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**The Quality of U.S. Employment
As Reflected Through Contingent and Alternative Work Arrangements**

Invited paper submitted by the U.S. Bureau of Labor Statistics¹

I. Introduction

1. In the United States there are many dimensions along which the quality of employment can be measured, including job stability, earnings, existence of and contributions to employer sponsored pension plans, and access to health insurance. Starting in the late 1980's there was a growing concern among labor market analysts that the nature of the employer-employee relationship was fundamentally changing -- away from long-term, direct employment commitments to more flexible, short-term, or indirect arrangements. Along with this perceived change in employer employee relationships, there was concern that the quality of employment in the U.S. also was declining. To address these concerns, BLS established a definition of contingent workers in 1989, and developed a set of questions to be asked of individuals to measure both contingent and alternative work arrangements. These questions were first administered as a supplement to the Current Population Survey² in February 1995, and were re-asked in February 1997, February 1999 and February 2001. This paper first lays out BLS's definition of contingent workers and workers in alternative arrangements. After presenting the definitions, the proportion and characteristics of workers in these arrangements are discussed, along with trends in the measurements between February 1995 and February 2001. Finally several dimensions of the quality of employment in the United States are explored by examining the contributions of workers in contingent and alternative arrangements to the entire working population's employment experience.

1 Paper written by Anne E. Polivka. This paper represents the views of the author and does not necessarily represent the views of the US Bureau of Labor Statistics or any other agency of the US government. The author is grateful to Hector Rodriguez for assistance with the typing the tables.

2 The Current Population Survey (CPS) is a monthly survey of approximately 60,000 households from which the monthly unemployment rates are derived. The CPS collects a large range of information about individuals' employment and unemployment status, along with demographic information such as individuals' race, and age.

II. Defining Contingent and Alternative Work Arrangements

2. In the United States, although a variety of laws regulate the employment relationship, private employers generally enjoy broad authority under the law to establish employment policies. Usually private employers are entitled to set standards for selecting, evaluating, promoting, and terminating workers. Employers typically can also organize work processes, set work schedules, and establish pay levels along with non-wage compensation such as employer contributions to pension plans. Most importantly, within the context of contingent work arrangements, U.S. law does not guarantee the right to be retained in a job once hired. The general legal maxim is that a private employer, unless limited by statute, contract, or collective bargaining agreement is free to hire, manage, and fire any employee at will.³

3. Given this legal environment, along with changes in the economy due to technological advances and globalization, a perception arose in the late 1980s that the era of lifetime jobs had vanished and in its stead a “just-in-time” age of “disposable” contingent workers had appeared. As a first step in ascertaining whether there had been a sea change in employer-employee relationships, BLS set about defining what was meant by contingent work.

4. The term “contingent work” was first coined by Audrey Freedman at a 1985 conference on employment security to “connote conditionality” and to describe a management technique of employing workers only where there was an immediate and direct demand for workers’ services.⁴ Within a few years of its initial usage, however, the term came to be applied to a wide range of employment practices, including part-time work, temporary help service employment, employee leasing, self-employment, contracting out, employment in the business services sector, and home-based work. In fact, to some, virtually any work arrangement that might differ from the commonly perceived norm of a full-time wage and salary job fell under the rubric of contingent work. Although BLS did have an interest in studying many of these employment practices, referring to them all as contingent work causes many workers to be misclassified and many analysts to be confused about what exactly is being described or studied.

5. To return the focus to the transitory nature of the employment relationship and to identify a common underlying characteristic with which to classify workers, BLS in 1989 developed the following conceptual definition of contingent work: “*Contingent work is any job in which an individual does not have an explicit or implicit contract for long-term employment.*” The key criterion underlying this definition is the lack of job security embodied in the arrangement. In using job security, as measured through the existence of an implicit or explicit contract, as the defining characteristic, it is important to note that it is not the actual duration of employment per se, but the expectation of continuing employment that BLS is trying to capture. Jobs that have lasted or will last for a long period of time would still be considered contingent, if the employment relationship has been tenuous and open to review in the past, and there is a reasonable degree of uncertainty about the continuation of employment in the future.⁵

6. In addition to interest in changes in the durability of employment relationships, there also was interest in whether employers were gaining flexibility by obtaining services from individuals who are not

3 In the U.S. statutory and collective bargaining agreements apply to relatively few workers. In January 2001, only 14.8% of workers were covered by a collective bargaining agreement and not all of these agreements contained employment protection provisions. For a discussion of the legal protections employees are provided and the definition of what constitutes an employee please refer to the section entitled “Legal Environment of Employment in the United States” in Chapter 1 of the *Report on the American Work Force, 1995*, and Muhl (2002).

