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BUSINESS PROCESS OUTSOURCING: AN EXPLORATORY STUDY

A Thesis

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Master of Arts
in
The Department of Sociology

by

David R. Johnson

B.S. Business Administration, 2000

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ABSTRACT

This study examines the emergence of Business Process Outsourcing (BPO) in white collar occupations. Recent BPO practices are compared to the offshore outsourcing of production in the context of the shift from Fordist to flexible production. The study considers BPO in light of Harry Braverman's theory of work degradation and whether or not BPO extends the traditional division of labor between conception and execution to higher skilled white collar occupations. An exploratory qualitative approach comprised of informant interviews, a focus group, and literature review was used to analyze how BPO occurs, why it happens, and where it takes place. I discuss the role of politics and corporate culture in outsourcing white collar jobs and examine the practice of transitioning workers from client to BPO service providers. The study concludes with a skill-based typology of BPO services and suggestions for policy and future research.

INTRODUCTION

Outsourcing to low-cost labor markets has recently become a controversial political and business topic. While advanced industrialized nations have been outsourcing manufacturing to the developing world for decades, the practice in the service sector presents a threat to higher skilled jobs previously considered insulated from global competition. Offshore outsourcing of white collar service sector work has traditionally been limited to low-value added tasks such as processing credit card payments or call center work. Recent headlines, however, suggest that higher skilled service occupations such as accounting and computer programming are going offshore in large numbers. One evolving area of the outsourcing market that suggests a greater number of professional occupations are now at risk is business process outsourcing (BPO). BPO allows businesses the opportunity to have a wide array of common corporate functions previously performed and internally executed by third party service providers, including human resources, finance and accounting, and supply-chain management. While discrete tasks within each of these areas (e.g. payroll processing) have been outsourced in the past, the continued integration of business processes and information technologies has fundamentally transformed the extent to which parts of the production process can be divided and relocated.

The suggestion that outsourcing will eliminate these jobs seems to have extended public skepticism of free trade policy beyond lower and middle class workers to more affluent professionals. A February 2004 University of Maryland poll corroborates this sentiment, finding that support of free trade among Americans earning more than \$100,000 a year has dropped from 57 percent in 1999 to 28 percent in 2004 (Despeignes

2004). Outsourcing became the topic of considerable political debate during the 2004 presidential election, reflecting national concern over the loss of both low and high skilled jobs. John Kerry wanted to “repeal the tax loopholes and benefits that reward Benedict Arnold CEOs and companies for shipping American jobs overseas” (Weisman 2004), while chief economist Gregory Mankiw brushed off outsourcing as “just a new way of doing international trade” (Stokes 2004). State-level political backlash in New Jersey, Connecticut, Missouri, Maryland, and Wisconsin among 33 other states considering restrictive legislation has also focused a great deal of attention on outsourcing. However, the majority of attention outsourcing has received comes from business literature, news media, and the internet. One study found that during the five months between January and May 2004, 2,634 U.S. newspaper articles addressed outsourcing and job loss fear (Amiti and Wei 2004). According to a study by Deloitte consulting, negative media sentiment outpaced positive coverage by 30 percent during 2004 in survey of articles in *Business Week*, *Fortune*, *Washington Post*, *The Economist*, *Forbes*, and *The Wall Street Journal* (Landis 2005).

While there exists a great deal of provocative literature on outsourcing, treatment of the topic tends to be concerned with domestic job loss resulting from foreign competition. A June 2003 *Business Week* article entitled “American Legislators Are Accusing India of Stealing US Jobs”, illustrates a popular emphasis along these lines. Nonetheless, analysis of outsourcing evidently centers on proving or disproving the notion that free trade is a win-win situation. In fact, the first scholarly reaction to the new round of outsourcing surfaced in *The Journal of Economic Perspectives* and addressed whether or not this contention holds true in the current context of global capitalism. The

salience of the debate is demonstrated by the fact that economist Paul Samuelson, whose work in international trade theory earned him the Nobel Prize in 1970, reversed his position arguing that U.S. national income would be negatively affected if a country such as China or India achieved higher productivity in common exports.

Yet, economists have generally argued that during the first wave of outsourcing displaced blue collar job would be offset by creation of higher value added service jobs and cheaper goods. Underlying this logic is Joseph Schumpeter's idea that the continuous application of knowledge by entrepreneurs results in "creative destruction" whereby new markets, products, and therefore, jobs are created at the expense of one another. Specifically for the U.S., Daniel Bell (1973) emphasized the central importance of knowledge as a source of innovation when describing the shift from a labor intensive industrial economy to one based on information-driven services. Bell forecasted that a new dominant class would form the core of the post-industrial occupational structure, made up of professional, managerial, and technical workers (i.e. scientists and engineers).

Critics, however, have argued that this characterization misrepresents the new occupational structure. They argue that alongside the rise of well-paid knowledge workers, there is a proliferation of low-wage, unskilled, white collar and service occupations. Thus an increasingly polarized social structure may more accurately represent the occupational transformation Bell forecast (Bluestone and Harrison 1984; Sayer and Walker 1992).

Clearly, the lack of consensus and limited scholarship on the current wave of outsourcing calls for more research that thoroughly addresses these substantive issues,

especially questions concerning whether or not high skilled jobs are indeed moving overseas and whether this is good or bad for the U.S. economy.

While the focus on offshoring is a critical aspect of this thesis, this study also will explore whether or not the blue collar vs. white collar distinction is relevant to the type of work that is being outsourced offshore. That is, it may be the specific attributes of commodities or services that are important to determining what jobs get outsourced, rather than the blue collar vs. white collar distinction.

In particular, I will focus on whether the division between the conception and execution of a production process or service is a key feature of BPO. To this end, I will use Harry Braverman's theoretical framework in his seminal work, *Labor and Monopoly Capital* (1979) to examine this hypothesis. Braverman was one of the first analysts of the similarities between the process of deskilling of both blue collar and white collar work. He argued that management appropriates control from workers by deepening the division of labor, specifically the division between conception and execution. Braverman demonstrated this idea by showing how the application of Taylorist scientific management principles to both manual and white collar work impacted the autonomy and skill of craftworkers.

Braverman viewed the labor process and worker exploitation as the core of Marxist theory, and thus sought to extend Marx's analysis of manual labor to white-collar and service occupations. Using the example of clerical workers, Braverman argued that white-collar occupations are subjected to the same processes of control as manual workers. Thus, the outcome of applying the logic of scientific management to the office

results in managers, engineers, and technicians performing the mental aspects of work, while clerical workers are responsible for manual tasks such as keypunching.

However, Braverman penned his thesis before the intense period of globalization and technological change. Hence, this thesis will explore whether his deskilling argument maintains its relevancy today, particularly in regard to outsourcing. In turn, by exploring the contemporary relevance of Braverman's thesis to offshore outsourcing, this study will also provide a more sociological focus to current research on outsourcing. Beyond a small handful of panel discussions and conference roundtables, the outsourcing of white collar and service jobs has yet to provoke a substantial response in sociology. An editorial in *Contemporary Sociology* argues that "outsourcing is only one cause of job loss for U.S. workers" and "one of the latest innovations in corporate profit making" (Miller and Perucci 2004). Although sociologists have analyzed many of the conditions which have facilitated the emergence of outsourcing services, such as economic restructuring, globalization, and flexible production, they rarely have specifically addressed offshore outsourcing itself. Indeed the lack of sociological research on this topic is rather surprising, considering the impact outsourcing manufacturing has had on blue-collar manufacturing, as well as the implications the increased outsourcing of white collar office processes suggests for the organization of work in a global and information based society.

Because limited sociological research has been conducted on business process outsourcing, and because the trend in increased outsourcing shows little sign of diminishing, the objective of this study is to explore the impact of technology on the division of labor as exhibited by BPO. Drawing upon existing literature, informant

interviews, and data compiled from recent outsourcing studies, this paper addresses three basis research questions: (1) What is BPO? (2) Why and where is it happening? and (3) what are its consequences?

The study begins with a closer examination of BPO that draws upon the existing sociological literature on globalization and economic restructuring. BPO is compared to outsourcing manufacturing in light of the larger issue of the relationship between technology and the spatial location and division of labor. Next, theory is introduced as a framework for directing attention to the predominant features of the relationship between technology and labor control. This, in turn, may serve as basis for understanding more about the types of work processes being outsourced and why they may be more amenable to outsourcing. Following this section, methods are presented with a discussion of their advantages and disadvantages. This study employs an exploratory method that utilizes informant interviews, focus group, and secondary data to investigate the types of jobs outsourced and the effects of BPO on the division of labor. Following the presentation of methods, my analysis begins that examines what drives BPO, where it occurs, and its consequences. The study concludes with a discussion of the main findings and suggestions for policy and research.

LITERATURE REVIEW

The first appearance of the term outsourcing surfaced in a 1979 article in the *Journal of Royal Society of Arts* that references the use of German engineers by the British automobile industry: “We are so short of professional engineers in the motor industry that we are having to outsource design work to Germany”¹. This comment highlights the fact that the current wave of outsourcing is not the first instance in which skilled white collar labor from abroad has been integrated into the production process. While this and other examples (from the use of foreign scientists by high-tech companies to offshore call centers) indicate that the globalization of white collar work has been underway for a few decades, the predominant practice in offshore outsourcing until now has been concentrated in the production of goods.

Outsourcing occurs when a firm delegates the production of a good, component part, or performance of a service to another company. Automakers, for example, rely on thousands of suppliers to produce components from rearview mirrors to stereos that make up a car. Likewise, many firms outsource services such as advertising, building maintenance, or call center work. While companies may outsource domestically and internationally (commonly referred to as *offshoring*), the general goal of cost reduction has typically led companies to foreign countries abundant in cheap labor.

BPO represents the continuation of these trends in the service sector, though the extent to which outsourced business processes are relocated offshore remains unclear. What is evident, however, is that a substantially greater number of work processes can be

¹ Oxford English Dictionary: <http://dictionary.oed.com>

outsourced. This broader scope of outsourcing opportunities across the organization is one of the major distinctions between BPO and the outsourcing of manufacturing (McKinsey 2003). For example, while corporations such as Nike have in the past been able to conduct their entire production operations offshore, the business services that support their products have been performed domestically. What BPO now demonstrates is that an increasing number of these services can be performed abroad. The use of offshore call centers and data entry operations has foreshadowed this trend, but what is fundamentally different is that entire business processes can now be outsourced as opposed to individual functions such as payroll.

Furthermore, while the outsourcing of production primarily impacted low skilled workers, BPO can be applied to higher tiers on the organizational chart. At the lowest level of “back office” operations are basic data entry functions such as data conversion or transaction processing. Customer contact operations include consumer oriented call centers handling tasks such as collections, telemarketing, or credit card applications. On the level of corporate functions requiring more skills, a number of functions in IT services, finance and accounting, human resources, and supply chain management can also be outsourced. Further, a number of outsourcing vendors are increasingly targeting knowledge services and decision analysis, such as customer analysis, portfolio analysis, or credit underwriting. Finally, certain research and development operations such as engineering or design (i.e. architecture, automobile design, etc.), testing, and content development are possible to outsource.

BPO represents a continuation of technology driven restructuring in the wider transition from Fordist to flexible organization of production. What is unique about

outsourcing now is that it occurs in an increasingly information driven global economy in which the production of services can be moved more easily than any aspect of the production of goods. This implies that the division of labor that has traditionally been limited to low value added tasks such as data entry or billing can be extended to more professional work such as accounting or computer programming. To more fully investigate whether BPO is extending the division between conception and execution, it is useful to examine how this organizational strategy fits into the wider transition from Fordist to flexible organization of production. This shows how outsourcing has played a fundamental role in the transformation of work and allows similarities and differences between BPO and outsourcing manufacturing to emerge that demonstrate how the application of technology to the division of labor may be occurring differently in the current context.

Fordism to Flexible Production

The organization of all phases of automobile production at Henry Ford's River Rouge industrial complex symbolized the vertically integrated mass production system that defined the U.S. economy throughout the 20th century. Under this model, "corporations sought to control their economic environments by constructing massive, vertically integrated structures that essentially *internalized* strategic sources of raw materials, machinery, and labor power" (Vallas 1999:90). The Rouge complex accomplished this by locating all aspects of production from rolling steel and making glass to building engine blocks in one place. Fordism entailed a Taylorist labor process that mass produced standardized commodities in high volume through automation and mechanization. Another key element of Fordist production was the introduction of a

complex division of labor that divided the labor process into minute routinized tasks that required little need for craft skills. While this increased profits by lowering labor costs, it also decreased worker control over the design and pace of work. The displacement of craft production and the deskilling of labor resulted in the rise of unionization and collective bargaining that tied increases in wages to increases in productivity. Thus, the standard of living of the working class could rise despite intensified worker exploitation. This logic spread to other sectors of the economy as a new era emerged after WWII in which mass production combined with mass consumption allowed sustained economic growth until the 1960s.

The rigidity of Fordist production would ultimately be revealed during the 1970s by intensified globalization and technological change as more flexible methods of production challenged the logic of the vertically integrated organization. Increased competition from Western European economies and the development of just-in-time inventory and total quality management throughout Japanese automobile production significantly reduced the time necessary for production and assembly, and transformed competition through product differentiation and reduced price. The collapse of the postwar economic boom "forced corporations into a period of rationalization, restructuring, and intensification of labor control" to lower production costs (Harvey 1990:145). As corporations sought more flexible work regimes and labor contracts, strikes and labor disruptions revealed the conflict of interest between capital and the working class. According to David Harvey, the inability of corporations to overcome these obstacles led to what he calls a "flexible regime of accumulation:"

“It rests on flexibility with respect to labor processes, labor markets, products, and patterns of consumption. It is characterized by the emergence of entirely new sectors of production, new ways of providing financial services, new markets, and above all, *greatly intensified rates of technological and organizational innovation.*” (Harvey 1990:147). (italics added)

Offshore outsourcing of production became the predominant organizational innovation that utilized new technologies in a way that allowed corporations to cut labor costs and maintain profit margins in a period of stagnant growth by contracting with cheaper offshore labor. Thus, the shift from Fordism to flexible production involved the *externalization* of resources that had previously been maintained within the vertically integrated organization.

