The Growth and Transformation of the Temporary Job Market

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The temporary job market is likely to grow as the economy evolves. This descriptive analysis discusses from a labor supply and demand perspective the determinants of temporary employment, where it developed, who it pertains to, and in which industries and occupations it is utilized. In addition, statistical analysis provides an insight into the temporary employment form in international labor markets. This provides a framework to predict the future of temporary employment as the economy evolves.
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A. Introduction & Definitions

In the past three years, temporary employment has been receiving more attention from the most respected and well-read business and economic publications\(^1\) in the United States in regards to its anticipated potential growth and usefulness as an economic indicator. With that said, the temporary employment job market encompasses many different employment arrangements. It may include independent contracting, individual consulting, project assignment, or a work agreement between a laborer and a firm for a defined period of time.

This research encompasses the many forms of temporary employment and the principles that determine its use. We divide these determinants into the labor demand and labor supply side. From this conceptual overview we construct an economic framework for understanding the growth of temporary employment within the United States labor market from the 1970s to modern day 2010s. This analysis is complimented by a foreign comparative study on the temporary employment market in Sweden, France, and Spain. Using the conceptual properties of temporary work, the historical analysis of domestic and foreign labor markets, this study concludes by summarizing key findings and then applying this knowledge to current and future economic events.

From this research construct, this work attempts to answer the following questions: What is the temporary job market? Specifically, how has it developed, who are the conceptual players, and what factors drive contingent work, especially today? Lastly, how will the popularity of temporary work change in the near future as the economy evolves? The goal of this paper is not to argue that temporary work is better than permanent work, nor is it to persuade that the United States will be filled of temporary work. The objective of this paper is to analyze the use of temporary employment and give an educated prediction of the temporary workforce as time continues.

In this research we will explain the process of a typical temporary employment arrangement. A part of this process entails temporary staffing agencies. This agencies match workers with companies that have temporary openings. Therefore these agencies act as an intermediary between a temporary worker, the labor supply, and a firm, the labor demand.

There are many definitions referring to temporary employment throughout this research. The amount of different temporary employment formats and cultural differences create variations in the exact wording and classification of temporary employment. In prior studies, temporary work can also be referred to as contingent work; therefore, a temporary worker may be referred to as a contingent worker. Contingent work is “Part time, temporary, or contracted employment utilized in emergencies, or for a specific short project or job” (BusinessDictionary.com). These two references entirely overlap.
In this study, temporary employment, the temporary staffing industry (TSI), temporary work, fixed-term or short-term employment will all refer to the same meaning. This does include independent workers and contracted employees.

B. Determinants of Temporary Work

There are factors that make temporary employment attractive from both a labor supply and labor demand perspective. Below, I discuss each of these labor supply and labor demand factors. Together these factors will build a determinant model for temporary employment.

There are many determinants of temporary employment from the firm’s perspective. The first and most important is employment flexibility. Firms are in business to operate as efficiently as possible. Throughout modern history there have been macroeconomic cycles in economies. As an economy has expansionary and contractionary periods the demand for a firm’s products and services fluctuates. During an expansionary period, individuals in an economy will have more disposable income to spend on goods and services, giving a firm the incentive to increase its inventory. In order to adjust inventory levels, even during a contractionary period, a firm will likely need to adjust its employment level. This process is called employment flexibility: the intensity and ease of quickly adjusting levels of employment in a firm based on external forces.

Temporary employment is easier to adjust employment levels. The alternatives to temporary employment would be indefinite part-time and permanent full-time employment. Typically these latter two employment forms have the higher associated
firing costs. Additionally, in some European economies there are also labor protection laws that protect indefinite and permanent employees with less protection on temporary employees (Feldman, 1995; Holmlund, 2002).

Temporary employment provides the maximum employment flexibility, which gives firms a strategic advantage in decision making. All firms face competition, either that from other firms or from high consumer expectations. In order to compete best, a firm will try to anticipate how much it needs to produce, or, in other words, the proper inventory level. By using temporary workers rather than permanent workers, a firm then has more ability to make riskier decisions in anticipating changes in inventory levels (von Hippel, 1997; P. Hughes, personal communication, March 19, 2014). Then, if the firm fails to predict the appropriate inventory level it may need to recover by temporarily cutting costs, and it is easier to fire temporary employees than to fire permanent employees.

This principle of flexibility also extends to either a firm’s uncertainty about competitor positioning. When a firm is unsure of the magnitude of these forces, such as the merger between two competitors, it will be hesitant to hire new employees. In order to continue production a firm may seek to hire temporary workers instead, knowing that this short engagement gives it the most flexibility, pending a large change in the market.

Flexibility from temporary employment can further benefit a firm facing production cycle fluctuations. Within certain industries and occupations, there are circumstances that make temporary employment more attractive than permanent employment. As for an industry with naturally higher levels of production uncertainty, such as construction, employers use temporary workers to adjust to changes in labor
demand. An example would be a construction company adding a handful of workers in the last month of a year-long project to complete the job within the deadline.

Another example of this is could be a construction company being awarded government stimulus spending to construct a bridge. The stimulus money unexpectedly changes production levels and thus changes labor demand in the short-run. Once the bridge is complete the labor demand returns to its original state. This specific example speaks to how investment in industries through stimulus aid can increase temporary work.

Finally, temporary employment may be a way to fill gaps in employment. Employment gaps may derive from maternity leave, military leave, or other personal reasons pertaining to: disciplinary, illness, and civic duty. A firm will utilize a temporary worker to fill in the gap rather than hiring a permanent full-time employee. An example of an occupation from temporary employment is a substitute school teacher. The substitute performs the role of a permanent teacher for the duration needed, at which point they may fill another employment hole. In both examples we see that employment flexibility, provided by temporary employment, is beneficial to firms in multiple industries (Houseman, 2003).

The second determinant of demand for temporary work is driven by a trend in organizations designed to help firms to become more agile. This increased agility helps firms take advantage of opportunities such as new technologies, new products, or new processes. Firms periodically will “downsize” their operations and employee count. Through downsizing a firm becomes leaner; it has lower labor costs and fewer decision-making stakeholders. To maintain a smaller size the work once performed by permanent
employees is then often time replaced with an external solution. Temporary workers are used by companies that downsize in order to continue their business operations while leveraging cheaper labor (von Hippel, 1997; P. Hughes, personal communication, March 19, 2014).

The third determinant of temporary work is quite similar to the second. Economists and firms focus on the total employment cost associated with labor, rather than just the wage. There are a number of costs of employing a worker. First, a company has to search for appropriate job candidates. Money is spent on recruiting—through travel, job fairs, and interviewing. A company will spend money on hiring through time dedicated to communication, administration, and human resources. Often times a company will incur costs for training and development of new employees. Aside from salary, a permanent full-time employee will receive a benefits package. These are the total costs associated with a permanent full-time employee. In contrast, the total employment cost of a temporary worker is primarily their paid salary. Because of the nature of the temporary staffing industry, recruiting costs are minimized and absorbed by temporary staffing agencies. Firms can increase profits by avoiding costs of a permanent worker and rather use a temporary worker (von Hippel, 1997).

A majority of firms throughout all industries and geographies employ a mix of permanent and temporary workers, with a high concentration in permanent (von Hippel, 2000).

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2 In respect to expert labor economists we understand that these are not all the total labor costs associated with a permanent full-time employee; however for the point of this research it suffices.

3 There may be small administration and training costs with hiring a temporary work.

4 In economics, productivity is a main indicator of cost savings. Rather than looking at total costs, productivity based on pay is important to observe. Criticisms have been made in this research that a temporary worker may have lower human capital and from a lower quality worker the productivity is then lower. Although this study does capture lower levels of human capital in temporary workers, the firm’s use of a temporary worker of equivalent job skills and productivity is held constant in theory. In other words, a firm will only use a temporary worker to replace that work of a permanent worker if they are capable.
The percentage of temporary workers in the economy is likely to have implications permanent workers; this is our fourth determinant of temporary work. Specifically, the availability of temporary workers is likely to lower the bargaining power of permanent employees during salary negotiation.