4 Specifically she described “these conditional and transitory employment relationships as initiated by a need for labor – usually, because a company has an increased demand for a particular service or product or technology, at a particular place at a specific time.” Freedman. (1988).

5 Given that individuals can voluntarily leave a job after a short time period and individuals just starting a job will have low job tenure even if the job is ultimately long-term, jobs cannot be classified as contingent based on job tenure alone. For further discussion of the development of the conceptual definition of contingent work, please refer to Polivka and Nardone (1989).

directly on the company's payroll or from individuals over whom the company did not have complete control of their scheduling and performance of work tasks. To explore issues surrounding these types of workers, BLS also decided to obtain measures of workers in alternative work arrangements, where alternative work arrangements are defined either as individuals whose employment is arranged through an employment intermediary such as a temporary help firm, or individuals whose place, time, and quantity of work are potentially unpredictable, such as independent contractors.

III. Operationalizing Measures of Workers in Contingent and Alternative Work Arrangements

7. In order to operationalize BLS's definition of contingent workers, several pieces of information were collected in the supplement. These included whether the worker's reported job was temporary or not expected to continue, how long the worker *expected* to be able to hold the job, and how long the worker *had held* the job.⁶ Jobs were considered to be temporary if the individual was working only until the completion of a specific project, was temporarily replacing another worker, was hired for a fixed time period, was filling a seasonal job, or if business conditions dictated that the job was short term. Workers who were temporarily in a job for a personal reason, such as only working during a vacation from school, were not classified as contingent if they could have continued working in the absence of these personal reasons. If, however, their jobs would cease to exist after they left, the jobs would be considered temporary.⁷

8. To gauge the impact of altering some of the defining factors on the estimated size of the contingent work force, three measures of contingency were developed. The first estimate was restricted to wage and salary workers who for economic reasons expected their jobs to last for an additional year or less and who had worked at their jobs for a year or less. The second estimate of contingent added self-employed workers and independent contractors who expected their employment to last for an additional year or less and who had been self-employed or an independent contractor for 1 year or less.⁸ The third estimate of contingency expanded on the second definition by removing the 1-year requirement on actual and expected tenure for wage and salary workers. (The tenure constraint could not be removed for the self-employed and independent contractors because they were asked a different set of questions.) Essentially, under estimate 3, contingent workers were defined as any workers whose jobs were designed to be non-permanent regardless of how long the jobs have or are expected to last.

9. In addition to collecting information to determine whether individuals were in contingent jobs, questions were asked to identified workers in four alternative work arrangements—1) independent contractors, who were defined as anyone who works as an independent contractor, independent consultant, or freelancer regardless of whether they were self-employed or wage and salary workers; 2) on-call workers, who were defined as individuals who are called to work only as needed, although they can be scheduled to work for several days or weeks in a row; 3) temporary help agency workers, who were defined as workers paid through temporary help agencies, whether or not their jobs were temporary; and 4) contract company workers who were defined as workers employed by a company that provides them or their services to others under contract, and who are usually assigned to only one customer and usually work at the customer's worksite. Since contingency is defined separately from the work arrangements, and individuals were asked both the questions to classify them as contingent and to determine if they were in an alternative arrangement, a worker could be in both a contingent and an alternative work arrangement.

IV. Estimates and Time Trends of Workers in Contingent and Alternative Work Arrangements

6 For workers who had jobs with employment intermediaries such as a temporary help firm or a contract company, information was collected both about the place individuals were assigned to work and the intermediary.

7 For a discussion of the questions actually used in the supplement, please refer to Polivka (1996).

8 For employees of an intermediary, the second estimate also changed the measure of actual and expected tenure from time with the contract company or temporary help firm to the time at the place these individuals were assigned to work.

10. Table 1 presents estimates of the proportion of the U.S. work force in contingent arrangements using each of the 3 definitions for February 1995, February 1997, February 1999 and February 2001. In February 2001, contingent workers as a proportion of U.S. employment ranged from 1.7% under the narrowest definition to 4.0% under the broadest. Between February 1995 and February 2001, the proportion of the U.S. workforce in each contingent arrangement steadily declined. This decline coincided with the longest economic expansion in U.S. history, as denoted by a fall in the annual average unemployment rate from 5.6% in 1995 to 4.0% in 2000. It should be noted, however, that the rates of contingency declined later and proportionately less than did the unemployment rate, suggesting that employers may be slow to adapt their use of contingent workers during an economic expansion.