Offshore Outsourcing of Production

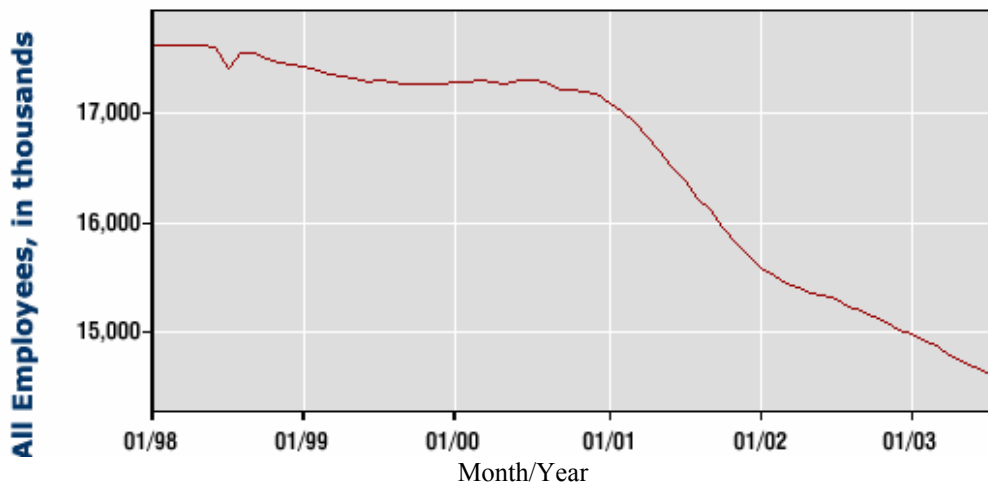
This shift to offshore production may be best understood in the context of global production networks, often referred to as commodity chains or global value chains (GVC) (Gereffi and Korzeniwicz 1994; Gereffi 2004). Hopkins and Wallerstein (1986:159) define the commodity chain as “a network of labor and production processes whose end result is a finished commodity.” GCCs or GVCs are useful frameworks for analysis of offshore outsourcing of services as they capture the spatial and organizational features of dispersed economic activity. According to world systems theory (Wallerstein 1974), countries are incorporated into a hierarchy of core, semiperipheral and peripheral levels unified by a single division of labor within one world market. The establishment of the world capitalist system created an international division of labor in which different geographic areas specialize in specific occupational tasks. The movement of goods through this system follows raw materials extraction and labor intensive production in peripheral areas to capital intensive, higher-skilled labor in core states.

Companies in the US first began outsourcing to GVCs during the 1960s and 1970s, primarily the production of consumer electronics and apparel (Gereffi 2004). Technological improvements in transportation and communication and the elimination of trade barriers such as tariffs and import quotas created an interconnected global market that facilitated this first wave of outsourcing. Satellite communication, airplanes, and containerization brought far away distances closer together while increasing the potential to separate production and consumption. Harvey argues that the use of these technologies has resulted in the acceleration of economic processes and the shrinking experience of space, or “time-space compression”:

“...the time horizons of both private and public decision-making have shrunk, while satellite communication and declining transport costs have made it increasingly possible to spread those decisions immediately over an ever wider and variegated space.” (1990:47)

This increased reach allowed companies to take advantage of abundant low-cost labor and raw materials in developing countries in addition to establishing new product markets. Lower cost labor, “business friendly” environments, and a fluid supply chain increased the reliance on foreign producers of intermediate inputs and entire products. Between 1987 and 1997, foreign inputs used in US manufacturing goods increased from 10.5% to 16.2%, while foreign inputs in high-tech manufacturing, such as computers and electronics, increased to 38% from 26% (Bardhan and Kroll 2003). The movement of blue-collar work from the US to Mexico, Southeast Asia, and elsewhere directly impacted manufacturing jobs in specific industrial sectors. More than 3 million jobs in manufacturing have been lost since employment last peaked in 1998 (see Figure 1).

Figure 1: U.S. Employment in Manufacturing 1998 - 2003



Source: Bureau of Labor Statistics/AFL-CIO

The offshore production of consumer electronics, apparel, and automobiles demonstrates how the distribution of economic functions across space depends upon the nature of a firm's product and how it is produced. Consumer electronics, a highly globalized industry, utilizes small, lightweight, standardized components that are easy to ship. Thus, cost effective transportation and communication technologies allow companies in advanced industrialized nations to relocate labor intensive production processes to peripheral countries in the GVC. US reliance on subcontractors in Taiwan, South Korea, and Singapore for provision of components and basic manufacturing, and the growth of extensive production networks between US affiliates and local manufacturers created an extensive supply chain of consumer electronics goods from subassemblies to complete electronics products. Global contract manufacturers such as Flextronics, Solectron, and Celestica represent the pinnacle of the outsourcing trend in manufacturing, having built their business on the outsourcing of electronics manufacturing for US firms (Sturgeon 2002). The scale and scope of their operations

offered through bundles of standardized value chain activities and their global presence demonstrates how the electronics industry has vertically disintegrated as global suppliers provide manufacturing while domestically firms focus on R&D and marketing

Likewise, the lightweight nature of apparel facilitates cost-effective shipping and the relocation of production to lower cost areas in the GVC. Patterns of apparel trade in the GVC are also shaped by industry sector and regulation. The fast nature of trends in high fashion retail results in a higher value on speed to market than is necessary in basic apparel items (e.g. underwear and socks). Thus, some production processes will stay close to or remain within product markets that change rapidly while more basic commodities are outsourced offshore to where they can be produced cheapest. The extensive global sourcing network for apparel has until 2005 been regulated by quotas and import restrictions of the Multifiber Arrangement (MFA) that protects textile producers in over 30 developing nations. The phasing out of the MFA will force out many smaller producers in developing nations and further undermine apparel jobs in the U.S. while concentrating apparel production in China, Mexico, and India.

While consumer electronics and apparel illustrate the basic spatial features of outsourcing production, it is useful to revisit the example of automobile production to add scope to the extent to which these dimensions have changed since production of the Model T. Richard Hill's (1989) analysis of the automobile industry in the USA and Japan demonstrates the complexity of the organization of automobile production across space and the extent to which the organization of work has been transformed since centralized production at the Rouge River. The transnational production system of the automobile links parent companies, subsidiaries, and subcontractors of various sizes and social

locations by using technology to integrate various tiers (layers) of production and assembly processes across the globe. While auto makers specialize in engine and final assembly, the remainder of production is organized spatially across specialized tiers arranged according to their value-added and transactional distance to the parent company. Thus, parent companies such as Toyota and Nissan maintain greater control over high value-added processes organized and located in a concentrated core that culminates in final-assembly. Tiered specialization resembled Fordist production but mostly metaphorically, as the symbol of the conveyor belt was extended from a “system of factory production within plants to a regional production system tying together assembly plants and suppliers” (468).

The division of labor that once existed within the factory has taken on a geographical dimension as technology has reduced spatial and temporal barriers to relocation, which results in increased distance between conception and execution based on the value-added nature of the production process. In manufacturing this has meant that repetitive, lower skilled, lower value-added jobs have been relocated offshore while higher value-added jobs closer to the conception of work continue to be performed domestically. However, relocation of production of material objects to low-cost labor zones still requires physical movement through space despite the ability of technology to accelerate this process. When the nature of the labor process shifts to the performance of services that increasingly involve information or knowledge, the spatial features of the application of technology to the division of labor must be reconsidered.

The Emergence of Outsourcing Service Work

The transition to flexible organization sent the production of goods offshore, but the outsourcing of services previously amassed within vertically integrated organizations was until recently primarily a domestic affair. This is directly related to the speed at which information and communication technologies have evolved and been integrated into business processes. In fact, the earliest instances of outsourcing service work were not motivated by the goal of labor cost reductions but instead were enacted to take advantage of new computer technologies. While this has remained true to some extent today, as computer and information technologies standardize an increasing number of services or tasks, outsourcing of white collar service sector work has slowly followed the pattern of outsourcing production.

Outsourcing of services began over 50 years ago as mainframe computers were increasingly used by companies to support business processes such as payroll. During the 1950s, Automatic Data Processing (ADP) employees received payroll information over the phone from other businesses which keypunch operators then typed onto cards and fed into a mainframe computer system. Similarly, Electronic Data Systems (EDS) got started during the 1960s with a contract with Frito-Lay in which EDS assumed responsibility for their technology assets. It was in response to creation of Medicare and Medicaid (Social Security Act of 1965) that EDS became the first IT company to organize by industry, focusing on insurance health claims processing with initial contracts in Texas, Kansas, and California. The ability to process information rapidly and its application to business processes quickly spread to other industries. In the financial services industry, IT outsourcing got underway during the 1970s and 1980s when financial institutions began to utilize outside firms to run their information systems

(at the time this was often referred to as “facilities management”). During the late 1980s, U.S. banks began outsourcing data processing to technology service providers such as ADP and EDS as a way to manage the high costs and uncertainty of a rapidly changing IT infrastructure.

The advances in telecommunications that permit offshore outsourcing of production during the 1970s also facilitated the first instances of offshoring of services, though it was not until the mid-1990s that this trend got underway as jobs in claims processing, call center, and basic software coding went to countries such as India, Canada, and Ireland. These services have thus far followed the trend in manufacturing in that the majority of work moved offshore has been labor intensive, repetitive task-oriented, and motivated by the drive to reduce costs and capital expenditures while focusing on core competencies. The assembly-line worker and the data entry keyer both demonstrate how principles of scientific management can be applied to the production of goods and the performance of services. Each follows a series of routine tasks in a confined space that can be reduced to a set of instructions. However, the fundamental difference between manufacturing and services outsourcing now is that information has replaced material goods as the object to be manipulated (Castells 2000). This is a critical distinction because of the central role of data in business processes. While data has always supported business operations, the development of sophisticated information technologies and the ability to electronically capture data previously recorded on paper has transformed its role and facilitated almost instantaneous information flows.

In the same manner that falling transport and communications costs enabled global expansion and coordination of production activities throughout the 20th century, a

growing global IT infrastructure has rapidly increased the ease with which service operations can be coordinated across the globe. If offshore outsourcing of production was triggered by the reduction of spatial barriers to low cost and regulation free production zones in the developing world, then business process outsourcing is triggered by the *collapse* of time and space as boundaries to global information flows. Global diffusion of high powered computers and the internet circumvent distance as email, instant-messaging, faxes, and videoconferences facilitate the exchange of data across national and organizational boundaries. Between 2000 and 2003 alone, the cost per minute of a phone call between India and the US decreased by 80 percent.² Furthermore, improvements in telecommunications bandwidth, namely advances in routing and switching technologies, have rapidly increased the cost-effectiveness of data transmission in addition to enhancing the quality and reliability of communication. Finally, universal network protocols have improved the ability of systems to communicate with one another through standardization of business applications such as SAP, Oracle and Peoplesoft. These packages are examples of enterprise resource planning (ERP) software, one of the critical technologies underlying business process outsourcing. In effect, ERP takes IT supported business processes of different departments and integrates them into one software package.

From this vantage point, we have a retrospective view of the process Braverman first described amongst clerical workers. The global and information based economy facilitates both the division and spatial reorganization of discrete office processes such as dividing the opening of envelopes and data entry from the actual use or application of such data. Applying factory logic to such tasks drives down costs through economies of

² The Economist, "Relocating the Back Office," December 13, 2003

scale, but the ability to relocate them to lower cost labor areas and the development of new technologies such as optical scanners that digitize paper processes rationalizes them further by reducing and relocating human intervention. It was only recently that the convergence of such technologies would grant management the ability to automate and offshore many paper processes.

This brings to the fore a critical implication concerning the application of computer and telecommunication technology to the division of labor: In an economy driven by the performance of services that involve information and knowledge, aspects of the labor process may be divided and relocated much easier than aspects of the production of goods. If the application of these technologies to the production of goods resulted in spatial and organizational relocation and frequently the deskilling of blue collar and increased the divide between core and peripheral workers, what happens when this logic is applied to the division of labor in professional jobs?

THEORY

The current round of outsourcing can be viewed as the latest advance of the division of labor. Smith (1776) made the first major attempt to demonstrate the potential of a complex division of labor using the example of an English pin factory, describing how task specialization in the production process (i.e. cutting and straightening of wire, the sharpening of tip, grinding the head, etc.) achieves significant labor productivity gains through the reduction of the time passing from one activity to another and improvement through focus on a single function. Extending the logic of the division of labor from the factory to the nation, Smith was optimistic about the societal benefits of a complex division of labor, viewing it as a mechanism to facilitate higher standards of living. However, he also noted that the emerging industrial mode of production led to the erosion of artisan skills through the coordination of several workers performing specific simplified tasks.

Ricardo applied this logic to international trade in his proposition that countries can increase their standard of living through specialization and trade. According to Ricardo (1817), each country “distributes labor most effectively and most economically: while increasing the general mass of productions, it diffuses general benefits, and binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilized world”. Ricardo’s model of comparative advantage, the underlying rationale of free trade, claims that even when one nation can produce goods more efficiently than other countries, concentrating production in the good in which it maintains the highest relative advantage and importing the rest permits mutually beneficial trade or a win-win outcome for involved countries. Countries gain when the cost and price received for their traded product is better abroad than domestically.

Marx distinguishes between division of labor in society and the factory. Societal division of labor is the result of physiological differences such as sex or age, while the division of labor in production is considered the cardinal aspect of capitalism. Marx (1978) did not share the same optimism of the division of labor as Smith and Ricardo, maintaining that "as the division of labor increases, labor is simplified. The special skill of the worker becomes worthless. He becomes transformed into a simple, monotonous productive force that does not have to use intense bodily or intellectual faculties. His labor becomes a labor anybody can perform." (1978: 214) The Marxist critique of work degradation argues that capitalists exploit the division of labor to reduce labor to the lowest possible denominator. Marx refutes the inevitability that Smith attributed to the division of labor, using the distinction between society and the factory to emphasize the contingency of capitalism.

