

# The long-term consequences of nontraditional employment

*Lower pay of former temporary employees and higher pay of men formerly self-employed are likely caused by unobserved heterogeneity; nonetheless, in wage growth models that eliminate this bias, past part-time work has a negative effect on current wages, which varies with gender and whether the part-time status was voluntary or involuntary*

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The October 1996 special issue of the *Monthly Labor Review* profiled workers in nontraditional work arrangements and analyzed their reasons for entering such employment.<sup>1</sup> Several articles in the same issue of the *Review* reported on the earnings and benefits of nonstandard workers: Steven Hipple and Jay Stewart found that contingent workers tend to earn less, and are less likely to have health insurance and pension benefits, than noncontingent workers, and that some alternative workers, such as self-employed men, earn more than traditional or standard workers, but are less likely to have health insurance and pension coverage;<sup>2</sup> and Donna Rothstein, using longitudinal data from the National Longitudinal Survey of Youth (NLSY), compared earnings on the current job with earnings on the previous job, for a select sample of workers who had been on their current job for no more than 3 years.<sup>3</sup> Interestingly, she found that, for the typical contingent worker in her sample, the current job represented a step down from the previous job, whereas for full-time, standard workers, the current job tended to represent a step up from the previous job.

These results, as well as some from earlier research,<sup>4</sup> raise a host of questions about the longer term consequences of nontraditional employment. For example, because workers engaged in such employment not only have shorter job ten-

ures,<sup>5</sup> but also are more likely to be assigned to routine jobs, to receive less training (particularly important for workers without a college education) and fewer promotions, and to be laid off,<sup>6</sup> they may receive lower wages and benefits in the long run. Thus, to the extent that the problems associated with nontraditional work turn out to be more serious in the long run than in the short run, and to the extent that individuals are unaware that this is the case or have a short planning horizon, it may be that many of those who choose this type of employment voluntarily will eventually suffer serious deprivation as a result.<sup>7</sup> With the exception of a handful of studies on the wage growth of part-time workers,<sup>8</sup> there has been no research to date on these long-term effects. This article seeks to fill that gap.

The research to be presented uses the NLSY to investigate the long-term consequences of three types of nontraditional employment on individuals' subsequent earnings and benefits.<sup>9</sup> Building on what is already known about the contingent labor force, we investigate the following questions, which have not been addressed in the research to date: First, how does nontraditional employment (that is, one's ever having had a nontraditional job) affect subsequent earnings and benefits? Second, are the returns to nontraditional work experience (that is, the length of time one spends in nontraditional jobs) different from the returns to traditional work experience?

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And third, to what extent are estimates of the effects of nontraditional employment and nontraditional work experience biased by unobserved heterogeneity among workers? The results suggest that nontraditional employment does have long-term effects on these outcomes, at least insofar as we are able to observe this in a sample of young workers followed over 15 years in the NLSY. Moreover, most of the long-term effects of nontraditional employment and nontraditional work experience persist even after controlling for potential heterogeneity bias.

## Data and methodology

The NLSY provides complete work histories with detailed information about respondents' past and present jobs over a 15-year span, 1979–93. The data are used to observe whether respondents are currently in nontraditional jobs, to track whether they have ever been in such jobs, and to follow those who switch to or from these jobs. The NLSY data allow us to compare the fortunes not only of workers currently in nontraditional employment with those of workers in traditional employment, but also of those who have ever been in nontraditional jobs with those who have not; the data also allow us to compare workers with varying lengths of nontraditional work experience. In addition, the longitudinal structure of the data is used to assess the effects of changes in employment type and employment experience on wage growth over time, in order to control for potential bias caused by unobserved heterogeneity.

The NLSY follows a nationally representative sample of young men and women aged 28 to 36 by 1993. With 1993 assumed to be the current year, information from the 1979–93 surveys (including retrospective information on the period 1975–78 contained in the 1979 survey) is used to track each individual's actual labor market experience, beginning with the year the person turned 18 (or the year he or she left high school if before age 18, but in no case earlier than age 16). Work experience is calculated in terms of actual time worked, expressed in years. Each year that the respondent worked at all is then categorized in terms of whether the individual worked part time, was self-employed, was a temporary worker, or performed traditional work. An individual is coded as working part time if his or her main job that year was less than 35 hours per week. Because there is reason to believe that working part time voluntarily is a very different matter than working part time involuntarily,<sup>10</sup> part-time employees are further divided into those who work part time voluntarily and those who do so involuntarily. An individual is coded as being self-employed if he or she so reports, and the category is further divided into those whose business is incorporated and those whose business is not. A worker is coded as temporary if he or she reports having worked on any

job during the year that ended because the program under whose aegis the job fell was terminated or because the position was only temporary; however, because the reason the job ended is the only way to identify temporary jobs, those currently working on a temporary basis cannot be identified.<sup>11</sup> Any respondent who is classified as a part-time worker, self-employed, or a temporary worker is defined as engaged in nontraditional work.<sup>12</sup> If an individual is in none of these categories, he or she is defined as a traditional worker.