11. Table 1 also presents estimates of the proportion of the U.S. work force in the four alternative work arrangements as measured in the bi-annual CPS supplement. In all four years, the alternative arrangement with the largest number of workers was independent contracting. In February 2001, there were 8.6 million independent contractors which represented approximately 6.3% of U.S. employment. The next largest alternative arrangement was on-call work. In February 2001, it was estimated that approximately 1.5% of the U.S workforce was employed as on-call workers. Despite the fact that agency temporaries have garnered a great deal of attention in the U.S., employees of temporary help firms constituted the second smallest of the alternative arrangements in each of the four years. Workers who obtained employment through a temporary help agency were estimated to constitute 0.9 % of U.S. employment in February 2001. The smallest alternative arrangement throughout all 4 years was contract company employment. In February 2001 it was estimated that there were 633,000 contract company workers, which constituted only 0.5% of U.S. employment.

12. Unlike contingent workers, the proportion of employment in three out of the four alternative arrangements did not change significantly between February 1995 and February 2001. The exception was independent contracting whose proportion of employment declined very slightly between February 1995 and February 2001. The stability of the proportion of U.S employment in each of the 4 alternative arrangements suggests that employers' use of these arrangements is relatively unaffected by a strong economic expansion.⁹

13. As noted earlier, a worker may be in both a contingent and an alternative work arrangement, but this is not automatically true because contingent work is defined separately from the four alternative work arrangements. In February 2001, the proportion of workers in an alternative work arrangement who also were contingent under the broadest definition ranged from 4% of independent contractors to 55% of agency temporaries. With the exception of independent contractors, the proportion of workers in an alternative work arrangement who were also contingent declined between February 1995 and February 2001. The drop for agency temporaries and on call workers was substantial, declining from 67 % to 55 % for agency temporaries and 38% to 25% for on-call workers. The decline in the proportion of contract company workers who were contingent from 19.8% to 17.1%, while smaller, was still noticeable. The decline in the proportion of workers in alternative work arrangements who were also classified as contingent may be related to an increase over the same time period in workers' satisfaction with their particular arrangement.

⁹ It should be noted that although the proportion of total employment in each arrangement can remain constant over time, growth within a particular arrangement can be larger than the growth in other arrangements because growth within an arrangement depends on its initial level of employment. For instance, the proportion of the U.S. workforce employed by a temporary help agency remained constant between February 1995 and February 1997 at approximately 1.0 % of employment. Nevertheless, between February 1995 and February 1997 temporary help agency employment, as measured in the CPS, grew from 1,181,000 workers to 1,300,000 workers. This represents more than a 10% growth in temporary help service employment. At the same time employment in traditional arrangements, as measured in the CPS, grew from 111,052,000 workers to 114,199,000 workers, which represents only a 2.8 % increase in employment.

14. The proportion of agency temporaries who would prefer to be in a non-alternative arrangement where they did not obtain employment through a temporary help service decreased from 63.3% in February 1995 to 44.4% in February 2001. Similarly, the portion of on-call workers who would prefer to work in a non-alternative arrangement decreased from 57.9% to 43.4%. Even among independent contractors, who, across all of the years, had extremely high levels of satisfaction with their arrangement, there still was a decrease from 9.8% to 8.8% in the proportion who would prefer to work in a traditional employee/employer relationship as opposed to being an independent contractor.

15. In contrast, the proportion of workers classified as contingent under definition 3 who preferred to be in a contingent arrangement as opposed to a potentially more durable employment relationship actually increased from 30.5% in February 1995 to 40.3% in February 2001.¹⁰ This increase in contingent workers' satisfaction with their arrangement suggests that the increase in satisfaction of workers in alternative work may not be solely related to the durability of the employment relationship. Rather the increase in satisfaction also may be related to the fact that in an expanding economy people usually have more options. Consequently, anyone who is found in an alternative or contingent arrangement later in an economic expansion is more likely to be satisfied with the arrangement.

V. Demographic and Employment Characteristics of Workers in Contingent and Alternative Work Arrangements

Contingent Workers

16. Despite the fact that the rates of contingency fell between February 1995 and February 2001, the characteristics of the workers who made up the ranks of the contingent workforce remained remarkably stable. Given this stability, Table 2 presents the characteristics of contingent workers only in February 2001. One of the most salient characteristics of contingent workers is their relative youthfulness. Under the broadest definition, 30.5% of contingent workers were 16-24 years old and under the narrowest definition 44.8% of contingent workers were in this age span. In comparison, only 14.1% of non-contingent workers (workers who were not contingent under any definition) were 16-24 years old. Perhaps as a reflection of their younger age profile, contingent workers also were three times more likely to be enrolled in school than were non-contingent workers.¹¹ However, even among those who were 16-24 years old, school attendance was higher among contingent workers (60.4% under the broadest definition) than it was for non-contingent workers (40.6%). Apparently, a lack of a long-term commitment between workers and employers accords well with being a student. This seems to be particularly true for full-time college students. Using the broadest definition of contingency, of those contingent workers who were students, 71% were attending college of whom 82% were full-time students.