Braverman extended the Marxist critique of work degradation in his seminal *Labor and Monopoly Capital*, arguing that the organization of work under capitalism rests heavily upon the application of Taylorist principles of scientific management - deskilling, and separating the conception and execution of work. Capitalists achieve this, according to Braverman, through managerial control over "each step of the labor process and its mode of execution" (1974:119) by monopolizing the planning process in production. Braverman illustrates how occupations are deskilled and routinized through automation and mechanization. Skills and decision making processes are removed from the worker and reconstituted by capitalist driven technologies and procedures of production. Rationalization of work processes into simplified tasks dissolves independent craft skills and lowers the wage bill for management by reducing the skills necessary to perform these constituent tasks.

Critics have questioned Braverman's thesis along a number of issues. Some authors criticize Braverman's conception of skill, arguing that it is too heavily based in a manual labor context and is therefore not applicable to the service economy. Feminist critics contend that his analysis is based on male notions of skill and ignores female skills or work in the home which is very unspecified (see Beechey 1982). Littler (1982) claims that Braverman "romanticized" craftwork, arguing that even before scientific management, craftworkers were subject to different means of control by employers and were not entirely autonomous. Similarly, some critics have argued that while scientific management fundamentally transformed work during the 20th century, it is only one strategy of controlling labor. Piore and Sabel (1984) for example, argue that new forms of work organization that allegedly empower workers have replaced scientific management techniques.

The most contested issue in the body of labor process research generated by Braverman is his description of the long-term trend in capitalism towards the rationalization and simplification of work. Critics contend that Braverman's theory of work degradation ignores the persistence of craftwork and underestimates the ability of these workers to resist managerial control. Some critics argue that there exists no clear trend towards deskilling. In his criticism of the Braverman thesis, Attewell (1987) claimed that no empirical evidence exists to support the "notion that deskilling is the dominant tendency across the whole economy" (325). Studying the effects of computerization and automation in three British paper mills, Penn and Scattergood (1985) found that "technical change did generate positive effects on skill but not much in the way of deskilling" (625). Other theorists contend that the emergence of white-collar service work and new technologies would result in "upskilling". Hirschhorn (1984:163)

for example, argued that post-industrial skill would demand worker involvement in “the process of active learning, direct intervention in the machine system, and progressive widening of their knowledge” (p. 163). Finally, in a thesis that attempts to resolve the dispute between Bell and Braverman, Zuboff (1988) acknowledges that while the profit motive continues to drive organizational structure and management, the “computer mediated” workplace will require the abandonment of centralized hierarchical structures and the implementation of more participatory workplaces.

Alternatively, research from other social scientists has supported the Braverman thesis. Studying the impact of IT on computer programming, Kraft (1979) found that “programming has experienced a steady process of fragmentation and routinization while programmers as a group have experienced rapid deskilling” (14). Aronowitz and Defazio (1994) also concluded that the increasing sophistication of computer software threatens an increasing number of white collar workers:

“each generation of technological change makes some work more complex and interesting and raises the level of training or qualification required by a (diminishing) fraction of intellectual and manual labor, for the overwhelming majority of workers, this process simplifies tasks or eliminates them...” (20)

Shaiken (1985) argues that while the introduction of technology does not necessarily degrade work, it significantly increases the ability of management to monitor and control the work process. One of the potential effects of increased managerial control, according to Shaiken, is the ability to relocate production abroad: “If an unexpected labor dispute holds up tooling scheduled to be built say in Germany, the jobs can be completed in England or Spain by transmitting all the relevant data to numerically controlled machines in those countries” (55). The increased control of the labor process that technology allows management facilitates relocation of work, as Shaiken points out. While the degradation of work may not be a universal outcome of the implementation of

technology, that companies are currently capable dividing higher skilled tasks or entire work processes and relocating them to where they can be performed cheaper supports the continued relevancy of Braverman's thesis. Furthermore, the division of mental and manual labor Braverman described within the office and factory is now accompanied by the ability of management to place geographic distance between conception and execution.

Greenbaum (1999) argues that despite the global, technological, and economic changes that have occurred since Braverman wrote, the tendency of management to control and coordinate the labor process remains pervasive in the information economy. Her central thesis is that control and coordination of labor are increasingly embedded in software and the internet, not as the result of some concealed technological force but through the development of information and communication systems that reinforce managerial control across space:

“Not only the predictability, control, and cost of these information systems support new divisions of labor, management's change in technical design principles has shifted from an emphasis on automation – a hallmark period when rationalization was the dominant strategy – to design principles of “coordination and communication,” which foster faster changes in labor process management.” (Greenbaum 1999:80)

Greenbaum emphasizes that managerial control of the labor process has been incorporated in the design of information technologies according to the need to conduct business operations across greater geographic distances. IT-enabled outsourcing of business processes indicates a greater capacity to divide higher value added and high skilled work and relocate them where they can be performed cheaper. This suggests that IT can be used to divide tasks in such a way that strengthens the divide between conception and execution among higher skilled ranks of professionals and subsequently

that increases geographic distance between workers who control the planning and design of work and those who perform the services in question.

METHODOLOGY

While this study asserts that the traditional division between conception and execution is strengthened by BPO and extended to include higher skilled and professional occupations, it is not the primary objective to confirm this assertion. This hypothesis is used to explore data and to elaborate theoretical issues, rather than an empirical test of proof. In order to assess these issues, this paper draws upon an exploratory qualitative methodology. John Creswell (2003:30) notes that qualitative studies are often conducted because the topic is exploratory: “This means that not much has been written about the topic...and the researcher seeks to listen to participants and build an understanding based on their ideas.” According to Babbie, exploratory research is often conducted “for the purpose of exploring a topic to familiarize the researcher and his subsequent audiences with it. This would be the case especially when the researcher is just beginning his studies of a given topic or when the topic itself is new” (Babbie 1975: 49-50). To a great extent, both of these claims hold true in the context of this study. Not only does this thesis represent my first sociological research endeavor, but BPO itself is an emergent phenomenon that has not yet been extensively studied. Thus, one of the obstacles I initially faced was the lack of an established sociological literature on BPO or the outsourcing of services in general to guide my research.

Furthermore, while it seems clear that offshore outsourcing is becoming more pervasive in white collar occupations, measuring the extent to which BPO is occurring and its consequences is difficult to determine for a few reasons. First, government data do not measure the global mobility of service processes in the same way that the flow of goods across national boundaries can be accounted for. Data collected by the U.S. Department of Commerce do shed light on some offshoring practices, though the picture

that emerges is incomplete. This is the result of both methodological shortcomings of existing data collection and the fact that BPO is an emergent trend. Thus, I eliminated the possibility of a quantitative approach during the early stages of planning my research. Second, the politically unpopular nature of offshoring implies that some qualified informants could potentially be reluctant to discuss the topic. I found this to be true throughout my research. The majority of individuals I attempted to include (business executives at outsourcing vendors or firms engaged in such contracts) for interviews declined or never responded. The final challenge I faced in this study resulted from the fact that BPO is an emergent global phenomenon that is challenging to research within the time and financial framework of a masters thesis. There were two primary obstacles in this respect. First, some studies cited in news articles on outsourcing were in fact research reports conducted by consulting firms with the purpose of sales. Second, the lack of corporate activity in New Orleans practically eliminated local research opportunities.

However, a bit of coincidence and luck aided my ability to surpass this latter obstacle. Throughout my graduate studies I have worked as a server in a fine dining restaurant frequented by business executives and other professionals. To my good fortune, I discovered that a table I was serving one evening consisted of managers from Science Application International Company (SAIC) whose local team provides IT outsourcing services for Entergy, a New Orleans based utility company (the only Fortune 500 firm in Louisiana). I later approached the host of the table and explained my interest in using the SAIC-Entergy contract as the focus of a case study of the emerging trend in outsourcing services. SAIC was willing to participate in my research, though they did

not grant me sufficient access necessary to reach the depth of detail of a case study (e.g. company documents, specific job reduction numbers).

For these reasons, I found it necessary to employ an exploratory qualitative methodology. Studies of this nature can be formal or informal, relying on secondary data, literature review, or casual discussions with informants or more formal research approaches that involve in-depth interviews, focus groups, or case studies. This study brings together both aspects, utilizing a focus group, in-depth informant interviews, and a review of secondary research to direct and verify key arguments. Morgan (1997) argues that focus groups are especially useful in exploratory research “when the basic issues are poorly understood or existing knowledge is based on researcher-imposed agendas” (40). While this is consistent with my study of BPO, the main reason I utilized a focus group was because SAIC was only able to allot me limited time. Thus, a focus group provided the opportunity to gather information from a number of individuals at once. Prior to meeting I studied the SAIC website and searched the Lexus Nexis Database for articles to establish a base knowledge of the company and some initial questions. The group I met with consisted of the offshore coordinator, a service delivery manager, and two software engineers. I opened the meeting with a brief presentation of the nature of my study and discussed my existing knowledge of outsourcing. This was followed by a group discussion which lasted approximately one hour. Because this was my initial attempt at gathering data and I was somewhat uncertain about what questions to ask, I employed a less-structured approach and to allowed participants to talk openly about their views and their work. The meeting concluded with a presentation by the offshore coordinator that described the range of services offered by SAIC. I took notes and recorded our discussion so that I could later transcribe the meeting for analysis.

The focus group became a source of preliminary data that I also used to generate questions for future interviews, one of which was a follow up interview with a service delivery manager³ who oversees local projects and works with teams in SAIC United Kingdom and SAIC India. Beyond New Orleans, I searched websites of outsourcing consultants, companies known to outsource, and interest groups in search of participants to interview. Potential informants received an email that described my study and their proposed role in it. Four telephone interviews were conducted with individuals uniquely situated to illuminate the emergence of business process outsourcing. Two informants are chief executive officers (CEOs) of US companies with global operations who have pioneered different avenues: one an outsourcing vendor that has offered data and programming outsourcing since 1990, and the other the first outplacement company in the US (a career transition consultant). One informant is president of a major trade association that has lobbied for the information technology industry since 1961. An interview was also conducted with a marketing representative of one of the three largest outsourcing vendors in India. Each of these interviews was conducted over the telephone and lasted between 40 and 60 minutes. Following Hermanowicz (2002), I read verbatim an introduction during each telephone interview that again described the study and their role in it. This was an effective way of moving quickly from greeting pleasantries to focusing on the interview. The interviews included circumstantial questions to establish background information, and a basic set of questions that I followed in an open-ended fashion. Prior to each interview I studied background information on the organizations

³ This individual was my original contact at SAIC and was not present at the focus group.

each individual was associated with. All interviews were recorded and later transcribed for analysis.

A literature review of research that has attempted to quantify the outsourcing phenomenon serves as a supplementary source of data for this study. The literature review is often introduced at the beginning of a study to frame the research problem or advance a hypothesis, though in qualitative research it can be presented at the end, “where it is used to compare and contrast with the results (or themes or categories) that emerged from the study” (Creswell 2003, p31). I placed the literature review at the end of my analysis for this reason but also because I felt the existing data on outsourcing services are tentative at best. The impact of outsourcing in the service sector is difficult to extract from other sources of employment variation. Furthermore, as noted above, current governmental data collection is incapable of accurately measuring these trends.

These data collection methods are used together in the following section to empirically investigate where BPO occurs, why it happens, and its potential consequences. Two other purposes for the exploratory research method described by Babbie (1975:50) are “to test the feasibility of undertaking a more careful study, and to develop the methods to be employed in a more careful study.” Through the following analysis, I will formulate propositions that can be investigated in future research and their implications for social policy.

ANALYSIS

Will the capabilities of new technologies lead to a deskilling process among higher skilled white collar service workers similar to the deskilling of blue collar labor during the first round of outsourcing production? The answer to this question is elusive at this early stage of BPO, though a closer look at why BPO occurs points to signs that suggest there is credence to the argument that it will. The first of which is the basic nature of competition in a globalized marketplace. Global competition and market volatility intensify pressure on companies to remain competitive and profitable. Outsourcing provides an operating model in which companies pursue the most advantageous cost structure that can mitigate market uncertainty. Ron Edwards, a sales consultant for Wipro, one of the three largest Indian outsourcing companies, says this:

“One of the forces is just the intense, competitive nature of our marketplace, quarter to quarter pressure on earnings and stock. Our market, which I think is the real growth engine for this globalization in general, has forced all kinds of sectors - manufacturing, health care, life sciences, IT companies, literally almost every sector, energy companies, to drive out costs and gain efficiencies. That’s what offshoring is all about, putting a lot of energy into IT infrastructure around efficiency, and the labor arbitrage to drive costs down.” (Interview 1)

Mr. Edward’s concluding remark about offshoring utilizing IT infrastructure and labor arbitrage to drive down costs captures the basis of outsourcing - the use of technology to draw from a larger global labor pool and reap the benefits of cheaper labor costs.

However, one must revisit the distinction between outsourcing and offshoring here as outsourcing offers cost reductions even without going abroad. Simply outsourcing to an external provider allows companies to shift from fixed labor costs to a variable rate through the contract. According to John Challenger, CEO of the outplacement firm Challenger, Gray, and Christmas:

“One of the forces that drives outsourcing is that it’s much easier to ratchet your business up and down, you know, tie your payroll, your people costs, to the actual levels of your business.

Businesses go in cycles, and having easier mechanisms to keep your workforce just in time is one of the driving forces behind the outsourcing...One of the advantages of contracting it out is you can just cut the contract.” (Interview 2)

The delegation of work to a contractor creates a contingent labor force at arm’s length that can be used according to demand. This provides a reserve of workers who can be augmented when business intensifies or downsized when the market is slow. Cost savings are achieved because companies no longer have to recruit, manage, or maintain employees internally.

This, however, parallels the offshoring of production with the exception that aspects of information driven services can be more easily divided and relocated than the production of things. The significance of this is the implication that higher value added services can also be outsourced. A greater cost savings incentive exists among skilled occupations because these workers are more expensive to maintain. A comment by Harris Miller, president of the Information Technology Association of America (ITAA) underscores this fact:

“There is much more pressure on users of information technology to cut costs. The cost of hardware has come down, the cost of software has come down, but IT services have not come down. And you’re not going to cut the rates of most U.S. IT workers so it gives the opportunity for some work to be done outside the U.S.” (Interview 2)

While the degree to which IT workers are affected by the use of offshore labor is somewhat unclear, what is evident is the increased incentive to offshore among these occupations. This is most clearly demonstrated by the disparity in pay between U.S. and foreign IT workers. As Table 1 shows, computer programmers in the US are much more expensive than their foreign counterparts. This partially explains why so much of the work that has migrated thus far has been concentrated in IT related occupations.