Multivariate analysis is used to investigate the effects of current and past nontraditional employment on current earnings and benefits. For earnings, ordinary least squares models that include controls for age, actual work experience, level of education, marital status, number of children, race, and ethnicity are utilized to estimate the effects of nontraditional employment on the natural logarithm of current hourly wages.<sup>13</sup> For benefits, probit models that include the same controls are used to estimate the effects of nontraditional employment on the receipt of health insurance and pension benefits; to facilitate interpretation of the results, the marginal effects (and their standard errors) from these probit models are reported in tables.

To determine whether nontraditional work experience and traditional work experience have differential returns, the earnings functions are reestimated, with experience broken out into part-time and full-time components. Prior research on this issue has provided mixed results, ranging from findings of basically zero returns to part-time experience<sup>14</sup> to returns that were significantly positive, albeit lower than to full-time experience.<sup>15</sup> A similar analysis is conducted of self-employment and non-self-employment experience.

The third issue examined is how nontraditional employment affects wage growth, as opposed to wage levels. This is important because, to the extent that there is unobserved heterogeneity (say, in ability or motivation) among those who enter traditional as opposed to nontraditional employment, cross-sectional estimates of the effects of nontraditional employment on wages would be biased. A wage growth model in which the dependent variable (the natural logarithm of hourly wages) and all the independent variables (age, education, and so on) are expressed as differences from their values for a previous year is used to control for this potential bias.<sup>16</sup>

## Earnings and benefits of nontraditional workers

In the NLSY sample, 12 percent of the men and 20 percent of the women working in 1993 were in nontraditional employment. The types of employment they were in varied a great deal by gender, as shown in table 1. Fully 16 percent of women were in part-time work, and only 5.5 percent were self-employed, while among men, the most common form of

**Table 1. Nontraditional employment, young men and women, 1993**

[In percent]

| Employment status                                                                | Men   | Women |
|----------------------------------------------------------------------------------|-------|-------|
| <b>Current<sup>1</sup></b>                                                       |       |       |
| Currently in nontraditional employment (part time, self-employed, or both) ..... | 11.95 | 19.76 |
| Part time .....                                                                  | 3.78  | 16.07 |
| Voluntary .....                                                                  | .78   | 8.64  |
| Involuntary .....                                                                | 2.01  | 3.14  |
| Reason undefined .....                                                           | .99   | 4.29  |
| Self-employed .....                                                              | 8.84  | 5.50  |
| Incorporated .....                                                               | 1.71  | .66   |
| Unincorporated .....                                                             | 7.13  | 4.77  |
| Reason undefined .....                                                           | .00   | .07   |
| <b>Past<sup>2</sup></b>                                                          |       |       |
| Ever in nontraditional employment (part time, self-employed, or temporary) ..... | 79.04 | 84.91 |
| Ever part time .....                                                             | 53.56 | 72.82 |
| Voluntary .....                                                                  | 21.61 | 34.63 |
| Involuntary .....                                                                | 24.09 | 29.44 |
| Reason undefined .....                                                           | 7.86  | 8.75  |
| Ever self-employed .....                                                         | 24.75 | 16.51 |
| Incorporated .....                                                               | 4.88  | 1.74  |
| Unincorporated .....                                                             | 18.94 | 13.66 |
| Reason undefined .....                                                           | .93   | 1.11  |
| Ever temporary .....                                                             | 52.02 | 49.34 |
| Mean years of work experience .....                                              | 11.28 | 10.52 |
| Mean years of part-time work experience .....                                    | .87   | 1.69  |
| Voluntary .....                                                                  | .41   | .96   |
| Involuntary .....                                                                | .26   | .32   |
| Undefined .....                                                                  | .20   | .41   |
| Mean years of self-employment .....                                              |       |       |
| work experience .....                                                            | .72   | .36   |
| Incorporated .....                                                               | .11   | .04   |
| Unincorporated .....                                                             | .57   | .29   |
| Undefined .....                                                                  | .04   | .03   |

<sup>1</sup> N = 3,337 for men and 2,870 for women.