17. Among those not enrolled in school, contingent workers appeared to be slightly less skilled than their non-contingent counterparts. Contingent workers were more likely to be high school dropouts and less likely to have graduated from college than were non-contingent workers. However, despite the lower average level of schooling, contingent workers were found across a wide variety of occupations and industries. For instance, contingent workers were more likely to be in farming, forestry, and fishing occupations as well as in the professional specialty occupations. The latter category includes teachers, who had particularly high rates of contingency. In February 2001, teachers accounted for more than 11% of all contingent workers under estimate 3

10 Some of this increase in satisfaction may be due to the more complete collection of preferences for those classified as contingent under definition 3 in February 2001 compared with February 1995. However, a similar pattern in preferences is seen for those who were classified as contingent under definition 2 and between February 1997 and February 2001 for those classified as contingent under definition 3, where the completeness of data collection was not an issue.

11 Individuals who were under the age of 25 are not asked whether they are enrolled in school in the CPS, for this comparison anyone over the age of 25 was classified as not being a student.

Workers in Alternative Work Arrangements

18. Similar to contingent workers, the characteristics of those in alternative work arrangements did not vary much between February 1995 and February 2002. However, the characteristics of workers differed widely among the four alternative work arrangements and their characteristics were frequently quite markedly different than the characteristics of those in non-alternative work arrangements (workers who were not in any of the four alternative arrangements).

19. Contract company workers were the most similar to workers in non-alternative work arrangements. One of the few striking differences between these two groups was their gender composition. Almost 71% of contract company workers were male compared to only about 52% of the workers in non-alternative work arrangements. Another difference is that contract company workers were more concentrated in the professional specialty occupations, which includes system analysts and computer programmers (25.4% vs. 16.0%); the precision production, craft and repair occupations (19.3% vs. 10.3%); and the service occupations, which includes security guards (18.6% vs. 13.3%).¹²

20. A major difference between agency temporaries and workers in non-alternative work arrangements was the higher concentration of racial and Hispanic minorities among agency temporaries. In February 2001, more than a quarter of agency temporaries were black, which is more than twice the proportion of blacks in non-alternative arrangements. Also, almost 18% of agency temporaries were Hispanic compared to 11% of those in non-alternative arrangements. Agency temporaries also were more likely to be high school dropouts than workers in non-alternative work arrangements (14.7% vs. 8.8%) and more likely to be female (58.9% vs. 47.8%). Although compared to workers in non-alternative work arrangements agency temporaries were disproportionately found in the administrative support occupations, including clerical (29.5% vs. 14.8%), perhaps surprisingly to some, agency temporaries were also more likely to be found in the operator, fabricator, and laborer occupations. In addition, 21.1% of agency temporaries were assigned to work in the manufacturing sector compared to 15.7% of workers in non-alternative arrangements. This occupational and industry distribution belies the notion that all agency temporaries are female secretaries in the business sector.

21. In February 2001, the most striking difference between on-call workers and workers in non-alternative work arrangements was differences in the age distributions. Almost a quarter of on-call workers were age 16 to 24 compared to only about 15% of workers in non-alternative work arrangements. At the same time on-call workers were slightly more likely to be over 64 years old (14.8% vs. 12.6%). While found in a variety of occupations, on-call workers were concentrated in several occupations, although this concentration was split along gender lines. Two categories --operators, fabricators, and laborers (especially truck drivers, freight and stock handlers and laborers); and precision production, craft and repair occupations (including carpenters, electricians, and plumbers)-- together account for almost 50% of male on-call workers, while female on-call workers were concentrated in service occupations (especially food preparation such as waitressing and cooking; health services, such as nursing aides; and personal services, such as child care and teachers' assistants); and professional specialty occupations, including teachers and registered nurses.

22. Independent contractors differed dramatically from all other workers. Independent contractors were more likely to be white, male and age 35 or older than were those in non-alternative work arrangements. Also, perhaps not surprisingly given the type of supervision and production process most likely involved in an independent contractual arrangement versus non-alternative employment (including the number of co-workers and amount physical capital needed), independent contractors were at least 3 times more likely to be found in the construction industry and 3 times less likely to be in the manufacturing industry.

12 These sub-occupations were single out because they constitute relatively large proportions of contract company workers. These sub-occupations do not necessarily represent a large proportion of the entire working population.