Table 1: Average Salaries of Computer Programmers (U.S. Dollars)

Country	Salary Range
India	\$4,800-8,000
Philippines	\$5,880-11,000
Malaysia	\$7,200
Russian Federation	\$5,000-7,500
China	\$8,952
Canada	\$28,174
Ireland	\$23,000-34,000
Israel	\$15,000-38,000
United States	\$60,000-80,000

Sources: *CIO Magazine*, November 2002; Smart Access Survey, Merrill Lynch as reported in Bardhan and Kroll (2003)

While the difference in computer programmer salaries demonstrates one reason why this category has been significantly affected by outsourcing, wage differentials in other jobs show that the cost savings incentive is shared across a broad spectrum of work. Table 2 compares U.S. and Indian hourly wages in service occupations considered threatened by offshoring.

Table 2: Hourly Wages for Selected Occupations, US and India 2002/2003

Occupation	Hourly Wage, US	Hourly Wage, India
Telephone Operator	\$12.57	< \$1.00
Medical Transcriptionist	\$13.17	\$1.50-2.00
Payroll Clerk	\$15.17	\$1.50-2.00
Legal Assistant	\$17.86	\$6.00-8.00
Accountant	\$23.35	\$6.00-15.00
Financial Researcher/Analyst	\$33.00-35.00	\$6.00-15.00

Source: Bardhan and Kroll 2003

Although some of the categories such as telephone operators and payroll clerks have commonly been relocated offshore, higher skilled jobs in accounting and financial analysis appear equally vulnerable by comparison of wage. Both the low-cost of living and the sheer abundance of foreign labor influence these contrasts, but the lack of other cost drivers such as employee health insurance and pension funds creates an even more favorable business climate.

It would be incorrect to assume that wage differentials alone explain why or what jobs may be relocated offshore. The rising tide of skilled jobs moving offshore is also encouraged by the increasing number of highly skilled workers in the global labor pool.

Again, Ron Edwards very succinctly makes the business case:

“India is cranking out advanced degree people who speak reasonably good English and in some cases very good English to do lots of things. You know, politicians and everybody harp like, gosh, it’s a terrible trend and why are we sending all these jobs offshore. One of the reasons is that we can’t produce them to the extent or quality that the Indian firms have. It’s a free market right? So people are going to go where this stuff’s available for the right price.” (Interview 1)

This supports a common claim by proponents in the outsourcing debate that companies are currently looking offshore because of shortage of skilled workers in certain math and science related occupations. Many countries such as Russia have long traditions of expertise in math and engineering, but rapid growth in higher education trends in India and China and other emergent economies have created large concentrations of workers with skills in a wider variety of areas such as IT, engineering, mathematics, accounting, and law. China, for example, produced science and engineering doctorates at an average annual growth rate of 36.5 percent between 1989 and 1999, while engineering graduates represented 44.3 percent of undergraduate degrees in 1999 (NSF 2002). Thus, the greater availability of a less-expensive but highly skilled labor may further accelerate the number and range of job migration.

The explanation of why BPO occurs primarily involves the consideration of cost and the possibilities of technology. Computer technologies facilitate an increased number of services to be divided and relocated to domestic or foreign outsourcing companies. Doing so allows firms to focus on core competencies and reduce labor costs through outsourcing contracts. This is encouraged by the availability of skilled and often highly skilled workers in foreign countries where their labor is cheaper and suggests a

new spatial distribution of work in which jobs that have typically been closer to the design of work are relocated abroad. However, this process is not simply an outcome of technological determinism but is instead an organizational process that involves individuals, politics, and culture.

It is useful, therefore, to consider the example of the IT outsourcing contract between Entergy and SAIC to reveal more about how this process unfolds. The \$400 million, five-year contract began in 1999 and outsourced Entergy's IT application development and maintenance, data center management and operations, desktop support services, and infrastructure management. According to Entergy CEO Wayne Leonard:

“No company can expect to be premier in all aspects of the value chain, particularly in an area like information technology where the change is exponential. This alliance allows us to achieve the benefits of scale and specialization without adding physical mass or making substantial financial investments...SAIC's unique system of employee ownership will provide greater opportunities for IT employees.”⁴

Entergy's 900-person IT staff was given the option of staying at Entergy or working for SAIC on the project. Transitioning staff is mutually beneficial for both companies. Entergy is relieved of expensive labor costs, while SAIC benefits from the proprietary knowledge transitioned employees maintain about existing information utilities.

The practice of IT outsourcing falls into two principal areas: infrastructure and applications management. Information infrastructure refers to the portfolio of hardware and software applications that underlie business processes or transactions, while applications management refers the software platforms that support a business process. SAIC performs these services on a single integrated global model, bringing skills of different employees from locations in the U.S., India, and the United Kingdom to manage Entergy's IT infrastructure. The majority of services are performed on-site while some

⁴ “Entergy and SAIC Sign \$400 Million Information Technology Services Agreement”. *Newswire* August 31, 1999

aspects are sent to offshore facilities. Only recently did SAIC establish captive operations in India, hiring about 200 employees to serve its clients (including Entergy). According to Jason Miller, SAIC service delivery manager, how outsourcing contracts are organized depends on the corporate philosophy of the client:

JM: One of the things that works well for us is that we avoid staff displacement. So we generally acquire most of the IT staff of our clients as SAIC employees to ease the transition. We don't just come in and gut your IT, though we have done it before.

DJ: What would be a reason why you would take that approach?

JM: That decision depends on the client. If they want to get rid of their IT staff than obviously we're going to do it. But normally our experience in the utility industry has been to take on employees. (Interview 5)

The corporate philosophy of individual clients to a large extent determines how outsourcing is organized. In the case of Entergy, it is evidently a combination of the value they place on employees and risk. According to Nitin Mehra, offshore coordinator:

We [SAIC and Entergy] operate as an integrated team. We manage the work that goes offshore, and we transfer the cost savings to Entergy. Risk is tremendously lower than if you were to directly give it to an offshore company. Our costs are higher, but our risks are lower. Many clients don't want to take that risk." (Focus Group)

Companies can encounter a number of risks through overseas operations. One general risk results from unforeseen business expenses such as software licenses or travel expenses. The stability of a country's legal and contract enforcement system and its physical infrastructure are other potential sources of risk. Even in Bangalore, the heart of the BPO market, the roads and energy system have led several companies to build self sufficient campuses. Finally, cultural differences may pose a risk.

A number of outsourcing contracts have failed as a result of cultural differences between consumers and foreign customer service representatives. Both Dell Inc. and Delta Airlines have brought certain call center operations back to the US as a result of customer criticism. Shop Direct Group Ltd., a British company, has also pulled back

operations as a result of consumer dissatisfaction. Most media attention has pointed to heavy foreign accents as the source of backlash, but one report (McCracken 2004) suggests it may also be the result of a “Buy American” mentality. According to the study, 65% of respondents indicated they would likely discontinue or decrease their interaction with a company who utilizes overseas call centers, 48% of which cited nationalism as the underlying reason.

The politically unpopular nature of outsourcing may therefore make some companies reluctant to implement the strategy. This highlights how politics influences the application of technology to the organization of work. Harris Miller says that:

“Companies are always going to be looking for ways to increase productivity and cut costs, as long as they are not at the same time alienating their customers and producing a lower quality product” (Interview 4).

The Dell and Delta examples are customer-facing business processes, whereas most offshore BPO services are conducted between firms and service providers such as Entergy and SAIC. Nevertheless, businesses are not immune to the political unpopularity of outsourcing due to the threat of job elimination. How companies mitigate political risk depends on corporate culture or philosophy. Not only did this theme surface in my research of SAIC, but also in two other interviews:

DJ: Once a company has made the decision to outsource, what then determines the work that will go offshore?

WR: Well, it’s a corporate philosophy, number one, and then number two it has to do with how much leeway companies give their operational managers. (Interview 3)

DJ: If the capability is there, the technology is there, and only negligible business risk, why aren’t companies in the utilities industry pursuing BPO more rapidly?

RE: It’s really kind of a mix between politics and philosophy. Each of these utilities tend to be regulated by local jurisdictions, either at the city or state level, and there is so much pressure to not do anything offshore, that really it’s hard for them to do. So each company has to decide what to their approach will be. They almost have to do it in the background without getting caught.” (Interview 1)

The Entergy-SAIC contract reflects an approach to outsourcing in which the majority of jobs have been preserved by the transition. One of the business benefits of transitioning employees from client to vendor is future deployment of employee expertise. The use of the integrated model allows subject matter experts (SMEs) to work on different projects, regardless of where they are based. Thus, SAIC benefits from transitioning employees from Entergy through the establishment of expertise that SAIC can transfer to other clients and future accounts. As Jason Miller, the service delivery manager says,

“I’m an SME (Subject Matter Expert) of web technologies, so I’ve dealt with the dot.net environments and service oriented architectures. I’ve helped build out service oriented architecture within Entergy, but I utilized my knowledge from British Petroleum, in doing it over there. So what we did when Entergy began to outsource, and this is the beauty of this - is we brought people in from over who have done it within verticals. They’ve dealt with the energy market, large power buildings, these industries. We gain knowledge from these SMEs.

We can float people between accounts. I work on BP, Marathon, and I’ve worked with SAIC India with Marathon, and for Entergy. And floated back and forth between all these accounts, I know what goes on, what works, I know this vertical. That is the true bang for your buck in an outsourcing deal. (Interview 5)

Miller’s narrative describes how his unique knowledge of computer technologies can be applied to a number of similar clients in the utilities industry. Likewise, the employees who transitioned from Entergy can float between different clients as SAIC employees. This is an important attribute of current outsourcing practices. This represents a positive outcome for both companies who can take advantage of new talent on future accounts, and workers as it does not disrupt employment, although one must wonder how long an outsourcing vendor such as SAIC could continue to absorb employees. When asked about staff reduction Mehra explained that:

“In outsourcing, each year you typically give the client a cost savings, because in theory you get more efficient, your doing work in which you specialize in, the client themselves don’t focus on IT, they have a business to run.” (Focus Group)

Service providers such as SAIC take advantage of concentrated expertise in industry-specific “best of breed” practices to improve the operations of similar clients. Additional cost savings are delivered to Entergy through the use of offshore labor. How the work is divided between geographic locations is also shaped by both corporate culture and the level of skill necessary. Mehra adds:

“We use skills from different locations in a single environment. We base our model here so that all the *domain knowledge* will be retained at the on-site location. The *technical expertise* is the part we are going to offshore to a large extent. You need consulting and other help on site that you can’t expect to get from separate locations. (Focus Group) (Italics added)

Mehra’s comment illustrates how the knowledge and skills embodied in the *design* of software and IT infrastructure remain centralized on site, while expertise that relies on technical knowledge can be relocated offshore. Furthermore, he points to the fact that a number of services such as consulting require interpersonal communication and therefore are less likely to be offshored.

While the SAIC-Entergy contract represents one instance of outsourcing involving high skilled work and offshore activity, IT outsourcing is slightly different from BPO. Whereas IT outsourcing focuses on the management and development of the IT portfolio of a business, BPO is catered towards the operations that are embedded in these IT systems. According to Ray Bergeron, another service delivery manager at SAIC:

“The quick evolution is BPO... ITO is a dying breed anyway. Right now its low level services, the idea of corporate services going to another country is very fast and coming. Why do you need an accountant here to do your accounting? Why do you need a supply-chain guy here to manage your supply? If you have a good data system and you can feed the correct data in, someone can manage all the aspects of it somewhere else. These are not hands on skills like a car-mechanic. And India is jumping on it. It’s not as prevalent, BPO is primarily in large service centers in the US – you send your business process to a processor here in this country...It’s a matter of time before it goes to another country and you don’t care about it. You have a company run by a set of MBAs and CFO’s and its pretty much all you need once you get the model right.” (Focus Group)

Bergeron's comments illustrate how the rapid pace of technological change allows a new paradigm of work organization, although he concludes *in extremis* with the idea of a hollow corporation run by a handful of business executives. Mehra had this to add about the difference between IT outsourcing and BPO:

“ In ITO, you separate your customer from your operation because you're kind of doing it as a managed service to them. In BPO, because you are part of the business process now, your customer base is part of the service delivery, so they are integrated in the onsite offshore model. You can't alienate your customer and work independently. In IT you can. (Focus Group)

Bergeron's narrative emphasizes the possibilities that technology allow in the organization of work, while Mehra's comment builds on his earlier emphasis that some services require consulting and on site client interaction that challenge their relocation. The analysis of Entergy and SAIC illustrates that how companies explore these possibilities is as much an organizational issue as it is a technological one. What is clear is that the emergent BPO market offers a vast range of services that occur at various value-added levels and depend on different ranges of skill.

The principle areas central to back office BPO growth include: finance and accounting, human resources, supply chain management and procurement. Each area represents a common corporate function whose execution depends on a combination of IT and human intervention. According to Ravi Aron and Jitendra Singh (2004), BPO involves a “knowledge continuum,” a process that begins with raw data which is in turn managed, validated, and converted into knowledge by information workers. Aron and Singh developed a basic schema that describes the features of different kinds of work processes that are outsourced, arranged in a pyramid beginning with data transformation at the bottom, followed by customer interface services, problem resolution, and expert intervention at the top.