The Hicks-Marshall law states that, all else equal, the elasticity of demand for labor (or wage sensitivity of employers) will be greater: (1) the easier it is to substitute other factors of production for labor; and, (2) and the more elastic is the supply of other factors. What this means is that permanent employee labor demand is decreased if there are alternatives to traditional labor employment, such as temporary employment solutions. The lower labor demand given the option of temporary work lowers the bargaining power of permanent, full-time workers. Firms will use temporary workers for the productivity they bring and also to create a downward pressure on wages for permanent workers (Houseman, 2003; Bentolila, 1994).

The fifth determinant of demand for temporary work pertains to the freedom a temporary worker provides for a firm. Temporary work allows a manager strategic governance over assigning and delegating tasks. When hiring a temporary worker, that individual comes into the firm without two things. That is he or she enters without a biased opinion of the firm’s future direction and other work commitments. This makes for a great opportunity to assign work that is futuristic or of second and third priority (Miller, 2012).

A sixth determinant of demand for temporary work comes from the uncertainty a firm faces when hiring a job candidate. When interviewing a candidate there are limitations to knowing the marginal value they will add to the firm’s total productivity
(von Hippel, 1997; Olsen, 2011). Given the implicit penalties incurred with firing permanent workers, a firm may introduce potential employees as temporary workers when it can and evaluate their performance and fit. If the temporary worker is well liked then the firm may add that individual. Otherwise, the firm avoids the associated costs with firing and does not continue the employer-employee relationship. This is known in the business field as ‘job screening’ (P. Hughes, personal communication, March 19, 2014). This broader concept may include a young candidate through the form of an internship or a co-operative job agreement.

These six determinants are among the most important determinants of demand for temporary labor. The comparative value of a temporary employee added depends on the industry and nature of the work. The benefit of temporary employment on labor flexibility helps firms to better compete and manage during unstable macro and micro conditions. Temporary work gives a firm ability to become more agile as they perform the same operations of internal employees but normally at a lower total employment cost. Regardless of downsizing, a firm may incorporate temporary workers to lower costs.

There are also several key factors that make temporary employment attractive from a labor supply perspective. This segment covers three conceptual factors that motivation individuals to select temporary work over alternative employment types.

The first of three determinants of temporary work can be thought of as a “stepping stone” model of employment. The stepping stone concept pertains to a worker seeking to enter either a certain occupation or company with hope to turn the temporary role into a permanent arrangement (Booth, 2002). Under the conditions that a potential worker is not offered a job in their desired occupation from their ideal company, they may select the
exact same role through a temporary position from a less desirable company to gain direct work experience. After a period of time this temporary arrangement will make them likelier to be hired with their desired company because they have developed appropriate human capital. Alternatively, for those individuals seeking to work full-time within a particular occupation, temporary work may also help. The individual may choose to take a temporary assignment from the company hoping to get exposure to the company and likely switch into the desired role as a permanent employee. These two scenarios are more likely to occur with temporary work versus permanent work for two reasons. One, temporary work provides more mobility from one role to another. Two, temporary work allows for short-term evaluation. This is important because many workers may not get a desirable job offer due to timing: the number of talented candidates outnumbers the openings in this company or for the specific occupation. The more mobile a candidate is, the more they increase their opportunities.

Those looking to use temporary employment to solidify a permanent role enjoy the benefits from the stepping stone approach. However, not all employees are seeking a future permanent role. Individual preference about work flexibility, the second determinant from a labor supply perspective, is probably the most common reason why workers desire temporary employment.

Temporary workers may prefer to enroll into this type of employment for one of six reasons based on their work preference. The first reason, most temporary work offers a high level of flexibility. Schedule flexibility can boil down to the time of day and days of week they work. For independent contractors and those working on project based work, they often have control of their schedule. Other temporary workers enjoy that
scheduling flexibility allows them to work for a period of time and then enjoy an intermission from work. While true for some forms of permanent employment, some temporary employment such as freelancing gives an individual control over the total number of hours they work. This gives a worker the ability to work more or less than a traditional 40-hour week (Miller, 2012). Additionally, a worker often balances hours between working and leisure. A temporary worker choosing temporary employment rather than permanent employment may use the flexibility in their job to spend more time at home. Those workers with children or sick family members can use temporary work to dedicate at home (von Hippel, 1997).

The second preference overlaps with the first determinant; temporary jobs offer a great opportunity for increasing human capital. Those who are cycling through temporary jobs receive job-specific training at each new position. Over time, lower-skilled temporary workers may be able to acquire human capital such as typing, answering calls, etc. (Lane, 2003; Booth, 2003).

The third reason for preference for temporary employment is the variety that temporary jobs offer. If a worker consistently uses temporary work for employment arrangements then likely they will most likely be employed in a variety of roles. These roles may be different occupations within an industry, the same role within multiple companies or even the same role within many industries. A worker may value the change of scenery associated with frequent changes in contingent employment (Miller, 2012; von Hippel, 1997).

The fourth labor supply determinant of temporary work also has to do with preferences – in this case for type of work. An example of this is a very high-skill worker
that prefers to be exclusively a “turn-around” CEO. This would entail them working under conditions to improve the structure or profitability of a firm. Once they accomplish this goal the individual changes firms to repeat the process. Talent is able to dictate their work and colleagues; “talented people are going independent because they can choose what to work on and with whom to work” (Miller, 2012).

In addition to preference-based decisions about timing or type of work, some workers may choose temporary work because of timing or scheduling constraints. The third determinant of temporary work is the short-term demand a worker has for employment. The nature of temporary work allows for short-periods of employment. This is important to those that have other commitments or plans. An individual may agree to a temporary work arrangement if they are waiting for a better opportunity to open. For a high school or undergraduate student temporary work is used during breaks of schooling for internships or sources of income. The second group this pertains to is students waiting for graduate school, or those studying for graduate level exams. For example, a hopeful law student may take time to work while preparing for the LSAT. An example may be those individuals looking for permanent work and take a temporary position in the meantime.

These are some of the primary determinants of labor supply in the temporary employment market. Temporary jobs provide to the worker an avenue for future permanent employment arrangements. In some situations temporary work may be generally preferred in the labor market, and not just a complement to permanent employment. The short-term of temporary work and its flexibility allows it to be viewed as a practical form of employment for those looking for work during job intermissions.
These determinants of labor supply apply to high and low skilled workers and are applicable to multiple industries and occupations.

Together with the labor demand determinants discussed earlier in this section, these labor supply determinants complete our conceptual model of temporary employment. In subsequent sections these conceptual principles will provide a foundation for analyzing the labor markets in the United States and the Europe.

Despite the claims made to education, as will be thoroughly continued below, education has increasing returns on earnings with a minor exception. The value that a contingent worker has in a long-run, stable, and educated industry is less than the value that a contingent worker in a short-run, volatile, and physically capital intensive industry. Adding the latter worker can perhaps more often yield higher savings and is much less predicted than in the former industry type. This is a key takeaway from our understanding of what drives temporary work.

C. Temporary Employment Growth in the United States since 1970

To better predict the future of temporary work in the U.S. it is important to analyze its history to date. This encompasses the origins of the industry, its major growth periods, and the factors most likely causing this growth, giving us an opportunity to analyze current conditions.

The origins of temporary staffing in the United States labor market started to the 1920s. According to Theodore (2002) popularity in leasing out workers was fueled just after World-War II. The temporary staffing industry (TSI) had gradual growth prior to,
and very strong growth at the opening of the 1970s throughout the 1990s. This is best summarized by Theodore (2002): “TSI employment doubled during the 1970s; more than doubled again between 1979 and 1987; doubled again between 1987 and 1994; and in the second half of the 1990s, continued to register double-digit annual growth rates.” This section will explore the causes of this growth pattern using previously performed research and the Current Economic Statistics (CES) database from the Bureau of Labor Statistics.

The growth of temporary employment throughout the 1970s is often attributed to macroeconomic fluctuations. The fluctuations in the economy had created a need for matching employment against unpredictable demand conditions. As discussed in section B, temporary employment helps provide firms flexibility in combating fluctuations. Therefore, the temporary employment industry was considered susceptible to business cycles in the 1970s. In the expansion period of 1970-1973, TSI employment growth grew just 4.9%. After an industry “shakeout” and a second expansion period during 1975-1979, the TSI employment grew 23.7% (Theodore, 2002). Here temporary employment agencies were learning the ways to survive cycles which eventually led to increased profits.

