills comparable to workers in construction and manufacturing.

This category also includes a few non-blue-collar workers, such as aircraft engineers who are intimately connected to the production

⁷³ I developed this approach while employed by the Educational Testing Service. The original description and supporting data through 1995 were published as Anthony Carnevale and Stephen Rose, *Education for What? The New Office Economy*,

highly sophisticated machinery and are now classified as technicians and technologists rather than skilled blue-collar workers. Finally, line supervisors are again split between performing production work and supervising, which is part of the fifth function.

3. Low-skilled services

The third category consists of workers with direct consumer contact that do not require highly specialized training or a massive physical capital base. In general, these personal contact jobs require the least skill and can be flexibly staffed by newcomers and part-timers. More than any other function, these jobs fit the image of dead-end jobs with little chance for high pay and mobility up the career ladder. Historically, these jobs have been often held by women and men with the least education.

The jobs in this function usually have direct personal contact with the consumer, either in sales or services that do not require high skills. Not all of the jobs in this area are low paid. Some salesclerks in hardware stores and upscale clothing outlets earn considerably more than department-store clerks. Within the food service sector, McDonald's workers make just above the minimum wage while the waitstaff at elegant restaurants garner hefty tips at dinner and lunch. Finally, entertainment companies are staffed mainly by ushers and ticket takers, but also include those on the stage or on the ball field. While many in this latter group toil for low wages, the few stars shine brightly and command some of the highest pay in the country.

4. High-skilled services

The fourth function is similar to the third in involving direct personal consumption but the service now requires the effort of more skilled labor. Interestingly, these services, which have a number of higher-paid workers, have historically been organized by the government, nonprofit concerns, and regulated private industries. The two major professional services that fall into this category are health care and education.

The difference between these services and those in function three is highlighted by the nature of their workforces. In low-skilled services and retail, only 11 percent are managers or professionals, and 50 percent are operatives, service workers, or helpers. Education is the most professionalized of all industries with 61 percent of those employed being

managers or professionals and only 16 percent being among the least-skilled. In health care, there are doctors and registered nurses but also licensed practical nurses and orderlies: 39 percent of the health care employees are managers or professionals, another 15 percent are medical technicians, with 32 percent falling among the least-skilled.

Personal transportation and communication employment do not fall clearly or easily into any category; they are neither a professional service nor a low-skilled personal service. Because there is so much physical capital requirement (e.g., phone lines, airplanes, trains, etc.), most of these workers have medium skills and moderate pay. Many of these work situations are similar to industrial workers but clearly no physical product is involved. So, the 1 percent of the labor force employed in this category (many more workers are involved in servicing other companies through trucking and business travel and communication) is allocated to this fourth category of higher-skilled services.

Another higher-skill service activity is performed by police and firefighters. Due to their unique characteristic of serving the public good, they have been historically subsumed in the public sector. In this approach, these workers are allocated to the high-skill service, while other public administration workers are included in the office category.

5. Office and other administrative activities⁷⁴

The work of managing the overall affairs of business and government is diverse and grouped into five subcategories. First, the task of coordination and supervision in industries producing a good or performing a service consists of all managers and one-half of line supervisors in these companies. Second, the entire FIRE sector (finance, insurance, and real estate) is included. This is done because these functions fundamentally are about managing assets, be they personal or business. They are part of the large, somewhat hidden, intermediary business expenses of companies, while for individuals they represent a very different kind of "consumption" than either of the other two service functions.

⁷⁴ Office activities involve more mental than manual labor and could be considered the "brain" functions of the economy. While it is traditional to think of the brains (or "superstructure") as small relative to the body, we are now in an economy where coordinating labor is almost as large as the entire effort of producing goods and services.

The third component of this function represents business professionals employed in the managerial hierarchy. There are almost as many people employed here as in all of FIRE. The majority of these workers are sales representatives, accountants, and the like. But there are also one million science-related professionals who neither work in academia nor for manufacturing firms. These are often computer-related analysts servicing headquarters activities.

The fourth part of the coordinating function includes those employed in public administration. This is a coordinating function at the communal level. The largest component of public employment revolves around educational institutions (which are in the fourth function), with only one-third concerned with more purely administrative activities.