The authors argue that the concept of revenue distance determines what will remain in-house versus what should be outsourced. The two dimensions of this concept involve the proximity of a process to the customer and the value it creates. The closer a process is to a customer the less likely it will be outsourced. Processes far from the customer such as basic data management are less likely to be revenue generating endeavors and are more likely to be outsourced. Work at the bottom of the pyramid is more likely to be outsourced than is work at the top. Similarly, the lower the strategic value of the work process, the lower the category on the pyramid and thus the more likely it is to be outsourced. The data centers established in India during the nineties by large US firms represent the lowest tier, involving straightforward data entry and management. Work at this end of the spectrum is typically repetitive and less-skilled, and therefore already subject to automation and foreign competition. For example, transforming data from documents or audio tapes (such as medical transcription) may soon be made redundant by voice recognition software. Following data transformation in the pyramid is customer interface services, referring to work requiring interaction between employees and customers, such as telemarketing and call-center related work. Processes that require greater worker expertise are processes that depend on the ability of the worker to solve problems and employ some degree of discretion. Thus, the strategic value of a process to the firm and expertise required by the nature of the work will determine which occupations will be outsourced.

Human Resources Outsourcing

While human resources remain an integral function in all companies, the emphasis on interpersonal service and getting transactions processed effectively is rapidly changing. A broad spectrum of business processes fall under the HR umbrella and

typically include payroll administration, such as producing checks or handling taxes; employee benefits, including medical and 401(k) plans; and HR management, such as recruiting, training, and firing. As companies grow through global expansion or mergers and acquisitions, workforces are becoming increasingly decentralized, globally distributed, and culturally diverse. The increased use of flexible work arrangements such as contractors and telecommuters has also changed the workforce landscape. The challenge facing HR departments in many companies is establishing and maintaining global talent while being viewed by some in the organization as of less strategic importance than marketing, finance, or IT functions. Beginning during the 1970s as simple payroll outsourcing, Human Resources Outsourcing (HRO) now constitutes the fastest growing subcategory of BPO. Nelson Hall, a market research firm specializing in BPO, estimates HRO will grow to \$33 billion worldwide by 2008, while Gartner expects the market value to reach \$37.8 billion by 2007 (Greengard 2004).

Downsizing and cost cutting during the 1990s created pressure on HR professionals to minimize transaction costs, while departments themselves were increasingly centralized. The development of HR information software solutions increased the performance efficiency of HR and provided better data about the workforce, but these assets also increased the cost of administering HR functions. In addition to the high cost of implementing these computer systems and their necessary upgrades, these technologies also require highly-paid IT professionals to maintain them. While these systems increase the efficiency with which HR tasks are performed, they also provide more transparency to the extent particular processes are costly or add value. In turn, some companies began transferring individual processes to HR providers such as

ADP, Paychex, and Choicepoint who specialize in support software for specific tasks such as payroll or recruiting.

Until recently, the majority of HRO deals have been transaction-focused and limited to individual processes such as payroll services or benefits administration. Despite mainstream acceptance of outsourcing individual HR functions, many areas of HR were considered “too sensitive” or “too proprietary” to outsource. The emergence of what some HRO insiders call “full spectrum” outsourcing (the transfer of five or more HR processes) indicates a sea change in how companies think about HR. The first major multi-process HRO deal was signed in 1999, when BP (formerly British Petroleum) and California startup Exult inked a 10-year \$600 million, outsourcing deal in which Exult took over nearly all HR functions for the global oil company. These functions included compensation, benefits, payroll, organizational development, performance management, training, employee development, expatriate administration, recruiting/staffing/resourcing, domestic relocation, employee relations, policy and legal compliance, and employee data and record management.

Exult now manages these processes from two client service centers located in the UK and the US. The only functions retained within the BP structure are HR policy, strategy, and professional resources. BP began to consider outsourcing HR after merging with Amoco in 1998. Of the 1000 HR employees employed by BP and Amoco, 800 were transferred into Exult (Scott 2003). Surveys conducted before and after outsourcing began show satisfaction among employees with HR services increased from 60% to 85% (Maitland 2002). Exult’s web-enabled service delivery model, called “myHR”, provides employees self-service access to HR resources through an internet portal, which allows employees to conduct HR procedures such as benefits enrollment or adjustment on their

own. Among the benefits delivered to BP besides cost-reduction, some operations have been simplified through standardization. For instance, prior to outsourcing there were 100 different types of employment contracts for BP employees in the UK, while now there are less than 10.

Considered the “deal that changed everything” among HRO professionals, the BP-Exult deal was followed by a host of enormous contracts between large corporations and consulting companies. Accenture, ACS, EDS, and IBM Global services have all followed suit and initiated multi-process outsourcing contracts and created entities that focus on HRO. A popular way that some companies have gone about this is by co-opting the HR talent of clients by absorbing whole departments or service centers during the early stages of a contract and then utilizing these workers to serve future clients. This is exactly what SAIC has done at Entergy, and it represents one of the primary attributes of current outsourcing practices.

Demand drivers behind HR outsourcing are similar to those that drive other aspects of BPO. The number of transaction-intensive processes in human resources makes a clear case for cost reduction through economies of scale and relocation. Most estimates of cost savings through HRO place annual savings between 10-30%, and those savings may be increased through the use of offshore facilities. The use of offshore facilities in HRO is still in early stages of development but it seems likely to grow as companies continue to push for cost savings. Accenture currently maintains an HR pilot in India which hints at possible future growth. Concern over the security of employee data might cause some companies to resist sending HR work offshore. The European Union’s E-privacy Directive already limits the movement of personal data beyond EU borders, though no such legislation exists in the U.S.

Driven by potential cost savings and higher quality services, technological development is another obvious driver of HRO. Cost savings gained through outsourcing come primarily from eliminating the costs of installing or maintaining expensive IT infrastructure. Considering the cost of replacing their 30 year old legacy computer HR system, in 2002 the state of Florida signed a deal with Convergys that is estimated to save \$173 million by replacing the old system with an ERP system that provides central support across 32 state agencies for 70 percent of the HR workload (human resources, benefits and payroll administration, recruiting, and training)⁵. Eight hundred workers lost their jobs, but were given special consideration for jobs with Convergys or other state positions.

The improvement of software underlying HR processes has also been a boon to cost reduction as web-enabled self-service allows employees to do a number of things online without the intervention of HR staff. The company saves money by offloading the burden onto workers who complete HR tasks at their own convenience over the Internet. BP and Florida state employees, for instance, can go online and complete training programs, request health care claims, or enroll for benefits. The view of HR as a cost center (as opposed to a profit producer) gives this department less priority in technology budgets, though this may change as HRO becomes more strategic in nature. The elimination of transaction-intensive processes allows HR to shift its priority toward the quality of the labor force. One of the benefits delivered to Florida's state government was a Web-based recruiting process that during the first three months attracted 128,000 applicants and now averages 53,000 applicants per month. Increasingly, companies are applying technologies to optimize their talent pool through "human capital management"

⁵ (http://www.convergys.com/pdf/casestudies/cs_ec_stateofflorida.pdf).

– or recruiting, optimizing, and retaining the best talent possible. According to Jason Averbook, CEO of consulting firm Knowledge Infusion: “HR’s own budget is 0.5% to 1% of the company’s overall expense, whereas people are 70%...they’ve been trying to decrease the cost of their own 1% expense rather than optimizing the 70% cost” (Brandel 2005). A growing market of specialized software used in recruitment, performance management, and employee education increases the ability of companies to apply their workforce towards their business objectives.

Like outsourced manufacturing work, many of the services involved in HRO are transaction intensive labor processes. These processes fall into the lowest tier of Aron and Singh’s hierarchy of BPO processes which indicates that they are of low strategic value and more likely to be outsourced. Examples here include employee data and record management, benefits administration, and medical claims management. One of the important things BPO of HR services demonstrates is that even jobs that require interpersonal skills and autonomy can be broken down into tasks that can be accomplished on the Internet without human intervention. Many of these lower value added jobs that can now be outsourced offshore as a result of standardization of business processes and digitization of paper-based processes. However, there are also higher value added services that involve interpersonal skills (recruiting, hiring, firing,) in human resources that can be outsourced but not offshored. These tasks and HR activities are not easily automated and are closer to the control of work than the execution. Thus, the majority of outsourced process in HR are low-value added, low-skilled functions. As processes require more interpersonal skills, they are no so easily outsourced and depend on the level of interaction required and the possibilities of technology.

Finance & Accounting

Outsourcing of finance and accounting processes follows human resources outsourcing in terms of fast growing segments of business process outsourcing⁶. Like other “back office” operations, finance and accounting are viewed as transaction-intensive resource consumers. Furthermore, the numeric and ruled-based nature of these operations makes them prime targets to be farmed out. IDC consultancy estimates that the finance and accounting market will exceed \$47.6 billion by 2008, growing at a 9.6 percent compounded annual rate (Gamble 2005). Pioneered by BP, General Motors, and Proctor and Gamble, many companies have been outsourcing accounts payable and receivable since the 1990s, while more recently deals have become more comprehensive including aspects of general ledger, treasury, risk, and tax management. Following the merge with Amoco, BP entered a landmark contract in 1999 when they signed a \$1.1 billion, ten year outsourcing deal with Pricewaterhouse Coopers. Pricewaterhouse Coopers took over payroll and invoice functions as well as accounting support application software while absorbing 1200 BP financial services personnel in Chicago, Tulsa, and Houston. The same year, General Motors and Andersen Consulting (now Accenture) signed a 10-year \$250 million contract over ten years in which Arthur Anderson took over GM's payroll, dealer billing, accounts receivable and payable, fixed asset accounting, and travel and expense transactions (Copeland 1999). A unique feature of this deal was revenue sharing: GM will benefit from a revenue stream derived from selling intellectual and hard assets related to how they process back office functions, while the infrastructure upgrade and continuing maintenance will benefit Andersen.

⁶ In some circumstances these two components of BPO overlap. Payroll, for example, is tied to both departments.

While strategic finance decisions will always remain in-house, BPO is moving beyond commodity tasks like payroll to include a greater number of processes. General accounting services, treasury and cash management, customer billing and collection, and vendor payment are now among the areas of finance and accounting offered by outsourcing vendors. Many of the services in these segments of finance are outsourced because they are transaction intensive, paper-based, or can be automated end-to-end. For example, vendor payment (which includes accounts payable and travel and expense accounting) is commonly outsourced because scanning and electronic invoicing can automate the process from invoice to payment. While these segments are commodity-like in nature, other accounting and finance inputs are targeted because they require specific skills or expertise. Tax planning and compliance, for example, are niche areas that make prime outsourcing candidates because they rely on highly paid specialists. Finally, many outsourcing vendors offer industry specific financial services. For instance, in July 2004 IBM and Marathon Oil entered a contract in which IBM's Business Consulting Services unit will manage accounts payable, fixed-assets accounting, production-revenue (royalty payments to oil and gas leaseholders), and joint-interest accounting (shared ownership of wells).

Like other segments of BPO, outsourcing frees companies from managing inputs to finance and accounting processes while taking advantage of scale economies, advanced technologies, and concentrated expertise. Operating cost reductions, typically ranging from 20 to 40 percent, are the primary benefit of outsourcing finance functions though new regulatory requirements also encourage outsourcing. Following a series of corporate financial scandals (Enron, Arthur Anderson, Worldcom), the 2002 Sarbanes Oxley Act requires increased accuracy and reliability and real-time financial disclosure.

Additionally, the law requires that senior CEOs and CFOs certify their accuracy of reporting. According to a survey of 236 senior finance executives by the Economist Intelligence Unit, 43% said outsourcing F&A improved the quality of governance and compliance, while 56% said outsourcing companies are better equipped to accommodate frequent changes in tax code (White 2001). According to Bill Frech, vice president of CapGemini, “Companies without a strong, standardized finance function are vulnerable to inconsistencies in policy in achieving the transparency of data required by regulations such as Sarbanes-Oxley” (Schwartz 2005). Outsourcing may be an attractive option to some companies as a way to immediately upgrade technology and practices that increase disclosure accuracy and accommodate regulatory changes. By outsourcing F&A to a third-party, companies mitigate policy risk by transferring these functions to vendors who make it their business to offer services that adjust to changes in the regulatory environment. This does not abdicate companies from responsibility but rather transfers it to the service level agreement.

Vendors deliver cost savings through consolidation and standardization. Geographically disparate financial activities are centralized into one location that achieves economies of scale through common IT and accounting staff. Further cost reductions may be achieved by clients who wish to relocate transaction intensive processes to offshore facilities while keeping more analytical work such as equity research at a domestic location. Some companies enter outsourcing deals as a human-resources strategy to take advantage of localized expertise without having to recruit, manage, or retain these professionals themselves. Furthermore, local skills shortages may encourage outsourcing. While this does not apply to the US, multinational corporations that operate in emerging economies in Asia (China, Vietnam, Thailand)

where skilled finance talent is less available may find outsourcing a cost effective alternative to relocating expatriate employees.

Consolidation also occurs technologically through the adoption of a common IT platform. Companies running multiple computing platforms expose themselves to balance sheet risk from discrete applications that do not effectively communicate with one another. For example, a London-based shipping container firm recently discovered \$41 million in accounting errors resulting from its legacy system after installing an ERP infrastructure (Songini 2004). ERP standardizes finance and accounting processes across the company and provides greater transparency through consistent reporting practices and online access to real-time performance data. Consequently, greater visibility enables businesses to optimize financial processes. In addition to cost savings and control of risk, outsourcing may be an effective way to improve process performance. Common results include accelerated financial reporting, unallocated cash reduction, improved contract compliance (identifying overcharges), and improved collection from debtors. If these potential results are available at costs lower than the go-it-alone approach, then outsourcing may prove irresistible.

That finance and accounting are rule-based and heavily embedded in the IT infrastructure increases the likelihood that processes within these corporate functions can be more easily outsourced. Many of these functions such as payroll and accounts receivable are easily automated as they move from paper based processes to digitized ones. As these functions are standardized and integrated into a consolidated centralized computing platform the need for IT workers in different locations decreases. Furthermore, the rule based nature of the accounting and finance function creates a different outcome as business processes move up Aron and Singh's hierarchy. Finance and accounting

occupations require less interpersonal skills as a common language of numbers exists in their work. Simultaneously, much of the work involved in these occupations requires a great deal of analytical and technical expertise. This indicates an increased incentive to outsource high value-added high-skilled processes where there is limited or no requirement of interpersonal skills. This notion exists among professions such as accounting and computer programming whose work employs a universal language. Therefore, how BPO will unfold in these occupations depends largely upon the ability of these workers to resist workplace change or organize collectively in opposition.