VI. Workers in Contingent and Alternative Arrangements and Employment Quality

23. In addition to intrinsic curiosity about the number and characteristics of workers in contingent and alternative work arrangements, some analysts also are interested in these types of arrangements because they believe that they have contributed significantly to an overall degradation of the quality of U.S. employment. In this section, to help shed light on this hypothesis, the access workers in contingent and alternative work arrangements have to health insurance and employer-provided pension plans is examined. After exploring estimates within contingent and alternative work arrangements, the effect of these workers' access on overall coverage rates are calculated. The section concludes with an examination of workers' earnings and contingent and alternative workers' potential contribution to the number of individuals living in poverty in the U.S. Besides testing the hypothesis about the effect of workers in contingent and alternative work arrangements on the quality of employment, this analysis also provides a framework to assess the overall quality of U.S. employment along several dimensions.

Health Insurance

24. In the United States, a major avenue for working adults to obtain health insurance is either through their own employer or through a family member's employer. In February 2001, 82.5% of wage and salary workers¹³ had health insurance from any source and a little more than 60% of these workers obtained their health insurance through their employers. Table 3 presents the proportion of wage and salary workers in the various work arrangements who have health insurance from any source, obtained their health insurance through their employers, and had access to health insurance through their employer even if they chose not to participate.¹⁴ Uniformly, within all of the arrangements, the proportion of workers with health insurance was lower than that of all wage and salary workers. Agency temporaries were the least likely to have health insurance from any source, at 48.1%, while on-call workers and contract company workers had rates approaching the overall average, at 70.0% and 80.1% respectively. With the exception of contract company workers, the discrepancy is even larger between all wage and salary workers and workers in alternative or contingent work arrangements with regards to those who actually obtained or were eligible to obtain health insurance from their employers. In February 2001, approximately 72% of wage and salary workers were eligible to obtain health insurance through their employers. In contrast, only 26.5% of agency temporaries, 35.5% of on-call workers, 19.1% of workers who were contingent under definition 1 and 32.5% of wage and salary workers who were contingent under definition 3 were eligible to obtain health insurance through their employers.

25. Despite low rates of insurance coverage among workers in contingent and alternative work arrangements, their contribution to the overall estimates of those without health insurance is relatively modest. Specifically, counting those who are in multiple work arrangements only once, if all workers in contingent and alternative work arrangements who did not have health insurance from any source were provided health insurance, the proportion of wage and salary workers who had health insurance would increase from 82.5% to 84.3%.

Employer Provided Pensions

26. In the U.S., another dimension along which the quality of employment often is evaluated is access to employer-provided pension plans. In February 2001, a little more than 51% of wage and salary workers participated in an employer-provided pension plan and approximately 55% had access to an employer-provided pension plan even if they chose not to participate. Examination of estimates in Table 3 indicate

13 In this paper wage and salary workers includes all workers except self employed incorporated, self employed unincorporated, independent contractors and unpaid family workers

14 Estimates were not calculated for independent contractors because, similar to the self employed, independent contractors are considered their own employers. Consequently, for independent contractors, obtaining health insurance through their employers would be equivalent to self insuring.

that, compared to the overall average, workers in contingent and alternative work arrangements have lower rates of participation in and coverage by employer provided pension plans.¹⁵ Agency temporaries, on-call workers and contingent workers have much lower rates of eligibility, with only 11.2% of agency temporaries, 35.1% of on-call workers, 8.1% of contingent workers under definition 1 and 20.6% of contingent workers under definition 3 having the option of participating in a employer provided pension plan. While lower, the rates for contract company workers are closer to the overall average, with 47.7% of contract company workers participating in an employer provided pension plan, and 53.5% having the option to do so.

27. Although still modest, given the extremely low rate of pension coverage for those in contingent and alternative work arrangements, these workers' effect on the overall rate of pension coverage is larger than their observed effects on health insurance coverage. Specifically, if all wage and salary workers in contingent and alternative work arrangements who did not have access to a employer provided pension plan were made eligible, the proportion of wage and salary workers who had the option of participating in such a plan would increase from 54.6% to 58.2%¹⁶