<sup>2</sup> N = 4,261 for men and 4,242 for women.

NOTE: Tabulated from the National Longitudinal Survey of Youth, 1979-93.

nontraditional employment was self-employment, which made up 9 percent of all male workers, while less than 4 percent were employed part time.<sup>17</sup> These point-in-time measures, however, greatly understate the prevalence of nontraditional employment over time. Only 21 percent of the men and 15 percent of the women in the sample had never worked in a nontraditional job. About half of both men and women had had a temporary job at some time in the past, and approximately half of the men and more than half of the women had worked part time at some time in the past, although the mean duration of their part-time experience was quite short. Just under 25 percent of the men and under 20 percent of the women had ever been self-employed; the mean amount of time spent in self-employment was also very short.

Differences in earnings and benefits between those who were working in nontraditional employment and those who were working in traditional employment in 1993, as well as

between men and women, are presented in table 2. Among men, those who were self-employed had higher wages, although they were less likely to have benefits, than those in traditional employment, while those working part time had both lower wages and lower benefits. Among women, the patterns were similar, but the wage differentials were smaller.

Table 3 shows that in 1993 there were substantial differences in earnings and benefits between those who had been in nontraditional employment in the past and those who had not. Among men who were working, past temporary work was associated with slightly lower-than-average current wages and benefits, past part-time employment had little relationship to either wages or benefits, and past self-employment was associated with higher-than-average wages, but lower-than-average benefits. Among women, in contrast, past self-employment was associated with lower-than-average wages, while past temporary or part-time work was associated with higher-than-average wages and nearly average benefits. The small minority of women and men with entirely traditional work histories had, on average, extremely high benefit coverage rates, but lower wage rates, than those who had been in nontraditional employment. The table also indicates that those who were in nontraditional employment in the past were more likely to be in nontraditional employment in 1993.

### Effects of nontraditional employment on wages and benefits

Table 4 displays models that estimate the effects of current nontraditional employment on wages and benefits of women and men after controlling for demographic and human-capital variables. The table shows that in 1993, men who were working part time, particularly those working part time voluntarily, had much lower hourly wages than men in traditional jobs, while wages for men who were self-employed were much higher, particularly for those in incorporated businesses. In contrast, both self-employed women and women who worked part time were paid less well than women in traditional jobs, although the average penalty for part-time work was less for women than for men. This finding is related to those of the next model, which show that women who were working part time involuntarily were paid much less than women in traditional jobs or women working part time voluntarily. Also, the penalty in terms of benefits on the job was less for those working part time voluntarily. These results confirm that, at least for women, there appear to be "better," as well as "worse," part-time jobs.<sup>18</sup> Still, in 1993, all forms of nontraditional employment for women and men were associated with lower benefits.

Table 5 shows that, for both men and women, having a nontraditional employment history was associated with lower

current wages and benefits, even after controlling for current employment type, with two exceptions: there were no significant effects on the wages of men or women who were self-employed and incorporated at some time in the past or on the wages of women who voluntarily worked part time in the past. Interestingly, the coefficients on past employment status do not change much with the addition of controls for current employment status, nor are the coefficients for current employment status in these models very different from those estimated without controlling for past employment status. This suggests that, in spite of the high correlation between past and present employment status, each of these has an independent effect on current wages and benefits.

### Returns to nontraditional work experience

What are the effects on current wages of the amount of time spent in nontraditional employment, relative to time spent in traditional employment? This question is particularly important in regard to the NLSY sample, because the majority of its respondents have been in nontraditional employment, but the time they have spent in such employment varies a great deal. As shown in table 6, the return to part-time experience was basically zero for men, while for women, the return was about half as large as the return to non-part-time experience. The second model estimates the effects of voluntary and involuntary part-time experience separately and shows that for men, the return to both was basically zero. For women, in contrast, the return to voluntary part-time experience was strongly positive, while the return to involuntary part-time experience was negative. These patterns for men and women can also be seen in the third model, which adds the full set of current and historical nontraditional employment controls. The last column of table 6 displays the results regarding self-employ-

ment of analyses similar to those for part-time employment. For both men and women, there was a positive return to self-employment experience (although, as before, there was a penalty for women for having ever been self-employed at all), and the return to incorporated self-employment experience was even higher than the return to non-self-employment experience. These results suggest that the effects of long-term self-employment are likely to be more positive than the effects of a brief spell of self-employment.