The 1980s proved to be a different era; this was a decade of continual maturation of temporary clerical work (referred to as pink-collar) and the opening of the white-collar labor market to temporary workers. Temporary employment growth in this period was attributed to de-regulation, union power erosion, and a changing labor supply. Throughout this decade there were two distinct economic periods. Those periods were the recession of 1981-1983 and an expansionary period from 1983-1990. Over both periods there was growth in employment levels and revenues; 9% and 15% respectively
(Theodore, 2002). Over the 1980s the TSI has strengthened its cliental connections. The attractiveness of temporary workers in some occupations made sense for firms to utilize cost-wise due to the deregulations and de-unionization occurring in the United States’ economy during 1980s. As a firm tries to keep costs down it limits the number of its core employee, contractor of union. Unions were going through a dynamic change by the 1980s (Golden, 1992). The arrival of the Occupation Safety and Health Act (OSHA) in 1970 started having its effects. By the 1980s OSHA gave workers fewer reasons to join a union as proper worker conditions and ‘overtime’ became mandated by federal law (von Hippel, 1997). Another reason that unions fell were due to the constant strikes; these stoppages adversely impacted production. Given the downturn in the first part of the 1980s, followed by the upturn in the second part of the 1980s, unionization bargaining power dwindled. With lower bargaining power from unions this gave firms more ability to shift employment focus onto nontraditional, contingent workers (Golden, 1992).

Additionally, during the 1980s labor supply began to change dramatically. Compared to previous decades in the United States, there were more women, youth\(^5\), and older workers (Golden, 1992). As discussed in section B, these may be individuals who naturally have more demand for working infrequent and fixed employment periods.

From 1981-1987 it was estimated that the 5.5% of 2 million annually added jobs in the US were temporary jobs. Unsurprisingly, the main purpose during this period of temporary work was to promote flexibility for firms. Although temporary work at this time was estimated to be almost 1% of total private employment, its volatility in growth changes versus permanent employment types indicates it also served as a buffer against

\(^5\) Youth ages are defined as 16-24 years old (Houseman, 2003)
economic fluctuations (Golden, 1992). This would change slightly heading into the 1990s.

Temporary employment rapidly grew in all OECD countries throughout the 1990s. The EU especially grew over this decade, from doubling in some countries to growing five times in others. Fast growth was also the case for temporary employment in the United States\(^6\). Temporary employment grew from January 1990 to January 1999 from 1.16 million employees to 2.36 million employees, a percentage change of 104%. As of January 1990, temporary employment was just 1.06% of total U.S. labor employment. As the whole labor market grew, temporary employment growth outperformed total US employment, which grew a healthy 17%. For an industry that accounted for a mere 1% of employment the TSI was responsible for 6% of the new jobs net-added. At the end of January 1999, TSI was approximately 1.85% of total employment (CES, 2014). Figures 3.1 and 3.2 show the growth and changes of temporary employment from 1990-2013.

\(^6\) Temporary employment is defined by the Bureau of Labor Statistics as Temporary Help Services
The gender distribution of the workforce changed with the growth of temporary work. In January 1990 there were approximately 652,000 female temporary employees, comprising 56% of the temporary workforce. Over the decade women had moved into temporary employment with 543,000 new employees in January 1999—an 83%...
percentage change. However, this growth was overshadowed by the larger entrance of men entering temporary employment, which had accounted for 55% of the new jobs net-added. This movement of male workers entering lowered the percentage of workers that were female to roughly half. However, female temporary workers were not usually employed in the same roles as were males (CES, 2014).

This impressive trend begs to ask what was fueling the growth. Growth among the temporary agencies boomed throughout the 1990s thanks to three fundamental changes. Those changes were in reputation, market structure, and external development.

The first elemental change was the increasing reputation of agencies. The agencies “operated often in a legal grey zone” at the beginning of the 1990s according to Neugart (2006). From a foreign perspective, in the beginning of 1990s temporary agency work in countries like Spain and Sweden was described as illegal (Neugart, 2006). To improve its reputation, the TSI became more complex. The sophistication in the agencies’
process helped build their reputation from two ends. The first level of sophistication was the firms’ new focus on temporary work relations. Examples pertaining to this end would be carrying out ethical practices, negotiating collective bargaining agreements, and creating advertising campaigns (Neugart, 2006). The second level of sophistication came from the agencies’ attention to their role in firms and essentially building relationships with clients. By further adapting to the ways firms operated, the agencies decreased communication failures. This allowed them to be better equipped to understand the needed labor requirements for a client’s firm (Neugart, 2006).

The second element of growth focuses on the competition shift between market players. With foreign markets in mind, during the 1990s the overall industry consolidated. For example, by 1998 the top five agencies accounted for over 50% of turnover of 11 of the members states of the EU (Theodore, 2002). The largest players in the US temporary staffing industry such as Manpower and Kelly Services at the time were also well developed in foreign temporary markets competing with European players such as Randstad and Adecco (Theodore, 2002; Bentolila, 2002; Pierre, 2012). The consolidation of temporary employment agencies led to a drop in competition and a rise in market power. This gave the surviving firms a large pool of applicants. With more applicants and therefore more overall talent, this led to an overall increase in efficiency of the few firms to better align high-skill workers to higher-skilled contracts assignments (Neugart, 2002).

In contrast, the number of agencies in the United States increased from around 15,000 to 21,700—a 50% growth (Theodore, 2002). The many players entering the industry saturated the market, driving profit margins down and increasing
competitiveness. The sustained growth periods throughout the 1970s and 1980s had made entering the temporary employment agency market attractive.

The third element explaining the growth of temporary employment in the 1990s is one of technology and development. The continual improvement in information and communication technology may have also been a cause for the surge in temporary agency work. Products such as online job vacancy and search programs lower the costs associated with discovering an employment opportunity. As the main function of a temporary agency is to match a worker to an employment opportunity, these products lowered the costs which led to agencies prosperity. The addition of company websites allowed companies to better improve their communication of job vacancies. Altogether there was more information available, better accessibility to existing information, as well as an easier way to communicate information (Neugart, 2006).

In the early 2000s, as the TSI faced decreasing marginal growth returns and evolved towards a maturation stage, the amount of research and attention likewise seemed to dwindle. For this reason I will support my discussion of recent market developments statistically using the CES (BLS, 2014), and theoretically referring to points made addressed in section B.

In the 2000s, two major economic downturns that occurred: the recession of 2001-2002 and the recession of 2008-2009 (BLS, 2014). From the beginning to the end of the decade total US employment shrank by 1% to approximately 129.7 million. The TSI was even less fortunate; losing a net 674,000 jobs. Temporary employment as a whole was slashed due economic hardships, shrinking by 26% to approximately 1.95 million temporary workers. Given the lack of demand growth that is customary in
recessions, firms looked to cut costs without compromising core competencies and business longevity.

Tougher conditions existed for female contingent workers, see Figure 3.4. As of January 2000, female workers in the TSI accounted for 48% of temporary workers, approximately 1.26 million employed. This decreased by 3% to 45% of the TSI workforce at the end of January 2010. For those 674,000 jobs lost in TSI during the 2000s, roughly two thirds of those cut were temporary working women. This was not the same case for females working in permanent roles.

![Figure 3.4- Women in U.S. by Job Permanence](image_url)

As we know, total US employment dropped during this time period by 1%, but US female employment rose 3% by net-adding 2.11 million jobs. It could be that a portion of women cut from their temporary jobs were reentering the labor market under permanent employment. Knowing that women are likelier to have higher demand for detachment from the labor market due to family obligations during stronger economics periods, perhaps also economic hardships provisionally change their labor demand
preferences. If so, this could explain that women sought to sort away from temporary work until economic conditions improved.

The nature of the temporary employment has transformed relatively since the 1970s. In short, the industry became larger, more sophisticated, and as a result more participation has occurred from both the labor supply and labor demand side. There were important demographic shifts sorting to temporary work as well as underlying labor supply and labor demand forces attributing to growth. The trends that developed starting from the 1970s throughout the 2000s help to explain the temporary U.S. labor market we see today, and to allow us to predict how the market will change in the future.