Supply Chain Management

Supply-chain management is another area of BPO in which companies are beginning to focus. The basic function of procurement and supply-chain management is the purchase and management of the parts, materials, and services required to make a product. This includes not only direct inputs (goods and materials used in production) but also indirect material (e.g., pencils, computers, company cars, buildings) and services (janitorial services, security, food services) necessary for company operations.

According to research firm IDC, the global procurement BPO market was \$5.9 billion in 2002 and is expected to grow to \$12 billion by 2007 (McDougall 2005). Bill Chiemny, the vice president for global supply chain solutions at IBM says that “building a responsive supply chain that is integrated in real time with the rest of the enterprise is a complex proposition that requires a range of consulting, technology and services skills... Supply chain is anything but a commoditized, non-core competency”⁷ Outsourcing the procurement process is an effective way to eliminate risk and improve sourcing

⁷ “IBM Introduces Supply Chain Outsourcing Offering” *Supply and Demand Chain Executive* June 24, 2005 by editorial staff).

efficiencies by delegating repetitive, transaction-intensive spending categories to a third-party. These vendors are commonly referred to as procurement service providers (PSPs) and offer a number of activities in this segment of BPO, including procure-to-pay transaction processing, spend data management, and strategic sourcing. Outsourcing procurement eliminates price variation by replacing fragmented, inefficient processes with consolidated Internet-based procurement technologies that provide greater visibility and control to monitor and manage spending.

Cost savings are primarily achieved by optimizing spending in indirect spending categories. Thus, office supplies and maintenance, repair, and operating (MRO) items are prime candidates for outsourced procurement as they are repetitive and are often sourced from numerous suppliers. PSPs can achieve significant cost savings in these categories as a result of increased purchasing volume across clients, domain expertise and market knowledge, and best of breed processes. Cost savings are further achieved in many cases as a result of ERP systems that optimize transaction processing and add greater visibility to total spending. Most companies continue to make purchasing decisions at the divisional or site level, which exposes the procurement process to greater transaction variation and thus increases the risk of inflated costs. Similar to other BPO areas, the use of ERP systems creates a standardized procurement function across the firm. In addition to procurement, services focused on the logistics of moving materials through the supply-chain are being offered by PSPs. Fedex, for example, has teamed up with IT consultancy CapGemini to combine technology and experience in a supply-chain outsourcing platform that oversees the process from order administration through shipment to financial settlement (Read 2004). Supply-chain management is considered the untapped segment of BPO, and will likely prove one of the more strategic areas as

companies expand globally. The strategic value in this “back office” process may prove itself as companies such as Fedex and CapGemini increase the ability of smaller firms to organize their supply chains around demand models in such a way that reduces inventories and accelerates product turnover time.

Most processes that are outsourced in supply chain and procurement are transaction intensive functions that can be automated by computer technologies. Most companies already have IT intensive supply chain functions, but when outsourced to a third party firms benefit from access to a wider supply chain run by a third party. Thus, the procurement of many commonly purchased materials and non-strategic items will be outsourced. Occupations in the supply chain and procurement function that involve interpersonal skills are help desk and supply chain support and consulting services such as the negotiation of better contracts with suppliers. These latter customer interface services may be more likely to be outsourced but less likely to be offshored, whereas help desk functions will depend on communications skills. Higher value added procurement processes, such as the purchase of materials or services of strategic necessity (e.g., computer systems, hi-tech components, etc.), are less likely to be outsourced and require domain or site-specific knowledge.

Recent Outsourcing Projections

The above discussions of BPO growth focus our attention on the general categories of work processes outsourced. Unfortunately, the only empirical evidence of the extent of BPO is occurring and what occupations are most impacted is tentative at best. Estimates of job losses resulting from outsourcing since the year 2000 vary anywhere between 100,000 and 500,000 while projections of future job loss are as high

as 14 million. The most widely cited figure that helped ignite the outsourcing debate came from a study conducted by Forrester Research (McCarthy 2002) which predicted that 3.3 million service-sector jobs will be transferred abroad by 2015, 2.3 million of which are expected to go to India. Forrester is a technology research company that sells research, data, and consulting products and services. Some question the objectivity of Forrester's study as a result of their business interest. As Harris Miller, president of ITAA puts it:

“The people who write these reports like Forrester etc number one, have a vested interest in seeing people think there is a lot of work going offshore because they make money consulting on that. They go out and say, ‘hey all this work is going offshore why don’t you hire us to help you figure out how to do it’ and number two, they extrapolate hockey stick lines and they’ve been wrong historically in all the other trends they are going to be wrong on this one.” (Interview 4)

Based on surveys, vendor and customer discussions, and third-party data McCarthy identified nine categories from the Standard Occupational Classification (SOC) threatened by offshore outsourcing. The study ranked each category according to four factors related to offshoring: whether the service is delivered locally, whether necessary skills are available abroad, the extent to which technology supports the business process, and how well the process is documented and defined. The speed at which jobs will move offshore is ranked according to these factors, and then an increasing percentage is applied to the estimate. For example, if an occupational category is ranked 2, 1.5 percent of the jobs in this category are expected to move abroad by 2005, 3.5 percent by 2010, and 8.0 percent by 2015.

Table 3: Projected Offshored Jobs, Forrester Research

Standard Occupational Classification category	2000	2005	2010	2015
Management	0	37,477	117,835	288,281
Business and Financial Operations	10787	61,252	161,722	348,028
Computer and Mathematical	27,171	108,991	276,954	472,632
Architecture and Engineering	3,498	32,302	83,237	184,347
Life, Physical, and Social Science	0	3,677	14,478	36,770
Legal	1,793	14,220	34,673	74,642
Arts, Design, Entertainment, Sports and Media	818	5,576	13,846	29,639
Sales and Related Occupations	4,619	29,064	97,321	226,564
Office and Administrative Support	53,987	295,034	791,034	1,659,310
Total number of US jobs going offshore:	102,674	587,592	1,591,101	3,320,213

Source: Forrester Research

Of the total number of jobs projected to go offshore, the predominant categories affected include office and administrative work, IT and mathematical work, and business and financial operations. Computer jobs are projected to equal more than 472,000 or roughly 15% of the loss, while office work comprises half of the projected displaced jobs. Kirkegaard (2004) argues that while particular high-tech occupations have experienced significant declines in employment, the majority of job losses are concentrated in low-skilled, low-paid IT work. Furthermore, the author asserts that economy-wide trends such as the decline of manufacturing employment underlie job volatility. The study specifically focuses on the nine occupational categories identified by McCarthy as threatened by offshore outsourcing by looking at labor market data following the decline of the IT boom. Using BLS survey data from the Occupational Employment Statistics (OES), the Current Employment Statistics (CES), and the Current Population Survey (CPS), Kirkegaard finds that a disproportionate amount of job loss in these categories occurred in the manufacturing sector. During the period of 2000-2002, manufacturing sector employment in threatened categories declined 25.4%, while occupations in the

service sector experienced a 0.59% increase. Kirkegaard suggests that such a trend may in part be the result of U.S. manufacturers outsourcing work to US-based service sector companies. Manufacturing employment declined in each of the nine categories while *computer/mathematical*, *management*, and *sales* occupations were the only categories to decrease in the service sector. Among the categories adding jobs during this period were *business and financial operations*, *legal*, and *life, physical, and social science*.

Management occupations economy-wide experienced a greater decline in employment than any other category considered comprising 60.7% of all job losses among threatened categories. Total employment in management occupations decreased by 8.9 percent. A detailed examination of management sub-categories shows that *chief executives* (CEOs) constituted 12 percent of the total decline in management occupations. According to Kirkegaard, this demonstrates that cyclical developments are the real culprits behind job loss or the “churning” of the economy. State level employment statistics indicate that while many states are losing jobs, others are gaining. For instance, California lost about 44,000 *computer and mathematical* jobs while New Jersey gained around 10,000. Kirkegaard concludes that “...a U.S. job lost to outsourcing somewhere may be another job gained elsewhere, rather than inevitably moved offshore to a foreign category.”

Looking at average wage by occupational category, Kirkegaard points out that the majority of work projected to go offshore is concentrated in low-paying jobs. Representing 64% of the total employment in threatened occupational categories, *office and administrative support occupations*, and *sales and related occupations*, earning on average \$28,540 and \$31,560 respectively, fall slightly below the US average wage of \$35,538 (BLS 2002). Together, job losses in these categories constitute approximately

two-thirds of total employment decline in threatened categories during the 2000-2002 period. When considering higher paying work (business and finance, architecture, engineering, computer, mathematics), 30 percent of jobs lost during this period earn over \$50,000 yearly. Kirkegaard concludes with a detailed examination of IT related jobs, and finds that 52 percent of the decline in IT employment between 1999 and 2002 is concentrated specifically among *data entry keyers*. Median annual earnings in this occupation during 2002 were \$22,390 (BLS), again an important consideration in a debate characterized as predominately affecting high-paid occupations in the middle class. Furthermore, high skilled computer programming occupations such as *computer software engineers in applications* and *systems software* both increased by over 20% during the period, suggesting that lower-skilled IT work is migrating abroad while higher-skilled, higher paying occupations in IT have generally increased since 1999. A Global Insight (2004) study funded by the Information Technology Association of America examined offshoring in the IT sector (software and other IT services). ITAA is national trade association that has lobbied Congress in favor of offshoring, representing mid to large size companies such as Microsoft, EDS, IBM, and Oracle. According to the study, of the 372,000 IT jobs that were lost between 2000 and 2003, only 104,000 were displaced as a result of offshoring. These figures represent 10% and 2.8% respectively of the entire IT workforce in 2000.

The study argues that the pain felt by IT workers is the result of the end of exaggerated wages and aggressive hiring typical of the late nineties prior to the collapse of the dot.com bubble, as opposed to a mass exodus of jobs offshore. Tighter IT budgets brought forth by the 2001 recession and higher productivity are also cited as central factors impacting IT employment. The report concludes that the US economy will

experience more growth through offshoring than without it, and that savings will actually increase the number of IT jobs over the next decade. The loss of IT jobs is argued to be offset by the job creation in other sectors, driven by dampened inflation and higher productivity. Contradicting all other studies, the Global Insight report claims that offshoring will create 317,000 extra jobs by 2008.

Two researchers from the Fischer Center for Real Estate and Urban Economics at the University of California-Berkeley forecast that the number of “at-risk” occupations is much greater than indicated by other studies. Bardhan and Kroll (2003) estimate that up to fourteen million service jobs could be affected by offshore outsourcing, either through relocation offshore or downward pressure on wages. This “outer limit” estimate represents the total level of employment in 2001 in occupations considered at risk to offshoring, though it does not identify the extent to which it occurs in any particular occupation. The authors examined only occupations where evidence based on business literature exists that some outsourcing has occurred or is being planned. Table 4 illustrates jobs threatened by offshoring and lists salary and 2001 employment level in each category.

Table 4: US Employment in Occupations at Risk to Outsourcing

	Employment 2001	Average Salary 2001
All Occupations (Total US Employment)	127,980,410	\$34,020
Occupations at Risk of Outsourcing		
Office Support	8,637,900	\$29,791
Computer Operators	177,990	\$30,780
Data Entry Keyers	405,000	\$22,740
Business and Financial Support	2,153,480	\$52,559
Computer and Math Professionals	2,825,870	\$60,350
Paralegals and Legal Assistants	183,550	\$39,220
Diagnostic Support Services	168,240	\$38,860
Medical Transcriptionists	94,090	\$27,020
Total in Outsourcing Risk Occupations	14,063,130	
Percent of All Occupations	11%	

Job categories were arrived at based on attributes of their “outsourcability”, including: high information content, a telecommutable and internet enabled work process, no face-to-face customer servicing requirement, and high wage differentials with similar occupations in destination countries. Some, such as medical transcription and data entry keyers, were also determined by significant coverage in the media. Table 4 shows that at-risk jobs cover a wide range of compensations levels but overwhelmingly impact middle class jobs.

Bardhan and Kroll argue that job creation in outsourcing to foreign countries during the 1990s resulted from tight U.S labor markets whereas recent job transfers are driven by lower labor costs. The authors compare the first wave of outsourcing manufacturing related work to the new wave of outsourcing white collar service sector jobs, and emphasize the role of the Internet, transnational immigrant networks to the US, and liberalized emerging market economies as crucial to new wave outsourcing. Whereas outsourcing manufacturing led to increased inequality between blue-collar and white-collar occupations, the authors conclude that the recent wave will encourage inequality within white-collar work. Furthermore, outsourcing of service work will have regional implications in high-tech markets such as San Jose in the Silicon Valley, San Francisco, and Boston’s 128-495 high tech corridor.

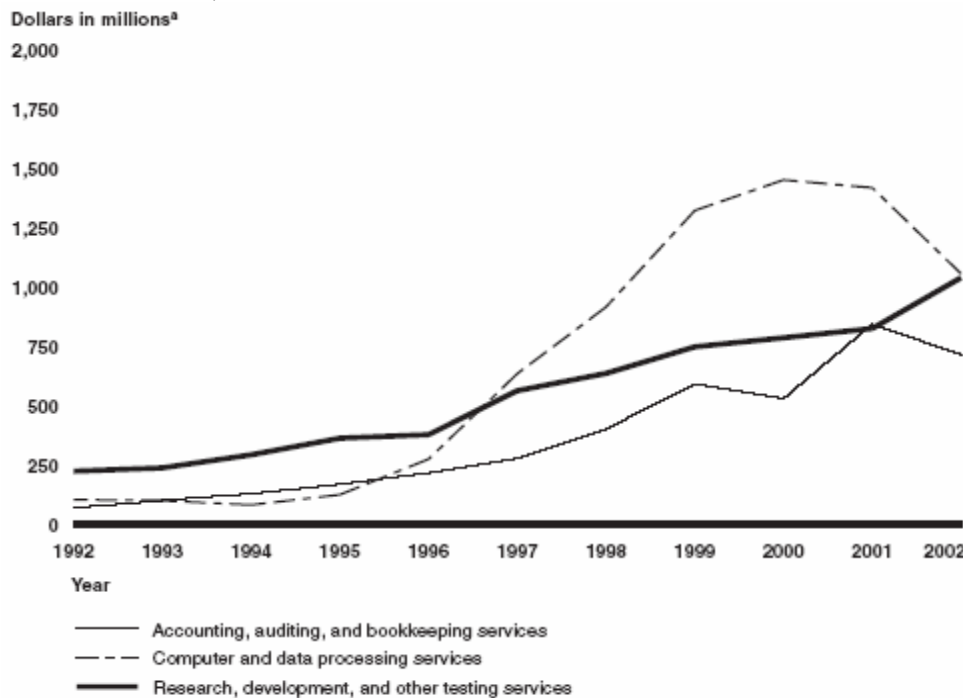
Prompted by a request from the House of Representatives, a U.S. Government Accounting Office (2004) report on offshoring stated that “U.S. government data provide some insight into the extent of offshoring by the private sector but they do not provide a complete picture of the business transactions that the term offshoring can encompass.” The GAO study looks at two rough indicators of offshore activity: the import of services and layoffs.