The last component consists of the support staff, primarily the army of clerical and administrative workers. Also included in this group are the janitors and other office help that are neither professionals, nor managers, nor clerical workers. These individuals are the least well-paid and only represent less than one-third of the overall employment in this function.

Before proceeding to the empirical analysis of the functional approach, it is interesting to note that each function is associated with specific types of workplaces and usually a few stands out.

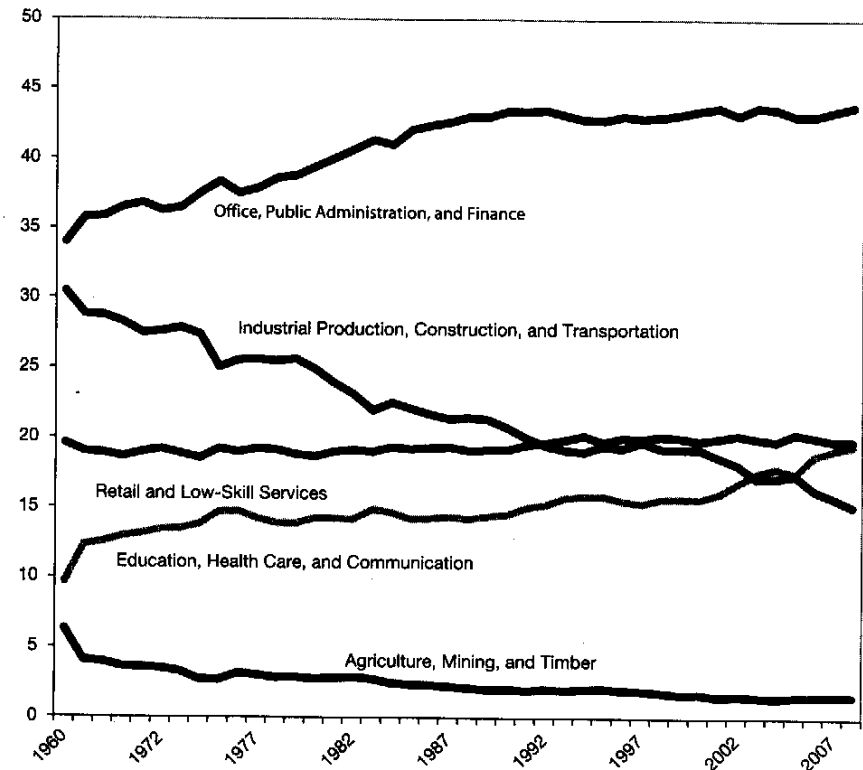
- Farm and mines
- Factory, loading dock, and construction site
- Sales counter and restaurant
- Hospital and school
- Office

Tracking Functional Employment and Earnings

Figure 5.1 reveals several trends about the evolution of employment in the five functional sectors from 1960 to 2007. There is a nice symmetry in the changing employment shares over time: two functional areas declined, one remained constant, and two grew.

First, there was a marked decline in the share of employment in the

Figure 5.1: Shares of Functional Employment, 1960–2008



1960 Census and March Supplements to the Current Population Survey

manufacturing/construction function, from 30.5 percent of employment in 1960 to 18.4 percent in 2007. In fact, the absolute number of jobs in these areas has remained at approximately 25 million since 1979, despite the growth of the number employed of over 40 million. Certainly, the rate of decline has lessened in the last decade, and the share of employment in this function will likely continue to decline very slowly in the years ahead.

The nonmanufacturing part of this group—direct labor in construction, delivery, longshoring, and utilities—had only a minor decline in its share of total employment. By contrast, the share of low-paid manufacturing employment fell from 8.1 percent in 1960 to 2.7 percent

in 2005, and the share of high-paid manufacturing fell from 12.6 percent to 5.5 percent over these same years.

The consequence of the decline of this sector is that it has hit less-educated male workers hard. Among those who did not even get a high school diploma, nearly half have been employed in this function over the years studied. Those with a high school diploma but no postsecondary education account for nearly 40 percent of the jobs in this sector.

The other declining functional area was primary production in agriculture and mining. In 1960, 6.3 percent of workers were employed in these jobs, and this figure declined to 1.6 percent in 2007. Considering our past, when a large share of the population worked in agriculture, the current share of people employed in activities connected to the land is breathtakingly small. The astonishing increase in productivity in this sector is most evident in the fact that less than 1 percent of the labor force produces enough food for our entire population and for export. Even twenty years ago, one study found that it took more secretaries than farmers to bring food to the American table.