D. The current US Temporary Job Market

This section describes the current US temporary job market characteristics using existing information from literature and data. The market for temporary jobs has experienced explosive growth since the 1970s. It has developed in size and sophistication, and now is a maturing, complex industry. Since the recession in 2008-2009 the industry has recovered the volume lost from the downturn. According to the CES, temporary employment stands at approximately 2.78 million of U.S. employees today. This is a 43% growth since January 2010, a positive 831,000 jobs added. With the temporary job market returning to its historical high-growth pattern, it now stands as 2% of total US employment. As of 2013, the temporary job market generated $109.2 billion in sales from temporary and contract staffing (ASA Fact Sheet, 2013).

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7 Temporary Job Market interchangeable for TSI.
The recovery of temporary employment was relatively equal among workers of both genders. When looking at the data in the CES, female temporary workers recovered at a slightly faster pace of 51% percentage growth since January 2010 because women were a smaller part of the temporary job market. However, the total number of temporary jobs added for women were relatively the same for men. Overall, the percentage mix of women in temporary roles is decreasing; women today make up 45% of the temporary job market. As it stands today, there are 1.26 million female temporary workers and 1.5 million male temporary workers (CES, 2014). There is no indication if this trend will continue or if it will reverse.

In a December 2011 cross-sectional sample of the 2008, Survey of Income and Program Participation (SIPP), of those participants that were contingent workers, 39% were female. In comparison the estimate from the CES was that 44% of temporary workers were women in December 2011. These two sources match well for comparison purposes, but together, they leave no clear trend as to how appropriate gender fits in temporary work.

The temporary job market is not one-dimensional when it comes to labor skill. Unlike some industries which human capital is easier to quantify and the labor product is homogeneous, employment in the temporary job market varies wildly by occupation, industry, age, education, and professional experience. This makes it difficult to identify the mix of skills. Here, I will look at skill mix in detail.

Temporary workers are diversified among the many occupations. When the staffing industry originally started it was abundant in clerical work. As seen in section C,

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8 Those considered contingent workers answered ‘yes’ to a question…
9 Sample size, n=160
this has changed as the industry has transformed—growing larger and becoming more sophisticated. Nowadays temporary staffed jobs are less focused in clerical work; approximately 20% of temporary workers are in clerical work as of December 2013 as seen in Figure 4.1 (ASA, 2013).

The largest occupation for temporary workers is approximately 35%, in industrial jobs such as manufacturing or construction (ASA, 2013). These industrial jobs are typically labeled as blue-collar. By definition a blue-collar job is one that typically does not require higher levels of education. That said, these occupations may require some form of specialized training; regardless, the flexibility needed in industrial and clerical work is best matched by temporary employment. This is perhaps the primary reason for its large quantity as well as for the ease in disposing of such employment.

On the other hand, the remaining 45% of the temporary workers are employed in relatively higher-skilled occupations. These occupations are shown in Figure 4.1, are managerial-professional, technical and information technology, and health occupations (ASA, 2013). Although this chart shows the diversity of the temporary job market, it is oversimplified. Workers in office and industrial roles may be inappropriately grouped and not labeled as high-skilled by the nature of their occupation.

Specifically, the ASA reports that 21% of these skilled temp workers are in professional-managerial roles (2013). A comprehensive study by MBO Partners in 2011 highlights the highest skill end of the temporary job market. Approximately 75% of Axiom lawyers came from a top-25 school; approximately 60% of Eden McCallum’s independent consultants worked for the top 3 consulting firms\textsuperscript{10} (Miller, 2012). Education

\textsuperscript{10} In reference to Bain, McKinsey, and BCG
and job prestige are a signal that these individuals are very capable of working in many high skill roles for many firms. Regardless, the temporary job market has a large range in skill mix. It is populated with classic manual laborers as well as CEOs (ASA’s Annual Report, 2013).

Technical jobs, requiring specific levels of training and education make up 6.4% of this sample. Information technology jobs, a segment of the US workplace that continues to grow and be in hot-demand\textsuperscript{11} compliment the remaining 9.3% of this category. Together the two occupation categories comprise 15.7% of the occupations in this sample.

Health care occupations at 7.8% accounts for the remaining portion of the workforce. Healthcare requires certification and training. Examples where this is especially true is doctors, surgeons, staffed nurses, administration staff, and other related occupations.

\textsuperscript{11} Information Technology Configuration Manager was listed as CNN/PayScale’s #7 in ‘Best Jobs in America: 2013’ due to its median salary of $95,800 and 28.5% job growth expectance (MoneyCNN, 2013). Jobs #37 & #65 too were IT related.
Alternatively, we can use individual-level data from the SIPP\textsuperscript{12} to look at the similarities and differences in the occupations. The top three occupations in order within this small study were: Grounds Maintenance Workers, Construction Laborers, and Truck/Sales workers and drivers\textsuperscript{13}. Figure 4.2 will analyze these top three against all other occupations.

Grounds maintenance workers made up approximately 7\% of the sample. The median age for a grounds maintenance worker was 47 years old with a slightly lower average of about 41 years. Far lower than the study average, grounds maintenance workers had about a 55\% of high school completion rate. As a result the median monthly wage for these workers was below the study median monthly wage; a $730 for grounds

\textsuperscript{12} In the SIPP, workers defined as temporary reported themselves to be “contingent” workers. That said, we expect this data to be under-estimation.

\textsuperscript{13} Occupations were coded according to the SIPP Core Data Dictionary. The top most prominent occupations’ codes are (4250, 6260, and 9130).
maintenance compared to $1200 for all temporary workers. Interesting to note is that all workers in this occupation in this study were males.

Construction laborers made up 5% of the sample population. The median age of 35 years old is considerably lower than ground maintenance workers. As evidence that education is a predictor of earning, construction workers in this sample averaged a higher completion in high school (75%) than ground maintenance workers. No one construction temporary worker completed college in this sample. While still having low averages compared to the aggregate sample, median monthly salary was higher for construction temporary workers. The median monthly salary of $1700, is $970 higher than the average temporary worker, while having a 20% higher high school completion rate. This tells us two things about the temporary job market: (1) groups of certain occupations with low levels of education exist; and, (2) with education attainment come higher salary averages. This analysis starts to support the hypothesis that the temporary job employment is comparable to other types of employment.

The third most prominent occupation was truck/sales workers and drivers. This represents just over 4% of the sample population. It has the oldest average age of the top three occupations (median age 52), with both slightly lower education completion (high school completion 71%) and monthly earning profiles (median salary $1600).

These three most common occupations do not require college completion, nor is high school non-completion a barrier to entry. From a labor demand perspective as explained in section B, the skills obtained by a worker translate to his or her human capital and wage. Without an advanced degree both a temporary and non-temporary worker will have fewer skills offer a firm. This explains why many with low skills seek
temporary employment, because it inherently comes with job training and skill development.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Population Share</th>
<th>Average Monthly Earnings</th>
<th>Average of Age</th>
<th>Average of High School</th>
<th>Average of White</th>
<th>Average of Married</th>
<th>Average of # of Kids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Three Occupations</td>
<td>16%</td>
<td>$1,533</td>
<td>40</td>
<td>65%</td>
<td>81%</td>
<td>46%</td>
<td>1.31</td>
</tr>
<tr>
<td>All Other Occupations</td>
<td>84%</td>
<td>$1,954</td>
<td>36</td>
<td>95%</td>
<td>80%</td>
<td>39%</td>
<td>1.18</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>$1,885</td>
<td>37</td>
<td>90%</td>
<td>80%</td>
<td>40%</td>
<td>1.20</td>
</tr>
</tbody>
</table>

As we had broken down the top three occupations, similarly we break down the top three industries. The top three industries, in respective order, are: construction, restaurant, and elementary-secondary education industries. See Figure 4.3.