According to Department of Commerce data, private sector imports of services generally associated with offshoring are increasing. Services such as accounting and computer programming services are categorized as *business, professional and technical services* (BPT). BPT increased by 76.8 percent from \$21.2 billion in 1997 to \$37.5 billion in 2002. Measurement of imports of BPT is arguably the best indicator of the growth of offshore services because it includes so many services associated with BPO, including:

- Accounting, auditing, and bookkeeping
- Architectural, engineering, and other technical
- Computer and data processing
- Database and other information
- Legal
- Management, consulting, and public relations
- Research, development, and testing

Below, figure 2 illustrates the activity in select components of BPT between 1992 and 2002.

Figure 2: Growth in Unaffiliated US Imports of Selected Components of Business, Professional, and Technical Services, 1992-2002



^aValues are in nominal dollars. We did not adjust for possible changes in prices (e.g., inflation) because BEA does not produce price indexes at this detailed level of data.

Unfortunately, data are currently only available leading up to 2002. The above data are consistent with technological and historical conditions of the 1990s: the emergence of the Internet in 1994, the increased use of foreign computing professionals for coding work leading into Y2K, and the falling costs of telecommunications. However, future activity in the above components of BPT will have to verify or refute the claims of critics who argue that outsourcing is sending high-paid, high-skilled jobs offshore.

The US economy is both the largest importer and exporter of goods and services in the world. While the offshoring debate has focused on developing countries that are exporting services to the US, Canada and the United Kingdom accounted for 43.6 percent of unaffiliated BPT services to the US during 2002. India, on the other hand, ranked 8th in this respect behind Japan, Germany, France, Mexico, and the Netherlands. However, examining particular components of BPT exported by India to the US lends credence to the claim that the majority of the work going offshore at this point is limited to computer and data processing (see figure 3).

Figure 3: US Unaffiliated Imports from India of Selected, Business, Professional, and Technical Services.

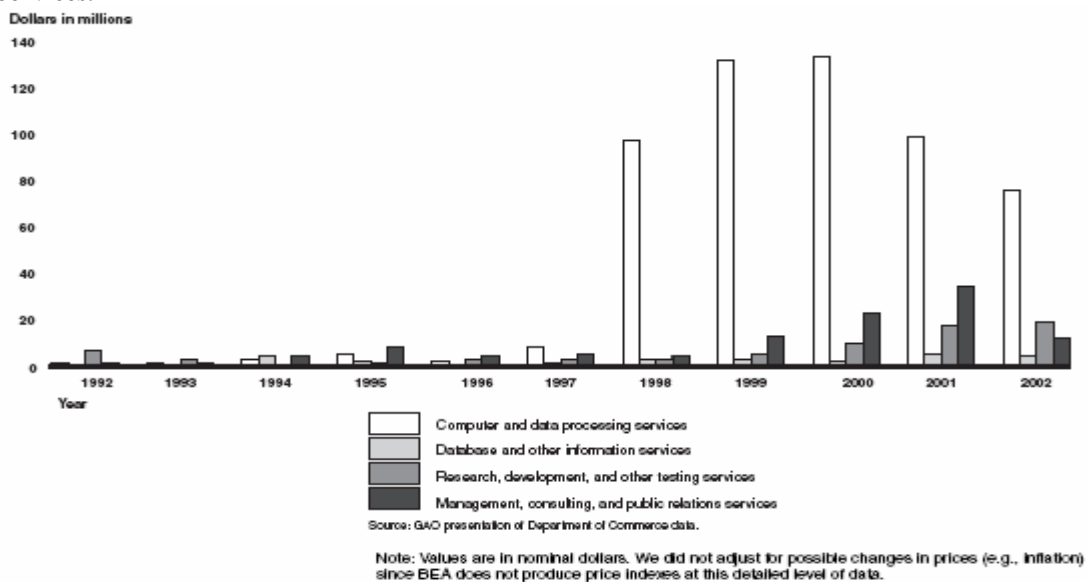


Figure 3 shows that imports of computer and data processing services from India to the US exploded from \$8 million in 1997 to a peak of \$133 million in 2000, followed by a decline to \$76 million in 2002. Overall, this represents an increase of 850 percent!

The GAO report also considers the impact of offshoring on the US workforce, examining a range of occupational data collected by the Bureau of Labor Statistics. The study finds that layoffs attributable to overseas relocation have increased but comprise only a small fraction of total overall layoffs. According to the Mass Layoff Survey (MLS), 13,000 or 0.9% of 1.5 million layoffs during the period of 1996 to 2003 resulted from overseas relocation. Ninety-six percent of layoffs during this period occurred in the manufacturing sector. The study notes that the MLS is a poor indicator of the impact of offshoring on the U.S. workforce for two primary reasons. First, the scope of the MLS only includes a portion of layoffs, excluding establishments with fewer than 50 employees. Second, while “overseas relocation” is a reason surveyor may select when querying employers, many employers are reluctant to provide the reasons behind layoffs. In response to this latter problem, the MLS in 2004 began specifically asking detailed questions concerning whether or not layoffs resulted from overseas relocation. Two other important weaknesses of the MLS go unmentioned however. First, job loss from outsourcing may not result in mass layoffs. Some outsourcing deals may not be the equivalent of shutting down a factory but instead unfold over time. It would be fair to say that most companies exercise a great deal of caution in pursuing outsourcing. Furthermore, the MLS measures job loss among full-time employees but does not include contract workers. Excluding such work arrangements may significantly underestimate the number of workers impacted in these situations.

It is difficult to trust any particular numbers that forecast the future impact of outsourcing on jobs. While government data may indicate sectors of the economy or occupational categories presumably affected by outsourcing, it is difficult to separate jobs losses from other causal considerations such as the collapse of the dot.com bubble, the tightening of IT budgets, and the post-9/11 recession. Because outsourcing emerged as a political hot potato three years after the dot.com bubble burst in late 2000, it follows that job loss projections that extend ten to fifteen years into the future based on two or three years of data are at best suggestive.

Furthermore, while the rapid growth of outsourcing to India and other foreign economies makes clear that offshoring is expanding, the focus on foreign competition overlooks the fact that outsourcing threatens jobs regardless of whether or not work goes overseas. This can occur both through the consolidation of disparate activities to regional shared services centers and through automation which to a certain extent eliminates the need for human intervention. Even when companies do establish BPO operations abroad, existing government data methods are incapable of determining whether or not the import of service work was previously performed by US employees.

Two other factors related to vested interests compound the difficulty in ascertaining a clear picture of the impact of outsourcing and offshoring on domestic jobs. First, companies remain quiet about outsourcing numbers as the unpopularity of it is a potential threat to brand reputation. Most company statements acknowledging contracts mention the number of employees who are transitioned to outsourcing vendors, though they conveniently leave out the number of employees who lose their job. Finally, when there is a financial interest in promoting outsourcing, as is the case with Forrester's data, it comes as no surprise that empirical endeavors become increasingly creative.

CONCLUSION

BPO and the outsourcing of manufacturing share many common features, but even within these commonalities exist important distinctions. Both represent technology facilitated organizational strategies that take advantage of time-space compression to increase profits, remain competitive, and access new markets. While the production of goods requires the orchestration of parts through space, the production of services is made up of information and knowledge that can instantaneously move through the Internet and is therefore more easily divided and relocated than any aspect of goods production.

Secondly, both rounds of outsourcing represent attempts by management to increase profits through increased control of the labor process. Traditionally, this has involved low-skilled and low-value added occupations. Offshoring in production affected blue-collar workers responsible for the production of toys, clothing, and electronics, whereas among service workers the impact has been only felt until recently by clerical workers who input data or process insurance claims. Now, however, BPO demonstrates that the logic of the division of labor can be applied to higher value added jobs such as accounting and computer programming that have traditionally been located closer to the conception and design of work.

The analysis of the SAIC-Entergy IT outsourcing contract and BPO sectors demonstrates that outsourcing is not simply a technologically determined outcome or a linear progression of the separation of conception and execution but an organizational process that involves cost, politics, and corporate culture. Each of these factors and the ability of occupations threatened by BPO to protect their professions ultimately shape the outcome of the application of technology to the labor process. Aron and Singh's

typology of BPO, while a useful framework for understanding how the process unfolds, overlooks tendency of management to decrease wages while increasing control of the labor process.

This study proposes that how this process unfolds at each level may be better understood by a typology of skill. Aron and Singh's knowledge hierarchy itself represents a division of labor within knowledge work which demonstrates that skill is the common denominator of work. William Form (1987) examines Braverman's premise that work under capitalism is deskilled, utilizing a framework of skill that resembles Aron & Singh's knowledge typology of BPO services. Skill refers to the complexity of a job, and "the level, scope, and integration of mental, interpersonal, and manipulative tasks" required" (30). This typology of mental, interpersonal, and manipulative tasks serves as a more appropriate predictive framework as demonstrated by the analysis of each sector of BPO. Manipulative tasks in HR, finance and accounting, and supply-chain such as employee data entry, payroll processing, and non-strategic procurement are most commonly outsourced processes and involve transaction intensive, repetitive-task oriented work. Manipulative tasks often depend upon a worker's ability to follow rules and can be performed with minimal skill or training. This is consistent with the outsourcing of assembly line production work.

Business processes that require interpersonal skills or direct contact with people demonstrated a potential political problem, a theme that also emerged in the examination of SAIC-Entergy. While this political unpopularity may cause some companies to reconsider outsourcing customer facing activities, work processes involving interpersonal communication, such as supply-chain or IT help-desk support, may ultimately depend on how foreign work cultures mesh within the outsourcing arrangement and the quality of

the foreign labor. When outsourcing does not involve offshoring, this may pose no problem. One way companies can circumvent the need for workers with interpersonal skills is by automating tasks which previously required these skills. This was made apparent by the example of human resources, where the burden of tasks that previously involved HR workers was transferred to employees who managed them independently over the internet.

Finally, business processes that require specific expertise or mental skills such as the ability to recognize patterns, make decisions, or solve problems are the least likely to be outsourced. These processes are high-value added functions that involve high-skilled workers who are costly to recruit, manage, and maintain. The analysis of computer programming and financial services such as accounting demonstrated that while these functions may be more easily outsourced as a result of their rule based nature or universal language, they are also professions that enjoy greater autonomy and may therefore resist workplace change.

If manipulative task, low-value added, business processes are most likely to be outsourced, it follows that companies in pursuit of further cost savings may continue to broaden the extent to which they outsource business processes. How this will unfold, as demonstrated by SAIC and the analysis of sectors of BPO, is an organizational function of technology, politics, and corporate culture. Thus, how companies deal with such issues as worker resistance and politics will determine to a large extent their ability to apply the logic of the division of labor to higher skilled tasks. Consulting firms, such as SAIC and Accenture, absorb IT professionals, HR executives, and accountants as part of their contracts which allows them to take advantage of expertise on future accounts. Meanwhile, as work processes are absorbed into a new organizational structure they can

be divided or relocated through computer platforms such as ERP software that standardize numerous functions. Thus, management is able to increase control of the labor process while job data that shows net job growth in these occupations provides a temporary buffer to political problem of job loss. The question becomes now, how long does this process continue? This represents an important policy issue that must be further investigated as outsourcing contracts that transition employees may have appear as of little consequence when in fact they help institutionalize the division of higher skilled labor.

What the recent wave of outsourcing has shown is that globalization can impact white-collar professions in the same way it has affected production jobs.

If the assembly line symbolized the first round of outsourcing then computer keyboards must symbolize the outsourcing of services. A great deal of attention has been focused on the impact of BPO has had on U.S. workers, however a less accentuated argument concerns the impact on foreign workers. Some claim that there is a “moral case” for outsourcing and argue it helps facilitate economic growth and the reduction of poverty in developing countries. China and India, where much global poverty is concentrated, have opened to trade and foreign direct investment and are currently growing economically at a rate of 8 and 10 percent, respectively.

This argument is by no means a newcomer to the wider debate over globalization, but the broader scope of service sector work that can be outsourced suggests a qualitative improvement in the nature of work going offshore. When one considers that outsourcing of manufacturing work included a sufficiently large history of the circumvention of labor and environmental standards (a central tenet of the antitrade, anti-globalization, anti-sweatshop protest made clear in the Seattle protests) do we not arrive at the conclusion

that BPO is a positive phenomenon for workers in the developing world? The initial poll cited in this study that among Americans earning more than \$100,000/year support of free trade has dropped from 57 percent in 1999 to 28 percent in 2004 in my opinion demonstrates a double standard in globalization. Some seem to support globalization when the result is cheaper cars, clothing, or stereo equipment, but when the outcome includes gains to other countries at our expense support wanes and people raise the protectionist flag.

Policy

Nonetheless, the analysis of BPO demonstrates that the outsourcing of white collar jobs will continue and may increasingly affect higher skilled workers. Public pressure has resulted in a wave of legislation aimed at preventing work from going overseas, though most policy suggestions have focused on government contract work. Upon discovering that teleworkers in Mumbai were fielding customer service calls on New Jersey's welfare and foodstamp program, senator Shirley Turner in 2002 introduced a bill prohibiting the use of foreign workers on state funded projects. Likewise, Senators George Voinovich and Craig Thomas added an amendment to the 2004 Transportation and Treasury appropriations bill that implements the same measure. Alternative legislative measures include the USA Jobs Protection Act, which prevents US companies from hiring foreign workers when domestic workers are available, and the Jobs For America Act which states that companies must give three months notice if planning to outsource any work overseas.