Earnings

28. Probably the primary dimension along which the quality of jobs is assessed is earnings. Table 4 presents for full-time workers (those who usually work more than 35 hours per week) the median usual weekly earnings in February 1999 of all workers in alternative arrangements and contingent wage and salary workers. As a point of comparison, Table 4 also contains the usual weekly earnings of full-time wage and salary workers in non-contingent and in non-alternative work arrangements. Earnings varied considerably across arrangements. The median weekly earnings of wage and salary workers with contingent jobs ranged from 66% to 77% of the earnings of non-contingent workers, depending on the definition chosen. Similarly, agency temporaries, and on-call workers earned less than workers in non-alternative arrangements with agency temporaries who worked full time earning only 63% and on-call workers who worked full time earning 87% of their counterparts in non-alternative work arrangements. In contrast, in February 1999 both independent contractors and contract company workers who worked full time earned a great deal more than workers in non-alternative arrangements. Independent contractors' earnings were approximately 19% higher and contract company workers' earnings were 40% higher than the earnings of their counterparts in non-alternative work arrangements. In addition, between February 1997 and February 1999, earnings for contract company workers and independent contractors increased by about 22% – a growth rate that was nearly three times the approximately 8% growth rate for all workers.¹⁷

29. These observed disparities in earnings between the various work arrangements are undoubtedly at least partly due to differences in the characteristics of workers in the various arrangements. However, in a multivariate analysis that controlled for many observed characteristics, differences in earnings among the arrangements still persisted. (Polivka, Cohany, and Hipple, 2000)

30. In the U.S., most workers who are paid by the hour are subject to minimum wage requirements. In February 1999, the minimum hourly wage was \$5.15 an hour and approximately 60% of all wage and salary workers were identified as being paid by the hour. Of these hourly workers, about 5% earned the minimum wage or less, and 18.5% were paid \$6.18 an hour or less (\$6.18 is 20% above the minimum wage). As shown in Table 3, except for independent contractors, the proportion of workers in each of the

15 Again independent contractors are not included in the estimates.

16 Estimates of participation and eligibility in either health insurance or employer-provided pension plans differ slightly depending on how missing data are treated. In turn, estimates of the effect of the extension of coverage will vary slightly depending on the treatment of missing data. For further information, contact the author.

17 Estimated earnings for 1999 were examined because earnings data for workers in non-contingent arrangements who were not in any of the four alternative arrangements were not collected in February 2001. For further discussion of contingent workers earnings in 1999 please refer to Hipple (2001). For further discussion of the 1999 earnings of workers in alternative arrangements please refer to DiNatale (2001).

alternative and contingent work arrangements who were paid by the hour was higher than the proportion for all wage and salary workers. The proportions for agency temporaries and those who were contingent under the narrower definitions are quite a bit larger. Almost 90% of agency temporaries were paid by the hour. Somewhat surprisingly, however, given their lower median weekly earnings, the proportion of agency temporaries who earn the minimum wage or less was about half that of all wage and salary workers. On the other side, the proportion of contingent workers who earned the minimum wage or less was about twice as large as the proportion of all wage and salary workers, and the proportion of on-call workers who earned up to 20% of the minimum wage was about 6 percentage points larger than the proportion of all wage and salary workers.

Poverty

31. For adults between the ages of 25 and 64, the primary source of income is earnings. Consequently, differences in the relative earnings and degrees of employment stability of workers in contingent and alternative arrangements could influence the proportion of adults who live in households with incomes below the poverty line (poor families). To examine this, the proportion of individuals who were employed in February 2001 who lived in a family whose annual income was below the poverty level for the year 2000 was calculated by matching individuals who received the supplement in February 2001 to their responses to the income supplement that was administered in March.¹⁸ Of all individuals who were employed in February 2001, 5.9% lived in families whose 2000 annual income was below the poverty line. Of workers who were age 16 to 64, 6.2% lived in poor families (See Table 5).

32. Somewhat surprisingly, given the lower median earnings observed in many of the contingent and alternative work arrangements, among workers of any age, only agency temporaries had a higher than average probability of living in a poor family. Also interestingly, given their higher median weekly earnings, the proportion of independent contractors who lived in poor families was not significantly different than the overall average. Among those who were age 16 to 64, contingent workers under the two narrowest definitions also were slightly more likely to live in families whose income was below the poverty line (7.1% vs. 6.2%), while agency temporaries were almost one and a half times more likely to live in such families. About 9% of 16 to 64 year olds, who worked as an agency temporary in February 2001, lived in families whose annual income was below the poverty line in 2000.

33. Given that there is not a one-to-one correspondence between individuals' work arrangements in February 2001 and their employment arrangements throughout 2000 (if they were even employed), it is not possible from these estimates to draw the direct conclusion that working as an agency temporary increases individuals' odds of living in poverty. It could be that working as an agency temporary does entail very sporadic employment that increases the odds of living in poverty. On the other hand, temporary help agencies may offer individuals who might not be able to find a job otherwise the opportunity to be employed. For instance, working as an agency temporary may be an individual's first step off of public assistance and towards a long period of employment. For independent contractors, it is not possible to determine if on average all independent contractors have very variable income or if there are just a significant proportion who are initially starting their business and operating at a loss. Despite the inability to form a one-to-one relationship, these estimates do suggest, however, that the connection between living in a family whose income is below the poverty line and working as an agency temporary or an independent contractor is an area worthy of additional study.