The construction industry, the most prominent industry, comes as no surprise being that the second most prominent occupation was construction laborer. The industry represents almost 9% of the sample population. When transitioning from the construction occupation to the construction industry the characteristic change. Median age for the industry is 36 years of age with a close tied average of 35 years old. A slight uptick in high school completion for the industry as a whole puts the average completion at 79%, with 7% of the temporary workers in this industry completing college. The median monthly earnings for a temporary worker in this field are about $1400. The unadjusted median monthly family income is just shy of $5,000. Holding constant the fact these temporary workers are not working multiple jobs to supplement their incomes, their spouses are contributing a larger share of the family income. In their largest represented

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14 Industries were coded according to the SIPP Core Data Dictionary. The top most prominent industries’ codes are (770, 8680, and 7860).
industries, temporary workers are not the bread-winner and as such, policies should be made keeping this in mind.

The restaurant and food service industry is the second most represented industry among these temporary workers, shy of 7% of the study. This industry is most unique to the other occupation and industry profiles as far as age and education. It is arguably filled with a totally different temporary worker profile. The sample industry median age is 27, with a minimum of 20, and a maximum of 42 years old. In comparison to the construction industry, the restaurant and food service industry is 55% male versus 86% male. The high school completion rate for these workers is 100%\(^\text{15}\) and 18% for college completion. Workers in this industry make closer to half of the family income share, which is higher than in the construction field but not by much.

The third most common industry among the temporary workers in this SIPP is elementary-secondary education, just above 6% of the sample population. By far the most educated of the three industries, elementary-secondary education has a 100% completion for high school and 70% completion for college. This is almost expected as many laws forbid instruction by those without certifications and certain education degrees. The median monthly earnings for a worker in this field are marginally $1450. This is a difference of $50 higher per month than the temporary construction workers’ median monthly earnings.

\(^\text{15}\) Keep in mind that the survey size is small, therefore making industry cuts makes the data thin and results more directional than representative, N=11.
In addition to the occupations and industries that temporary workers occupy, this analysis also shows the importance of educational attainment. This is a strong indicator of the skill level held by temporary workers as a whole. The SIPP participants comparably lacked education to those surveyed by the ASA. Approximately 90% had completed high school, 24% had completed college, with no indication of post-graduate degrees. The SIPP participants comparably lacked education to those surveyed by the ASA. In 2006, ASA took a comparable survey of temporary workers. The results of this survey showed that approximately 42% of those temporary workers had completed college while 32% had completed some post-graduate degree.

One’s cumulative professional experience is defined by the years employed in the labor force. Those older in age are likely to have more experience than those that do not. Therefore, a higher average age of temporary workers will give an indirect explanation in skill-level. The median worker age in the full SIPP sample for temporary workers was 36 years old. The average was approximately 37 years old. This is almost identical to the results in the ASA’s survey. The average age was nearly 38 years old. By the time an average worker enters their mid-to-late 30’s they will have most likely obtained 10+ years of experience. It is fair to argue that the age distribution may be skewed at both
ends of the spectrum—with a high proportion of employees being those young and old.

After careful statistical analysis, the mean of the temporary worker SIPP sample is 37 years old, with a standard deviation of approximately 12.36 years. Two standard deviations beyond the mean would be the ages under 12 and over 61. There is one participant, a 63 year old, that is in this sample. Dropping this one outlier has no effect on the median age of these temporary workers. As depicted in Figure 4.4, the age distribution is multi-modal, with a minimum 19 years in age to a maximum of 63 years of age. There are three age clusters: from 19-27, 32-40, and 47-55. This best describes the ages in the temporary job market and gives an explanation of the “friction” caused from temporary hiring in the workplace (P. Hughes, personal communication, March 19, 2014). There are perhaps certain ages more popular than others to enter the temporary job market.

Entering a temporary role around 24 years of age may be explained by the “stepping stone” concept explained in section B. Those freshly entering the job market may favor temporary work for two reasons. First, this is the age when some take gap years in their career, lingering before returning to school or taking the time to study for admittance exams such as the GREs and the LSATs. Second, these workers may lack the formal job experience they would need for entry-level jobs and in the meantime accept temporary work as an alternative.
Figure 4.4: Age Distribution of Temporary Workers

Data gathered in December 2011 cross-sectional sample of the 2008 SIPP

The second popular age to enter the temporary workforce is the mid-30’s, around the average age of a temporary worker. There are two reasons that may explain why this occurs.. First, workers of this age are most likely have families by this time and dedicating more time being home to help raise a family. Second, this age group may be at a crossroads in their career. By this time most would either be promoted higher along a career while others may exit by taking one of three options. The first option would be to leave the labor market altogether. The second option would be to restart on a new, different career path. As discussed in section B, temporary jobs serve well as entry-level tryouts. The third option would be to switch occupations or companies. By switching their roles, these temporary workers acquire new skills and get to further develop older skills by implementing them in new processes.

The third popular time to enter the temporary job market is the late 40s and early 50s. This timing is important because it is closer to the end of one’s career. This means that the worker has a specialized series of skills. It also means that the worker may be
closing on their expected retirement age. The ability as well as the desire to work in a temporary role is heightened at this time.

This hypothesis is supported by Figure 4.5, below. The figure represents the increasing average returns with age as a temporary employee. In this graph we may think of age as a proxy for years of experience and acquired human capital. The older the age, the more likely the more skills he or she has to contribute to the firm. Higher earnings may naturally be awarded to older temporary workers in part that they forgo the increasing value in job security, which is not present among contingent workers.

![Figure 4.5: Average Monthly Income by Age](image)

Data gathered in December 2011 cross-sectional sample of the 2008 SIPP

The final characteristic of the current temporary market is geography. Even though the temporary job market had existed before 1970s, the industry has developed in certain geographies earlier than in other geographies according to literature. Essentially the temporary job market was more prominent in more developed labor markets. As the idea of temporary work had become formalized and grew, it shifted regionally. In lesser developed labor markets such as those in the south and west the TSI branched out to
these markets. Correspondingly, the TSI was declining its attention in more developed labor markets such as those in the North and East (Theodore, 2000).

In the earlier years of temp work the larger metropolitan markets drove temporary work. As the industry matured, it became less centralized in urban areas while still having a larger overall presence in urban areas. In 1965, New York, Chicago, and Los Angeles were responsible for approximately 45% of temporary agencies. By 1983, they accounted for 15% of the temporary staffing industry, and in 1997, these three markets contained fewer than 10% of the national share (Theodore, 2000).

Temporary employment is a globally known and adopted concept; it has characteristics that make it universally attractive. However contingent work is not developed equally in all geographies or in all labor markets. The specific reasons that cause this to vary are: the difference in labor market specific demands, the footprint of the TSI, competition, and employment regulation.

Certain markets today have higher levels of temporary incidence than other markets. As already discussed in the beginning of this section, the US has a national average of temporary work just climbing over 2%. The likelihood of temporary work popularity will differentiate depending on the state, and more specifically whether observing an urban area.

Each local market has a specific cluster of occupations. An example is the Silicon Valley. The Silicon Valley is a hub focused on technology and the labor supply is highly skilled. Innovation and information are created and then shared throughout this geography. As a result, the structure of the industry is very dynamic. A matter of a few weeks may determine whether a project is futuristic or extinct. For the structure of this
labor-market, there is a specific need for labor supply, and like a pull-system, the specific labor demand follows.

In the Silicon Valley a network of specialized individuals create a framework for “loosely coupled systems”. This structure and specific need creates an incentive for the highly skilled, individual worker to work as a contract employee (Kalleberg, 2000). This happens because many of the employment holes in this geographic area are provided by unique skills for short periods of time containing specific high-level tacit knowledge. In parallel to the added benefits of a contracted Silicon Valley worker, as technology changes so does the employment demand for that added contractor.

Additionally, not all industries are dispersed evenly among the US. The specific labor market needs are an area tied to the industries that drive them. As a result there is a variation of temporary workers due to the industry activity clustering. For example, recalling that the proportion of temporary workers is highest in industrial jobs, it is understandable that geographies with a large concentration in industrial production have higher levels of temporary workers. We would then look to states such as Illinois, Ohio, and Wisconsin and verify deeper penetration of temporary employment (Theodore, 2002).

Another example of how labor specific demands dictate temporary work prevalence is seen in the aerospace industry. While limited to the nature of their need, an aerospace engineer contingently moves and works in select geographies that have a need for their services and skills. This is due to uncertainty and lack of trust in organizations (Kalleberg, 2000). Temporary work in this circumstance is an advantage to the individual. As such, these workers are more nomadic, acting at one particular time as a
contingent employee and migrating to certain temporary markets in certain matching geographies.