These measures are positive steps although it seems unlikely that they will have any significant impact on the reduction of the use of overseas workers. Furthermore, such

policies only deal with one side of the issue and ignore the impact that outsourcing has on individual workers. Instead, trade policy and domestic policy should focus on labor rights initiatives. Global institutions should focus policy on adding greater transparency to disparity in labor rights, ensuring that globalization *can* be a mechanism of growth and not one of exploitation.

At the national level, extending the Trade Adjustment Assistance program from workers displaced by NAFTA factory closings to workers in service occupations affected by outsourcing should be a top priority. Further, policy should focus on narrowing the capital-labor divide by forcing companies to internalize the economic cost of their decision to go offshore. An effective way of enacting such a measure would be to require that companies cover displaced employees' salaries for a set period time, in addition to investing in training, portable pensions, and insurance to help during the transition. Finally, while skilled workers may lose their jobs as a result of outsourcing, it is displacement in the lower skilled service occupations that has the greatest negative impact as these workers have less portable skills to find comparable work. This indicates that we must reconsider how we think about education in the United States. Instead of viewing it as a period of formation early in life that results in a job, education and training need to be more fully integrated as a continuous process into work.

Agenda for Future Research

As noted in the discussion of methodology, there were a number of constraints that limited my ability to gain data about BPO. These included common limitations such as financial and time based considerations, in addition to limitations specific to the study of an emergent trend with little data. The most notable challenge I faced was limited

cooperation by potential research informants. While this can be attributed to the political unpopularity of outsourcing, it is also a factor of the nature of business. I feel very fortunate to have had the opportunity to gain the insight of senior level executives who have little time in their day for graduate research.

That being said, this study has unearthed two important issues for further research in the study of business process outsourcing. First, research should focus on the level of skill involved in business processes that are outsourced. This study provides a simple predictive typology upon which future research may proceed that argues that outsourcing will occur most frequently at lower level tasks that involve the basic manipulation of information while business processes that require interpersonal and mental skills are less likely to be outsourced. Business processes that require interpersonal communication between consumers and companies are likely to create a political risk some companies are unwilling to take. On the other hand, business to business processes that require interpersonal skills will depend on how workers at the point of production react. Tasks that require expertise and mental skills are the least likely to be outsourced as workers in these positions exercise more autonomy than other workers are more likely to resist change.

Next, how companies pursue outsourcing arrangements must be further investigated. There are a number of various outsourcing arrangements companies can pursue such as contracting with one vendor vs. multiple vendors (multisourcing), establishing a foreign subsidiary to do work vs. subcontracting, and of course the decision of what process if any go offshore. The common practice of transitioning employees from firm to service provider deserves closer investigation as it allows large companies such as Entergy to shed employees while outsourcing vendors such as SAIC

happily absorb them for future use. There must reach a point where SAIC, Accenture, and other companies no longer need additional staff, thus it seems highly unlikely this transitioning will continue. Detailed case studies of such companies provide one possible examine this issue more.

A possible research model that would allow both of these propositions to be further explored is a comparative case study of two outsourcing contracts in the same industry. This idea emerged during my research of SAIC and Entergy. I discovered a utilities company located in Texas, TXU, who like Entergy has implemented an outsourcing contract but in their case it is a comprehensive outsourcing arrangement that involves IT, finance and accounting, human resources, and other functions. This is an especially powerful approach as the basic features of both of these companies are the same with the exception of what they outsource and how they go about it.

Finally, research that can quantify the BPO phenomenon is also in order at both the level of aggregate statistics that measure job losses in addition to numbers associated with specific contracts such as the SAIC-Entergy. Such data will improve our ability to evaluate the extent that BPO occurs within occupations and across industries. In the long run, quantitative data will shed more light on the true impact of the globalization of white collar work.

REFERENCES

- Anderson S., Cavanagh J., Hartman C., Klinger S. and Chan S. (2004). "Executive Excess 2004: Campaign Contributions, Outsourcing, Unexpensed Stock Options and Rising CEO Pay." *11th Annual CEO Compensation Survey*. Institute for Policy Studies and United for a Fair Economy.
- Aron, Ravi and Singh, Jitendra (2004). "IT Enabled Strategic Outsourcing: Knowledge Intensive Firms, Information Work, and the Extended Organizational Form" <http://knowledge.wharton.upenn.edu/papers/1071.pdf>
- Aronowitz, S., and W. DiFazio. (1994). *The Jobless Future: Sci-tech and the Dogma of Work*. Minneapolis: University of Minnesota Press.
- Attewell, P. (1987). The Deskillling Controversy. *Work and Occupations* 14, 323-46
- Babbie, Earl R. (1975). *The Practice of Social Research*. Wadsworth Publishing Company
- Bardhan, Ashok Deo, and Kroll, Cynthia. (2003). "The New Wave of Outsourcing." Fisher Center for Real Estate and Urban Economics. University of California, Berkeley
- Beechey, V. (1982). The sexual division of labour and the labour process: A critical assessment of Braverman. In S. Wood (Ed.), *The degradation of work? Skill, de-skilling and the labour process*. London, UK: Anchor.
- Bell, D. (1973). *The Coming of Post-Industrial Society: A Venture In Social Forecasting*. New York: Basic Books.
- Bhagwati, J., Panagariya, A., and Srinivasan, T.N. (2004). "The Muddles over Outsourcing." *Journal of Economic Perspectives*. Fall
- Braverman, H. (1974). *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.
- Brandel (2005). "HR Gets Strategic" *Computerworld*. January 31.
- Castells, Manuel (2000). *The Rise of the Network Society*. Blackwell, Oxford.
- Clark, Jon, Modgil Celia, and Modgil, Sohan (eds.) (1990). *Anthony Giddens: Consensus and Controversy*. London: Falmer Press
- Copeland, Lee (1999). "GM Strikes Deal To Outsource Accounting" *Computerworld*. Vol. 33, Issue 48

- Creswell (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications. Thousand Oaks California
- Despeignes, Peronet (2004). "Poll: Free Trade Loses Backers" *USA Today*. February 23.
- Form, W. (1987). On the degradation of skills. *Annual Review of Sociology* 13, 29-47.
- Gamble, Richard (2005). "Boosting the Bottom Line" *Outsourcing Essentials*. Vol 3, No.1. Spring
- Gentle, Chris (2003). "The Cusp of a Revolution: How Offshoring Will Transform the Financial Services Industry" *Deloitte Research*
- Gereffi G. and Korzeniewicz M., editors (1994). *Global Commodity Chains and Global Capitalism*, Westport: Praeger.
- Gereffi, G. (2004) "The Global Economy: Organization, Governance, and Development" in *Handbook of Economic Sociology*. Neil Smelser and Richard Swedberg, editors. Princeton University Press and the Russell Sage Foundation.
- Global Insight, "The Impact of Offshore IT Software and Services Outsourcing on the U.S. Economy and the IT Industry" Information Technology Association of America. March, 2004
- Greenbaum, Joan (1999) "Spread over time and place: Redivided Labor and the Role of Technical Infrastructure" in *Rethinking the Labor Process*. Peter Meiksens, Mark Wardell, and Thomas L. Steiger, editors. State University of New York Press
- Greenguard, Samuel (2004) "Putting it all together" *Workforce Management* October, Vol 83.
- Harvey, David. (1990). *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Blackwell.
- Hermanowicz, Joseph (2002). "The Great Interview: 25 Strategies for Studying People in Bed" *Qualitative Sociology*, Vol. 25, No. 4, Winter
- Hill, Richard. (1989) "Comparing transnational production systems: the automobile industry in the USA and Japan." *International Journal of Urban and Regional Research*.
- Hirschhorn, L. (1984). *Beyond Mechanization: Work and Technology in a Postindustrial Age*. MIT Press, Cambridge, MA.

- Hopkins and Wallerstein (1982) *World Systems Analysis: Theory and Methodology*. Sage Publications.
- Kirkegaard, Jacob (2004). "Stains on the White Collar?" Institute For International Economics. Forthcoming:
<http://www.iie.com/publications/papers/kirkegaard0204.pdf>
- Korzeniewicz, M. (1994). "Commodity Chains and Marketing Strategies: Nike and the Global Athletic Footwear Industry". In G. Gereffi and M. Korzeniewicz, eds. *Commodity Chains and Global Capitalism*. Westport, CT: Greenwood Press.
- Kraft, P. (1979). The industrialization of computer programming. In *Case Studies on the Labor Process*, ed. A. Zimbalist, 1-17. New York: Monthly Review Press.
- Landis, Kenneth et. al (2005) "Calling a Change in the Outsourcing Market," *Deloitte Consulting*. April
- Littler, C.R. (1982) *The Development of the Labour Process in Capitalist Societies*. London: Heinemann.
- Maitland, Alison (2002) "Giant leap for human resources" *Financial Times*. March 27.
- Mann, Catherine (2003). "Globalization of IT Services and White Collar Jobs," Policy Brief PBO 3-11, Washington DC: Institute for International Economics.
- Marx, Karl. (1978) *The Marx-Engels Reader* (edited by Robert Tucker)
- McCarthy, John. (2002). "3.3 Million US Jobs to Go Offshore." November 11, Cambridge, Mass.: Forrester Research, Inc.
- McCracken, Bruce (2004). "The Debate Over Offshore Service Continues" *Customer Relationship Management*. December, p.17
- McDougall, Paul (2005). "First Quarter Contracts Blur Health of BPO Market". *Information Week*. May 2, Issue 1037.
- Meyer, John and Rowan, B. (1977). "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83:2:340-63
- Miller J. and Perucci R. (2004). "Time for an Economic Bill of Rights?" *Contemporary Sociology: A Journal of Reviews*. 33:1
- Morgan, Davidd (1997). *Focus Groups as Qualitative Research* Sage Publications. California

- Penn, Roger and Scattergood, H. (1985). "Deskilling or Enskilling?: An Empirical Investigation of Recent Theories of the Labour Process" *The British Journal of Sociology*, Vol. 36, No. 4, pp. 611-630.
- Perry, D., Watkins, A. (1977). *The Rise of Sunbelt Cities*. Beverly Hills, CA: Sage.
- Piore, Michael and Sabel, C. (1984). *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic.
- Read, Bill (2004). "Gain a Competitive Edge Through Supply Chain Outsourcing" *CapGemini*. www.capgemini.com
- Ricardo, David (1817). *On the Principles of Political Economy and Taxation*. J.M. Dent & Sons.
- Ritzer, George. (2000). *The McDonaldization of Society*. Thousand Oaks, CA: Pine Forge Press.
- Sassen, Saskia. (1990). *The Global City: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.
- Sayer, Andrew; Walker, Richard A.(1992). *The New Social Economy: Reworking the Division of Labor*. Cambridge, Mass. and Oxford: Blackwell.
- Schoenberger, Erica (1994). "Competition, time and space in industrial change." In G. Gereffi and M. Korzeniewicz, eds. *Commodity Chains and Global Capitalism*. Westport, CT: Greenwood Press.
- Schwartz, Ephraim. (2005). "BPO Battle Heats Up: Microsoft Eyes BPO takeover, Homing in on Targeted Niche Solutions" *Infoworld*. February 28, 2005.
- Scott, Judith G. (2003) "Human Resources Outsourcing Gaining Traction Fast" *Merger and Acquisition*. Baird Report, Winter 2005.
- Smith, Adam. [1776] 1976. *An Inquiry into the Nature and Causes of the Wealth of Nations*, 2 vols. Oxford: Clarendon Press.
- Songini (2004) "SAP Implementation Contributed to HP Shortfall" *Computerworld*. September 6. Vol 20, No. 18.
- Stigler, G. (1951). "The division of labor is limited by the extent of the market." *Journal of Political Economy*.
- Stokes, Bruce (2004) "And Away They Go" *National Journal*, March 27, Vol. 36 Issue 13, p940

- Sturgeon, Timothy (2002). "Modular Production Networks. A New American Model of Industrial Organization." *Industrial and Corporate Change* 11, 3: 451-496.
- UNCTAD (2003). "Business Process Outsourcing Services for Economic Development." E-Commerce and Development Report 2003. United Nations publication: New York & Geneva. Chapter 5.
- United States Government Accountability Office (2004). "Current Government Data Provide Limited Insight into Offshoring of Services". GAO: September
- Vallas, Steven P. (1999) "Rethinking Post-Fordism: The Meaning of Workplace Flexibility." *Sociological Theory* 17:1 March.
- Wallerstein (1974) *The Modern World-System*. Academic Press
- Jonathan Weisman, (2004) "Democrats Can't Get Firm Grip on Jobs Issue", *The Washington Post*, February 19, Final Edition, A Section; A01
- White, Tom (2001). "Finance & Accounting Outsourcing: The Solution for the New Economy" *Corporate Finance*. January/February 2001.
- Zuboff, Shoshana. (1988). *In the Age of the Smart Machine*. New York: Basic.

APPENDIX

Interview Introduction, adapted from Hermanowicz 2003

“This is a study about the offshore outsourcing of service jobs. The questions I would like to talk about deal with what kind of jobs can be outsourced and how the process is organized. Some of the things I will discuss, ask you to reflect upon your personal experience and often involve making judgments that will touch on various professional and related topics. Your participation in this study will be used in a Masters level thesis in sociology at the University of New Orleans. Interviews are tape-recorded, and this simply provides for accurately keeping track of information. Upon completion of the study the tapes will be destroyed. Your participation in this study is greatly appreciated and important. However, should you at any time wish to stop, you may do so without prejudice to you, and at any time you should feel free to ask me questions concerning the interview or the study.”

VITA

David Johnson was born in Syracuse, New York and raised in Fort Walton Beach, Florida. He received his B.S. in Business Administration (Economics & International Business) from the University of Southern Mississippi and will continue his doctoral studies in sociology at the University of Georgia. His research interests include globalization, organizations, and consumerism.