Third, in what may be a surprise for many, the employment share of the low-skill service sector has remained relatively constant at 20 percent of the labor force. Many people have taken it on faith that a declining manufacturing sector must mean a rise in low-skilled services. The only indirect evidence of this is found in the biennial report on ten-year employment projections. It appears that the fastest-growing job titles are low-skilled service jobs. But this "fact" is based on the anomaly that most job titles are very finely defined—e.g., managers in seven different industry categories—while job titles among service jobs are broad and consequently have many more workers.

Fourth, the office sector rose in importance from employing 34 percent of employees in 1960 to 43 percent in 2007. This sector grew steadily through 1988 and then leveled off with its share of employment varying slightly around 43 percent. Part of the leveling off was the decline in the share of clerical workers associated with the increased use of computers. This decline offset the slight increase in the years prior to 1988. Furthermore, another subcomponent of this sector that had a constant share of overall employment was public administration (2005 employment of 4 percent of the labor force). This means that all the growth in this sector was due to expansion in the employment of managers, sales representatives, stockbrokers, and other professional workers.

high-skilled services (from 9.7 percent in 1960 to 18.4 percent in 2007—a level that almost equaled that of blue-collar employment in manufacturing and construction). Most of this growth was due to the huge expansion in the health care sector. The number of jobs in education grew quickly in the 1960s and then remained fairly steady at 8 percent of overall employment. Similarly, the number of police and fire jobs edged up slowly over these years to 1.3 percent of employment.

Finally, another way to look at the economic impacts of the five functions is to measure the shares of total earnings rather than just employment. Figure 5.2 tracks the earnings in each of the functions, showing the dominance of the office sector. Since 1986, workers in this sector accounted for more than 50 percent of all earnings in the economy. This reflected their increasing numbers, higher than average pay, and the increasing premium of being in these jobs.

Figure 5.2: Shares of Earnings by Functional Area, 1959–2008

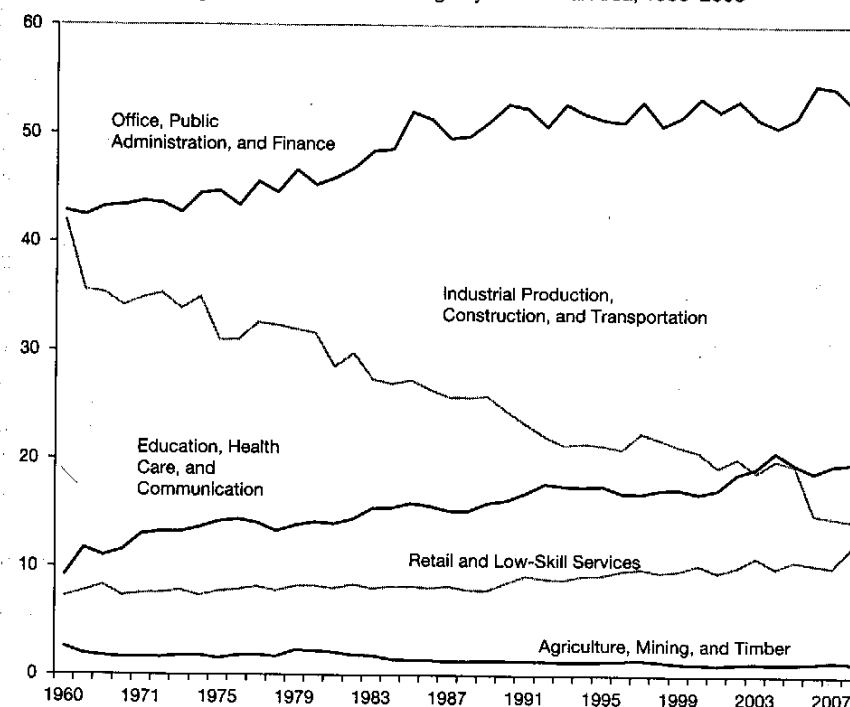
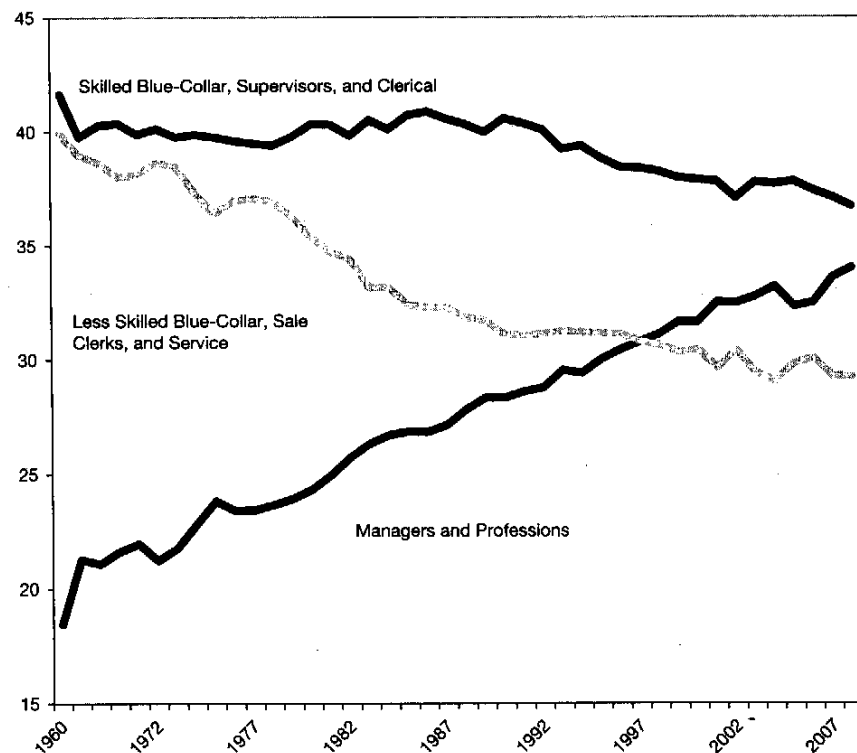