Lastly, temporary and contingent work flourishes under emerging labor markets with high levels of competition. The nature of an emerging and competitive labor market is its sharp employment growth constrained by the constant downward pressure of minimizing costs and lowering product prices. These forces target the size of profits earned by firms. Temporary work increases profits from a cost savings perspective, while supporting the firm’s ability to quickly adjust (hiring and firing) large portions of staff (Theodore, 2002).

E. International Comparative Analysis

Every country’s labor market is unique. Factors that make them unique include the differences in: population size, employee preferences, culture, mix of job skills, employment regulations, economic health, and range of outputs produced. As we will see, this set of factors determines the level of temporary employment in these countries.

This set of factors drive labor supply and demand and determines how of these labor market function. Understanding how labor demand and labor supply interact is important to explain why some countries have higher levels of short-term or fixed-term employment. For example, perhaps countries with higher demand from firms for this employment type have more share of the workforce in a given structure, all else equal.

In this section, the role of the factors discussed in Section B will be explored in context of three international labor markets. The three analyzed countries are France, Spain, and Sweden. These countries were chosen based upon their geographic locations,
the amount of available literature studying temporary employment in these markets, data availability, and culture characteristics. Each country may differ from its close neighbors but, by and large, they share similar characteristics. For this reason the analysis will provide a general understanding of labor markets across much of Western Europe.

The analysis of each country will provide a general economic profile and contain a brief summary of economic history pertaining to temporary work, supported by previous literature. This history will be complimented by recently drawn data from Organisation for Economic Co-operation and Development (OECD) statistics on the share of employment in temporary arrangements and an employment strictness index. The employment strictness index measures the procedure and costs associated with firing individual employees and the ease of hiring contingent employees. The scale ranges from 0 (low protection level) to 6 (high protection level). Together these components will provide a relatively complete picture of temporary employment in other labor markets.

The first country, Sweden, was selected to represent the most northern economies in Europe. The literature makes the case that Sweden is a fair representation of Nordic economies (Kalleberg, 2012). Sweden’s population is the smallest of the analyzed countries, with 9.65 million residents. This means that roughly 1 in every 738 people in the world is a resident of Sweden. The average age of retirement for both men and women is 65 years old. The youth unemployment rate for Sweden is relatively the same to that in France, at 23%. Its unemployment rate is currently 8.6%, with a long-run unemployment rate at 1.3%, the lowest of the analyzed countries. Sweden’s economy is a mixed economy

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16 Methodology consists of dismissals of regular contact employees, additional costs for group dismissals, and regulation on temporary workers—including but not limited to notice, tenure, pay, and duration.
having 52% of its GDP come from government spending. Sweden’s economy is heavily reliant on its exports of timber, hydropower, and iron ore (Trading Economics, 2014).

In the early 1990s, amidst a global recession, Sweden’s economy went into a downturn; as a result, GDP fell by almost 6%. As a consequence, between the years of 1989 and 1993 unemployment spiked approximately 6.7% to an overall rate of 8.2%. Under these economic pressures, job losses were concentrated on those with open-ended contracts while employment in fixed-term contracts rose (Holmlund, 2002). Over the three years of 1990-1993 more than 600,000 open-ended contracts were eliminated; temporary employment remained relatively unchanged. Temporary employment would later pick up in the later part of the 1900s following 1993 (OECD, 2014). This tradeoff between permanent and temporary jobs is interesting for two related reasons. The first reason is that the jobs lost during this downturn were those that had higher levels employment protection, not those in which it was generally easier to fire workers. The second reason is that Sweden’s temporary workforce throughout the early 1990s accounted for 10% of total employment costs (Holmlund, 2002). That implies that the remaining 90% of associated employment costs were from open-ended contracts. In 1990, Sweden’s employment strictness on temporary contracts index was approximately 4.1; strictness on permanent contracts was approximately 2.8 (OECD, 2014). Up until 1997 Sweden had laws that permitted when temporary workers were allowed. These conditions were: that the employment arrangement was designated for a project, the arrangement could not exceed 6 months in duration.

Because of this regulatory structure, such a high level of termination of open-ended contract workers must have meant that either the employment penalties were too low to be
meaningful or that the gains in recovered salary after maintaining productivity outweighed employment termination penalties (Holmlund, 2002). As output markets in Sweden began to stall, the labor market adjusted as well. In response to the effects of the downturn and large unemployment spike, the Swedish government lessened employment strictness for temporary employment. Employment protection fell 1.3 points to an overall 2.8 by 1992, and then again in 1994 by 1.0 points to an overall level of 1.8. The cause of these index changes consisted of major changes to employment protection for temporary (fixed-term) jobs but not for permanent (open-ended) jobs that were slashed following economic recovery. Holmlund notes that from the late 1980s throughout the 1990s a high proportion of new temporary workers were women and youth (ages under 25). This is a pattern also seen in France and Spain, but not in US labor market. From a labor supply side, temporary work, according to Holmlund (2002), was becoming more accepted by workers of all ages and both genders.

There were changes in the level of temporary employment across industries in Sweden from 1990 to 2000. Over this decade, Sweden’s financial and business services industry saw the largest growth in the number of temporary workers and largest change in the share of temporary workers. The share of temporary workers grew from 5.6% to 11.1% of the industry. Contradictory of this, Sweden’s health and care industry saw a decline in the share of temporary workers from 36.8% to 25.0% of the industry. The industries largely responsible for Sweden’s exports, manufacturing and trade, both experienced a growth in the number of temporary workers and an increase in the share of temporary workers in those industries (Holmlund, 2002).
Sweden emerged from its economic downturn, eventually achieving a 4% unemployment rate by the year 2000 (Holmlund, 2002). At the start of this recovery period, in 1997, temporary employment was an estimated 14.6% of total employment. At this time, Sweden’s government had dropped the provisions placed on temporary work. Throughout the 2000s temporary employment grew only slightly, by 0.65%, ending the late 2000s at an overall estimate of 15.3%. Meanwhile Sweden’s strictness on temporary contracts was at its lowest since 1997 at an index of 1.4. The government had lowered the index in 2008 to a value of 0.8. Sweden’s strictness on permanent contracts during this time period remained relatively unchanged, with a decline of only 0.2 points. With no substantial increase in the level of temporary employment from the late 1990s through the 2000s, it is to argue how much employment strictness fluctuations—at least those on fixed-term contracts—affect temporary contracts as a percentage of the labor force. This pattern, based upon statistics from the OECD is shown in Figures 5.1, below.

![Figure 5.1- Sweden's change in Temporary Employment share against Employment Strictness](image)

**Figure 5.1: Sweden’s change in Temporary Employment share against Employment Strictness**

Data gathered from the Organisation for Economic Co-Operation and Development (OECD) statistics, 2014
The economic circumstances Sweden experienced in the last decade of the 20th century is likely because of a global recession at the beginning of the 1990s. Sweden’s economy, being reliant on international trade, was therefore greatly impacted. Changes in temporary employment levels across Sweden industries, especially those with large adjustments, were perhaps in response to these macroeconomic fluctuations.

The second country in this analysis, France, was selected to represent the Northern Continental economies of Europe. Like Sweden, France has its unique labor market characteristics. Some similar economies to France’s economy are Belgium, the Netherlands, Switzerland and Germany. As we see in Cahuc’s (2012) work on temporary and permanent job sorting in Europe, there are clusters of behaviors common to certain economic profiles. What are particular about these ‘French style’ economies are their protection policies on temporary work.

France’s population is the largest of the three international countries, with 65.8 million residents. This means that roughly 1 in every 107 people in the world is a resident of France. Workers in France retire on average at the same time of Sweden and Spain, at 65 years old. The youth unemployment rate for France is 23%; as is the same in Sweden. Its unemployment rate is currently 10.20%, with a long-run unemployment rate of 4.40%. France, like Sweden, is also a mixed economy with 52% of its GDP coming from government spending. It is an industrial based economy, producing a fair share in agriculture while being a leading producer in aircraft, chemicals, electronics, and industrial machinery products (Trading Economics, 2014).
France does not necessarily have lower penalties for firing temporary workers than for permanent workers. This is opposite of Sweden, and different from the United States. In France, firms cannot cut temporary contracts before their end-date (Cahuc, 2012). Since 1990, France has seen an overall increase in the level of temporary work over permanent work. Starting in 1990, temporary employment was approximately 10.5% of the total workforce. Throughout that decade, until the 2000s, prevalence of temporary employment grew by 47% to a level of 15.5% of the employed work force. No notable change was made to France’s employment strictness from 1990 to 2013; although in 1991 there was a slight uptick in strictness in temporary employment (OECD, 2014).