VII. Conclusion

18 Estimates were derived using the Census Bureau's definition of whether a family's income was above or below the poverty line. This definition accounts for the age and number of family members. Individuals who were identified as living in a subfamily were assigned the status of the primary family.

34. To address concerns about the durability of employee-employer relationships and to explore whether U.S. employers were turning to more flexible, and possibly less direct, employment arrangements, BLS developed measures of contingent workers and a separate, but overlapping measure of four alternative work arrangements. Using these measures it was estimated that in February 2001, contingent workers under the broadest estimate constituted 4.0% of the U.S. work force. The proportion of the U.S. work force in alternative work arrangements ranged from a low of 0.5% of the work force employed as contract company workers, to a high of 6.3% of the work force working as independent contractors. Between February 1995 and February 2001, the proportion of the work force in contingent arrangements steadily declined, while the proportion of workers in alternative work arrangements remained relatively constant (with the exception of independent contractors). Given that this was a period of unprecedented economic expansion in the U.S., these estimates suggest that employers' use of alternative work arrangements may be relatively immune to the factors that generate a long expansion. In contrast, the decline in the proportion of the workforce that was contingent, suggests that the expected durability of work relations may increase as the economy improves, albeit lagged and at a slower rate than overall labor market expansion.

35. In general, wage and salary workers in contingent and alternative work arrangements have lower rates of health insurance coverage, and less access to employer-provided pension plans. However, the contribution of these workers to the overall proportion of the U.S. workforce without health insurance or pension coverage is relatively modest. Similarly, with the exception of agency temporaries, workers in contingent and alternative work arrangements in February 2001 had equivalent or below average probabilities of living in families whose annual income was below the poverty line. Given that the median weekly earnings of workers in some alternative and contingent arrangements are both significantly above and below those of all workers, these estimates suggest that the dynamics between working in an alternative or contingent work arrangement and living in poverty is an area worthy of additional study. However, the wide variety of characteristics and compensation of workers in these various arrangements suggest that examining them altogether as a single group would be a mistake. Similarly, while it might be tempting to try to formulate an overall index of "bad" jobs using information on job security, earnings, and non-wage benefits, the wide variety of other dimensions along which a job can be evaluated along with differences in individuals needs and desires, seems to preclude this. One person's bad job may be another person's good job.

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ANNEX

Tables

Table 1. Contingent Workers and Workers in Alternative Arrangements as a Percentage of Total US Employment

	February 1995	February 1997	February 1999	February 2001
Contingent Estimate 1	2.2	1.9	1.9	1.7
Contingent Estimate 2	2.8	2.4	2.3	2.2
Contingent Estimate 3	4.9	4.4	4.3	4.0
Independent Contractors	6.7	6.7	6.3	6.4
On-call Workers	1.7	1.6	1.5	1.6
Temporary Help Agency Workers	1.0	1.0	0.9	0.9
Contract Company Workers	0.5	0.6	0.6	0.5

Table 2. Contingent and Noncontingent Workers and Those with Alternative and Nonalternative Work Arrangements by Selected Characteristics February 2001 (Percent Distribution)