### Effects of changes in nontraditional employment on wage growth

To control for unobserved heterogeneity that might bias cross-sectional estimates, this section uses wage growth models to estimate the effects of changes in nontraditional employment and in nontraditional work experience on wage growth over time. Pooling data from 1984–93 yields a data set with 14,581 observations for men and 10,847 observations for women, which is utilized to estimate cross-sectional models for the pooled sample. This data set is also employed to estimate wage growth models in which the dependent variable (the natural logarithm of the hourly wage) and all the independent variables are defined as the change in the variable between the current year (which ranges from 1984 to 1993) and 5 years earlier (that is, from 1979 to 1988).<sup>19</sup> These models are then used to estimate the effects of changes in contemporaneous employment status and changes in nontraditional work experience on changes in wages, both with and without controls for employment history.

Pooled cross-sectional and wage growth estimates of the effects of nontraditional employment on current wages are shown in table 7. As anticipated, some of the coefficients on nontraditional employment—in particular, those involving part-time

**Table 2. Wages and benefits, currently employed young men and women, 1993**

| Wage or benefit          | All workers | Traditional | Part time | Self-employed |
|--------------------------|-------------|-------------|-----------|---------------|
| <b>Men<sup>1</sup></b>   |             |             |           |               |
| Mean wage .....          | \$12.68     | \$12.46     | \$10.87   | \$16.20       |
| Percent with:            |             |             |           |               |
| Health benefits .....    | 73.04       | 80.11       | 27.17     | 12.20         |
| Pension .....            | 56.55       | 62.35       | 20.88     | 6.44          |
| <b>Women<sup>2</sup></b> |             |             |           |               |
| Mean wage .....          | 10.50       | 10.61       | 10.02     | 11.05         |
| Percent with:            |             |             |           |               |
| Health benefits .....    | 76.15       | 85.13       | 39.30     | 3.29          |
| Pension .....            | 64.16       | 71.67       | 33.43     | 2.63          |

<sup>1</sup> N = 3,337 for all workers, 2,938 for traditional workers, 126 for part-time workers, and 295 for self-employed workers.

<sup>2</sup> N = 2,870 for all workers, 2,303 for traditional workers, 461 for part-time workers, and 158 for self-employed workers.

NOTE: Traditional workers are those who currently neither are working

part time nor are self-employed. All wages are in 1993 dollars. The percentage with health benefits (percentage with a pension) reflects those whose employer provides health insurance (a pension) and does not include those who have coverage from other sources (for example, a spouse). By definition, the percentage with health benefits or a pension among those who are self-employed and unincorporated is zero.

**Table 3. Wages and benefits, currently employed young men and women, by past employment status, 1993**

| Wage or benefit            | All workers | Always traditional | Ever part time | Ever self-employed | Ever temporary |
|----------------------------|-------------|--------------------|----------------|--------------------|----------------|
| <b>Men<sup>1</sup></b>     |             |                    |                |                    |                |
| Mean wage .....            | \$12.68     | \$12.35            | \$12.89        | \$13.27            | \$12.24        |
| Percent:                   |             |                    |                |                    |                |
| With health benefits ..... | 73.04       | 86.69              | 70.74          | 44.76              | 70.05          |
| With pension .....         | 56.55       | 66.05              | 55.90          | 30.78              | 54.09          |
| Part time .....            | 3.78        | .00                | 7.09           | 6.41               | 4.72           |
| Self-employed .....        | 8.84        | .00                | 9.28           | 35.71              | 8.99           |
| <b>Women<sup>2</sup></b>   |             |                    |                |                    |                |
| Mean wage .....            | 10.50       | 9.91               | 10.69          | 9.82               | 10.65          |
| Percent:                   |             |                    |                |                    |                |
| With health benefits ..... | 76.15       | 89.20              | 72.23          | 41.41              | 75.94          |
| With pension .....         | 64.16       | 74.76              | 61.75          | 32.39              | 64.17          |
| Part time .....            | 16.06       | .00                | 22.07          | 25.96              | 16.46          |
| Self-employed .....        | 5.55        | .00                | 6.23           | 33.33              | 10.86          |

<sup>1</sup> N = 3,337 for all workers, 709 for those who always have been traditional workers, 1,777 for those who have ever worked part time, 826 for those who have ever been self-employed, and 1,736 for those who have ever been temporary workers.

<sup>2</sup> N = 2,870 for all workers, 430 for those who always have been traditional

workers, 2,090 for those who have ever worked part time, 479 for those who have ever been self-employed, and 1,416 for those who have ever been temporary workers.