France’s story is particularly interesting because it shows that employment strictness changes are not required to see shifts in temporary growth. We speculate that the increase in the share of temporary work was driven by other labor supply and labor demand forces which are not supported in the literature. We speculate that beyond those conceptual factors in section B, France’s growing share of temporary employment may be driven by its economic health and labor market features. For example, France’s economy is second to Germany in size within Europe; however it has a higher unemployment rate than Sweden, which has a comparable country profile (Trading Economics, 2014). Likewise, the higher the unemployment rate is in a country, the higher the rate at which workers seek employment. As discussed in section B, temporary work provides an employment opportunity during job intermission and for those looking to eventually enter the firm on a permanent level. Keeping this mind, France’s share of temporary employment declined during the global recession in the early 2000s, dipping as low as 13.51%. As of 2013 temporary employment has returned to 15.19% of employment in France.
The final country in the analysis, Spain, was selected to represent southern European economies. Similar economic countries are Italy, Portugal, and Greece (Cahuc, 2012). Spain’s population of 46.2 million residents is smaller than that of France but larger than that in Sweden. Approximately 1 in every 151 people in the world is a resident of Spain. The average retirement age for both men and women is also 65 years old. The youth unemployment rate for Spain, of 53.90%, is significantly higher than that of Sweden, France, and the United States. Likewise, its unemployment rate is currently 25.93%; its long-run unemployment rate of 13.10% is the highest of the analyzed countries as well. Spain has a mixed economy and is the third largest exporter of wines, vegetables and fruits, making it well recognized for being an agricultural based economy. In addition, Spain’s largest exports are primarily manufactured goods (Trading Economics, 2014).

For Spain, job creation during the latter half of the 1970s until the 1990s was slow relative to that of the United States’ growth at 1.7% (Bentolila, 1994). Spain’s employment
strictness was very high compared to the other two analyzed countries at the start of the
1990s. Even to date, Spain still has a more strict regulation on both types of employment
than does the United States. In 1990, employment strictness was indexed at approximately
3.8 for temporary contracts and approximately 3.5 for permanent contracts (OECD, 2014).
It was believed that slow job creation growth leading up to the 1990s was a result of the
rise in popularity among temporary employment (Bentolila, 1994). In 1995, Spain’s
government had lowered employment strictness on both forms of employment. This too
would happen in Sweden for protection on temporary contracts two years later as
discussed. Employment strictness dropped approximately 0.5 points to 3.25 and permanent
employment dropped 1.19 points to an index of 2.35. With lower strictness comes greater
market flexibility. This was the rationale for Spain’s government whose economy is driven
largely by industries that require employment flexibility.

Additionally, according to Bentolila (1994), this drop in protection occurred
because Sweden government felt that an increase in market flexibility would further build
temporary employment, which would then resolve the slow job creation growth.
Economists observe that the greater flexibility a firm has in labor, the likelier it will
increase the number of employees and its production inventories. Spain’s government
thought that lower strictness would promote temporary employment by three means: (1)
enticing entrepreneurs to better adjust to demand, (2) allowing firms to modify production
to allow for technological advancements, and (3) to allow for better competition in
international markets (Bentolila, 1994).

The share of temporary employment grew continuously in Spain from 1990 to 1995
(except for 1993) from 29.8% to 35.0%. In the years leading up to 2007, temporary jobs
seemed to be growing. Then, in 2007, another reduction in employment strictness took place, this time for just temporary employment. Meanwhile a global recession had started impacting Spain and its trade partners. The direction of growth for temporary workers changed as it is inherently sensitive to economic conditions, discussed in section B. As the global recession ended, once again temporary employment levels in Spain began to grow (OECD, 2014). This indicates that temporary work is responsive to economic conditions rather than employment protection changes.

In Spain, those workers with permanent jobs had a high share of production costs and this was increasing. One other reason temporary employment was favored throughout the 1990s in Spain, according to Bentolila (1994), from a labor demand side, was its anticipated effect on wages. In Spain, those workers with permanent jobs had a high share of production costs and this was increasing. From a labor demand perspective, this is an attractive effect in all countries, especially in Spain. If one were to think about two types of workers within a certain firm, there are those with permanent roles (the insiders), and those who are currently without permanent positions but aiming to become a permanent part of the firm (the outsiders). Legal changes made temporary employment more attractive to a firm by lowering turn-over costs and lowering insider-to-outsider wage bargaining power (Bentolila, 1994). Therefore, as noted in section B, a firm can achieve lower acquisition costs in the hiring process, as well compression of wages of permanent staff to the wages of fixed-term workers. With this logic, temporary employment may be used by a firm as a cost-saving tool for Spanish firms.

Additionally, temporary jobs are most popular among those with frequent detachment from the labor force, such as students, youth, and women. This was less of a
reason for temporary workers in Spain. In a 1991 survey, approximately 89% of those employed in Spain in temporary roles were there because they could not find permanent roles\textsuperscript{17}, whereas in the UK this was only the case for 28% of temporary workers (Bentolila, 1994). Although this survey is older than desired and proportions have likely changed since, it supports the idea that some countries naturally have higher levels of temporary employments. The natural forces stem from types of economies that require more fixed-term employment such as agriculture which has a certain seasonal supply and demand.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.3.png}
\caption{Spain's change in Temporary Employment share against Employment Strictness}
\end{figure}

\textbf{Figure 5.3: Spain’s change in Temporary Employment share against Employment Strictness}
\textit{Data gathered from the Organisation for Economic Co-Operation and Development (OECD) statistics, 2014}

In these three country-specific profiles we have seen differences in average levels and timing of increases and decreases in employment strictness. Strictness on temporary contracts in Spain and Sweden differ greatly, but the level of temporary employment share is the same. In addition, employment strictness does not appear to be correlated with long-term levels of temporary work. It also appears that temporary employment within each

\textsuperscript{17} This assuming that labor detachment is not a deterring factor in permanent employment.
country moves cyclically according to economic conditions, but it eventually has some level of temporary job saturation (Cahuc, 2012).

The differences in country profiles may further explain the differences in temporary employment levels. In all countries, we find that retirement age is roughly the same. Therefore, different levels of temporary employment are not dependent on the age when a worker retires. Sweden and France have the most similar economic profiles in regards to unemployment rates and economy structure; Spain is unique. We at least know that in France and Sweden, enterprises tend to be small, unlike those in the United States (Holmlund, 2002; Cahuc, 2012). This we believe is a factor in the proportion of temporary employment throughout international markets. From analyzing these countries, we find that the population size of a country has no significance on temporary employment levels. For example, Spain has the highest temporary level among the four countries but, Spain has a smaller population size than France and the United States and a larger population size than Sweden.

Additionally, some economies have naturally higher levels of temporary work than others due to their economic comparative advantages. For example, Spain is a leader in agricultural production. As discussed in section B, certain industries like agriculture find temporary employment valuable. This is because the agriculture industry experiences both seasonal demands for labor and volatile production cycles, both fitting for contingent work. In particular, a farm may only have labor demand during the growing season Again, compare all countries to US or none. Also, a farm cannot always predict climate conditions and the effect it has on production needs.
What appears to increase the share of temporary employment over time in these country profiles is less likely to be caused by changes in polices exclusively, but rather how policies impact behaviors of players in the market. It appears to be larger, long-run shifts in macroeconomic health (job creation, unemployment, supply and demand, etc.) that causes temporary work to become more prevalent to permanent jobs.

F. The Future of Temporary Employment

The United States economy is continuing to change. Some of these changes will likely impact the manner in which employment is viewed, particularly the popularity of temporary employment. Since its rapid growth starting in the 1970s, the United States temporary employment market has transformed. This section is a discussion of how the popularity of temporary employment is likely to change as the economy evolves.