Figure 5.3: Shares of Occupation Tiers, 1960–2008



1960 Census and March Supplements of the Current Population Survey

not forced into jobs for which they were overeducated. By contrast, the largest reduction occurred at the bottom of the occupational hierarchy as the share of less skilled blue-collar, salesclerks, and service workers fell from 40 percent to 30 percent. The share of workers in the middle tier remained at the highest level of the three tiers but edged down from 42 percent to 38 percent.⁷⁵

Although there was a shift to higher-end jobs, the shift in educational attainment was significantly greater. Consequently, there was a large amount of educational upgrading within jobs in each of the three grand tiers. Basically, in virtually every occupation, new hires had higher

⁷⁵ Erik Olin Wright and Rachel Dwyer also find an upgrading of jobs in "The

educational credentials than had previously been required. For example, insurance agents, midlevel company managers, and sales representatives (those who sell to business and not the public) used to only need a high school diploma to qualify for these positions. Now, very few workers in these positions have at least some college, most have a four-year degree, and a few have a graduate degree such as an MBA. Specifically, this meant that in 1960, 54 percent of those in elite jobs did not have a four-year degree and 36 percent had at most a high school diploma. By 2007, the share of those with only a high school diploma fell to 13 percent, and 65 percent of the workers in these jobs had a four-year degree.

The same upgrading occurred in occupations in the other tiers. In the middle tier in 1960, fully 48 percent did not have a high school diploma, while another 36 percent had a diploma but no postsecondary education. By 2007, there were few (9 percent) dropouts in these occupations and another 37 percent with a high school diploma as their highest educational attainment. This meant that over half of these middle-tier workers had some postsecondary education.

Even in the lowest tier, the workers have become better educated. In 1960, 95 percent of these workers had no postsecondary education, and 73 percent did not have even a high school diploma. By 2007, only 23 percent did not have a diploma in these jobs; 45 percent had a diploma; and 32 percent had some postsecondary education.

Conclusion

There have been three major trends in the employment market over the last fifty years:

- The share of manufacturing employment has declined;
- The share of workers with a postsecondary education has increased; and
- The share of elite managerial and professional jobs has risen while the share of low-skilled jobs has declined.

Surprisingly, there is no commonly accepted unifying narrative that easily explains these trends. Instead, many people have talked about the rise of services, emphasizing the low-end services of retail and fast-food