Characteristic	Contingent Workers			Noncontingent Workers	Workers with alternative arrangements				Workers with Non alternative Arrangements
	Estimate 1	Estimate 2	Estimate 3		Independent Contractors	On-call Workers	Agency Temporaries	Contract Company Workers	
Age									
16 to 19 years	18.1	15.0	11.1	4.6	1.2	9.7	3.5	1.1	5.1
20 to 24 years	26.7	21.8	19.4	9.5	2.7	14.8	18.8	10.9	10.1
25 to 54 years	48.1	55.2	58.5	72.4	72.4	60.6	65.5	76.1	72.1
55 to 64 years	5.0	5.7	7.3	10.5	15.8	9.1	10.6	7.6	10.0
65 years and older	2.1	2.3	3.7	3.0	7.9	5.7	1.5	4.4	2.6
Gender									
Male	50.4	49.5	50.0	53.2	64.5	53.1	41.1	70.6	52.2
Female	49.6	50.5	50.0	46.8	35.5	46.9	58.9	29.4	47.8
Race and Hispanic Origin									
White	81.3	81.6	81.6	84.0	88.3	83.6	68.4	76.8	83.8
Black	13.8	13.5	13.4	11.2	7.0	13.3	25.4	14.9	11.4
Hispanic Origin	19.1	17.0	16.9	10.6	7.2	11.1	17.6	10.4	11.0
Occupation									
Executive, administrative and managerial	6.2	8.2	9.1	15.4	19.4	5.5	6.7	13.1	15.1
Professional Specialty	15.2	14.2	20.0	16.0	16.8	25.9	10.4	25.4	16.0
Technicians and related support	2.3	2.5	2.4	3.4	1.2	4.2	6.5	9.1	3.5
Sales occupations	8.7	8.7	6.5	12.3	15.6	6.6	7.7	3.1	12.0
Administrative Support	19.4	17.8	17.2	14.0	3.9	8.7	29.5	4.4	14.8
Services	17.9	18.0	16.5	13.0	10.7	18.8	7.6	18.6	13.3
Precision, production, craft and repair	12.2	12.8	11.4	10.9	19.5	13.0	7.5	19.3	10.3
Operators fabricators and laborers	15.1	14.1	13.0	13.0	7.3	15.0	23.2	6.3	13.3
Farming, forestry & fishing	3.0	3.6	4.0	1.9	5.6	2.2	0.9	0.7	1.8
Industry									
Agricultural Mining	2.6	3.4	3.7	2.4	6.0	2.5	1.4	1.6	2.2
Construction	12.4	12.1	9.9	6.3	19.6	10.1	2.9	5.8	5.4
Manufacturing	6.9	6.8	7.5	15.0	3.7	5.3	21.1	20.8	15.7
Transportation & public utility	2.9	4.1	3.7	7.3	5.6	9.7	7.3	6.4	7.2
Wholesale Trade	1.9	1.6	1.9	4.0	2.7	2.3	2.8	3.6	4.1
Retail Trade	14.1	13.7	11.6	16.6	8.8	11.8	3.7	2.6	17.2
Finance, insurance & real estate	3.6	3.2	2.8	7.1	9.2	2.4	6.6	4.1	6.9
Services	51.7	52.1	55.4	36.7	44.4	50.5	45.5	36.8	36.3
Public Administration	3.8	3.0	3.6	4.6	0.1	5.3	(1)	11.9	4.9

(1) Less than 0.05 percent.

Note: Detail may not sum to 100, due to rounding and missing data. Industry classification for agency temporaries and contract company workers is for the place to which they were assigned.

Table 3. Proportion of Wage and Salary Workers in Contingent and Alternative Work Arrangements in February 2001

	With Health Insurance From Any Source	With Health Insurance Through Employer	Elegible for Employer Provided Health Insurance	In Employer Provided Pension Plan	Eligible for Employer Provided Pension Plan	Paid Hourly	Of Those Paid Hourly	
							Earning Minimum Wage or Less	Earning \$6.18 or Less
All	82.5	60.1	71.8	51.1	54.6	59.5	4.9	18.5
Independent Contractors ¹	73.3	---	---	---	---	25.3	10.5	16.2
On-Call	70.0	29.8	35.6	31.3	35.1	64.4	6.8	25.0
Agency Temporaries	48.1	10.7	26.5	7.6	11.2	89.5	2.3	15.0
Contract Company Workers	80.1	52.1	73.4	47.7	53.5	61.0	1.4	10.9
Contingent								
Estimate 1	55.8	10.2	19.1	6.9	8.1	72.9	11.3	39.1
Estimate 2	56.2	11.1	20.6	7.7	9.1	73.4	10.7	37.4
Estimate 3	63.4	22.6	32.5	17.5	20.6	65.2	9.4	32.3

¹Includes Self-employed

Table 4. Median Usual Weekly Earnings of Full-time Wage and Salary Workers in Contingent, Noncontingent, Alternative and Nonalternative Work Arrangements, February 1999

Alternative Work Arrangements	
Independent Contractors ¹	\$ 640.00
On-call	\$ 472.00
Agency Temporaries	\$ 342.00
Contract Company	\$ 756.00
Nonalternative Work Arrangements	\$ 540.00
Contingent	
Estimate 1	\$ 360.00
Estimate 2	\$ 374.00
Estimate 3	\$ 415.00
Noncontingent	\$ 542.00

¹Includes Self-employed

Table 5. Proportion of Individuals Employed in February 2001 who Lived in Families¹ Whose 2000 Annual Income Was Below the Poverty Line

	All Workers	Workers Age 16-64 years
Total	5.9	6.2
Independent Contractors	5.9	6.1
On-call	4.7	5.0
Agency Temporaries	7.9	9.1
Contract Company	3.3	3.7
Contingent		
Estimate 1	5.7	7.1
Estimate 2	5.9	7.1
Estimate 3	5.5	6.5

¹Subfamilies are included in the Primary family