The first factor that is likely to change temporary employment is the emergence of Generation Y. This generation is receiving more years of formal education on average than previous generations. The population between the ages of 18 and 24 accounts for 25% of Americans with some college experience. More importantly, those ages 18 to 29 years old accounted for 34% of those with some college experience. This fraction is larger for individuals from 30 to 50 years old and 50 to 70 years old; both of these groups each accounts for 30% of Americans with some college experience\(^\text{18}\). Approximately 32% of undergraduate degrees in the United States are held by those under the age 30 years old in 2012 (US Census, 2012). The fact that this generation is participating more in post-secondary education translates to a higher demand for short-term employment in-

\(^{18}\) Older age groups with some college attainment are less likely to be in progress of their degree than those younger age groups. For this matter the 34% under 30 years old are likelier to obtain a degree or advanced degree in a future study.
between semester breaks. Cost increases in collegiate education forces those attending to supplement their income by working during breaks, therefore further supporting the labor supply increase.

The movement to attain higher levels of formal education results in a segmentation of the temporary labor market by skill-level. Those with a lower level of skill can be used in popular temporary employment agency occupation types, such as clerical and construction jobs. The greater availability of high skilled workers and the greater variance between skill levels, the more a firm can seek to use temporary employment as a job screening opportunity.

Finally, members of Generation Y have watched their parents and grandparents, who were long-standing employees of a single company, lose jobs. For this reason, individuals in Generation Y are more career-driven and less company-loyal (P. Hughes, personal communication, March 19, 2014 and Olson, 2011). As a result, the United States economy continues to see fewer “cradle-to-grave” employees (Miller, 2012). These are employees who dedicate a large-or entire-portion of their career to a single employer. Therefore, members of Generation Y are likely not following this path; it is likely instead that they will be more mobile in their employment arrangements. This means that workers of Generation Y, and those behind them, are likelier to switch roles more frequently, be open-minded to atypical work, and use a job experience as a step towards their career goal; all of these are benefits that are found within temporary employment.

The second factor that is likely to change temporary employment in the future is an aging workforce. As a new generation enters the workforce another generation phases out. Those approaching retirement are older and, on average, have more years of work
experience than younger workers. The Baby-Boomer generation currently facing retirement is segmented into high and low-skilled workers. For those low-skilled, temporary work is a means to slowly edge out of the workforce with extra flexibility in work hours. On the other end of the skill spectrum, firms find high-skilled experienced workers attractive in temporary roles (Olsen, 2012; Miller, 2012). In a short-term period, an individual can share their tacit knowledge. For instance, a highly skilled and highly experienced industrial engineer can be independently assigned to a company, via temporary agency, to find wasteful processes in a manufacturing firm. The worker has the knowledge and skill set to effectively observe wastes and effectively communicate solutions. An industrial engineer without the high skill set and depth of experience would likely not be hired. This is because that individual would require more time to discover fewer problems. In this industry and in similar occupations, experience and skill level is critical from a labor demand perspective. This individual may not receive benefits but will receive a compensation for their work in a much quicker time than if he or she were a permanent industrial engineer (W. Franks, personal communication, May 8, 2014). The tradeoff in high skilled temporary employment is based upon a firm absorbing specialized insights and the skilled worker receiving compensation.

Regardless of what one believes about its eventual effect on health insurance coverage, it is clear that the Affordable Care Act (ACA) has created uncertainty for firms in the United States. The magnitude in potential impact of this legislation and the effect it has on labor costs is directly tied to temporary employment demand. When a firm uses a temporary agency it usually lowers its total employment cost. Keeping in mind that the majority of temporary workers do not receive benefits, insurance in particular, firms will
increase their mix of temporary workers—who will need to find their own insurance plan (ASA.net, 2014).

The uncertainty that the ACA generates for business decision makers creates more opportunities to hire temporary workers. Recall from section B that the rise in temporary employment was correlated with economic uncertainty. The primary reason for this relationship is the labor demand flexibility in hiring and firing temporary workers ensuing changes within the economy.

The final factor that will likely change temporary employment in the future is increased use of higher skilled workers. Leading firms in innovation, universities, and legal firms are discovering the benefits of high-skilled independent workers. Following the Great Recession firms are recovering by “following the talent” (Miller, 2012). These workers are being used on a short-term, contingency basis. From the labor supply side work is minimized; employees receive “80% of their pay for 80% of the hours” compared to their previous employment (Miller, 2012).

As in the past, in the future there are some industries that will be increasing their proportion of temporary workers faster than others. Universities, for example, will continue to embrace non-tenure-track “adjunct” professors. These professors are hired to teaching one specific course or subject and a lower salary per course than full-time tenure-track professors. Between year 2008 and year 2011, tenure-track professors employed decreased by 4% where contingent professor hires increased by 8% 19 (Olsen, 2012). Short term professors made $69,777 where tenured permanent professors made

$118,054 (Olson, 2011).\textsuperscript{20} Focusing on educational instruction, a college or university can save short-run costs by substituting a full-time faculty position with a fixed-term contracted employee.\textsuperscript{21} If college costs continue to rise then institutions will try to cut expenses through employment decisions or pass increases onto consumers, likely increasing temporary employment. It may be that high-skilled temporary employment growth will outpace growth in low-skilled employment.

Workers at a high end of the skill spectrum are buying into this movement. The preference to work under temporary conditions is increasing.

“At the luxury end of the market…professionals start to behave as if they were George Clooney: Given a choice, they pursue their own stream of interesting projects. Though it may seem strange to compare independent lawyers, marketing gurus, CFOs, engineers, and consultants to a movie star, talented people are going independent because they can choose what to work on and with whom to work” (Miller, 2012)

The more that this movement receives attention and positive reviews, the likelier it will help increase temporary employment. The lack of job security is being traded for flexibility, control, and work variety. Driven by their interests, high-skilled workers will change the low-skill reputation associated with temporary jobs.

New players have been entering the temporary market and all signs suggest this will continue. New faces are driven to temporary employment because it fits their schedules, career timeline, and the trade-offs linked to temporary work arrangements are becoming more attractive. The underlying changes in the temporary employment market will remain cyclical regardless of

\textsuperscript{20} Average salary estimates for participating public collegiate institutions.
\textsuperscript{21} Note however, that tenured full-time faculty members have more responsibilities than fixed-term faculty members.
policy implementation. At 2% of total US employment (CES, 2014), it will be interesting how temporary occupations grow during these events and those not mentioned.

G. Conclusion

Temporary employment represents a diverse and unique group of workers. Using multiple sources, our data analysis concludes that these occupations and industries where temporary work is most abundant are driven from conceptual factors from a labor supply and labor demand side. We find that both men and women play a major part in comprising the temporary job market. We have examined that the gender mix among temporary workers has been shifting and plays a role in determining the size of temporary employment. Furthermore, temporary employment is comprised of a wide skill range, from the lowest to the highest of talent. Specifically, we believe that high skilled work is growing, and is also rebranding the image of temporary work. Additionally, we find firms are starting to adjust more to incorporate this employment type.

We conclude that education attainment by these workers across many occupations and industries is a key element to the rise in attraction from a labor demand side. Using multiple sources, our data analysis concludes that these occupations and industries where temporary work is most abundant are driven from conceptual factors from a labor supply and labor demand side. This conclusion is particularly important as we find that geographies such as urban areas and other relating characteristics determine the size and fluctuation of the temporary job market.
Supported by careful data analysis and literature, we have given a historical temporary job market analysis. In addition to the domestic analysis on temporary employment, we compared and contrasted the labor markets of three other countries; Sweden, France, and Spain. From this analysis we find that employment protection does not play a significant role in the share or level of temporary employment in a country. Instead, we find that a country’s economic characteristics such as range of outputs produced and economic health are more of a determinant in the change of temporary employment.

Most importantly this research builds a conceptual model of temporary employment from a labor supply and demand side. This model provides a framework to predict the level of temporary work in the United States as the economy evolves. Our last conclusion is that temporary employment levels in the United States will rise as the demographics of the U.S. workforce transitions, uncertainty of the impact in policies linger, and as the country further focusses on innovation industries.

Bibliography