NOTE: Workers classified as always traditional are those who have never worked part time, been self-employed, or been temporary workers.

nontraditional employment—change in the wage growth estimates, compared with those found in the cross-sectional models, indicating that unobserved heterogeneity does play a part. For men, significant penalties are associated with part-time work in both models, but the penalties are substantially lower in the wage growth model than in the cross-sectional one, suggesting that the cross-sectional estimate is biased downwards. For women, the penalty for switching to involuntary part-time work also is much less negative than the penalty for being in such work in the cross-sectional model, suggesting negative heterogeneity bias, but the penalty for moving to voluntary part-time work is more negative than the same penalty in the cross-sectional model, suggesting positive heterogeneity bias. Note that there are no strong positive or negative returns to self-employment, suggesting that the positive returns to self-employment for men (and the negative returns for women) seen in the single-year cross sections in tables 4 and 5 may reflect unobserved differences in wage-enhancing attributes such as motivation and ability.

In models that control for changes in the length of nontraditional work experience, also shown in table 7, the results for part-time employment are generally consistent across the wage growth and cross-sectional models (except that returns to experience are generally higher in the wage growth estimates). For men, both voluntary and involuntary part-time experience is worth less than full-time experience, while for women, voluntary part-time experience is worth at least as much as full-time experience, but involuntary part-time experience is worth essentially zero. The relative returns to self-employment experience also are fairly consistent across the wage growth and ordinary least squares models. On the other

hand, in contrast to the earlier cross-sectional results, the wage growth models show no penalty for having performed temporary work in the past.

THIS ARTICLE HAS USED 15 YEARS OF DATA from the NLSY to examine the possible effects of nontraditional employment and nontraditional work experience over time. It also has examined the effects of changes in nontraditional employment on wage growth, to control for unobserved variation between those who are currently in, or ever have been in, nontraditional, as opposed to traditional, jobs.

The results reported here confirm that both men and women in nontraditional employment tend to have different earnings and benefits than those in traditional employment, whether or not other characteristics are controlled for. There is a strong tendency for part-time employment and self-employment to persist over time,<sup>20</sup> but in spite of this, past and present nontraditional employment have independent effects on earnings and benefits. Further, the results indicate that both men and women who are, or who ever have been, in any type of nontraditional employment are far less likely to have benefit coverage than the minority who always have had traditional jobs.

Among men, those currently self-employed (especially those in incorporated businesses) tend to do better than other workers, while among women, the opposite tends to be true. This finding is consistent with other evidence about the relative positions of self-employed men and self-employed women.<sup>21</sup> The greater negative impact on men than on women of currently working part time—particularly voluntarily—is consistent with the hypothesis that employers may be more

likely to judge men in part-time employment unfavorably because their careers do not conform to expectations. Second, the results of the wage growth models suggest that men who work part time voluntarily may have negative attributes (such as less ability or motivation) that are not measured in our data, while the opposite is true for women. Finally, it is entirely possible that low wages cause men to work fewer hours, rather than vice versa, while there is evidence to the contrary for women.<sup>22</sup>

More generally, the results from the wage growth models suggest that some of the effects of nontraditional employment are due to unobserved heterogeneity between nontraditional and traditional workers. For instance, such heterogeneity

would explain all of the negative effects of temporary work and all of the positive effects of self-employment found in cross-sectional analyses, because we do not find these effects in the wage growth models. Importantly, however, this would not appear to be the case for the effects of part-time employment, which were only modestly attenuated. Thus, this article provides strong evidence that, over time, part-time work is associated with lower pay for both men and women, although part-time work experience does have some value for women, particularly when it is voluntary. Overall, the results reported suggest that the long-term, as well as the short-term, consequences of nontraditional work depend on both the type of work and the gender of the worker.

**Table 4. Effects of current nontraditional employment on wages and benefits, 1993**

| Employment status                 | Logarithm of wage                | Logarithm of wage              | Health                         | Pension                        |
|-----------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Men</b>                        |                                  |                                |                                |                                |
| Currently working part time ..... | <sup>1</sup> -.0.1615<br>(.0410) | ....                           | ....                           | ....                           |
| Voluntarily .....                 | ....                             | <sup>1</sup> -.3273<br>(.0881) | <sup>1</sup> -.4025<br>(.1123) | <sup>1</sup> -.3325<br>(.1015) |
| Involuntarily .....               | ....                             | <sup>1</sup> -.1458<br>(.0556) | <sup>1</sup> -.5077<br>(.0689) | <sup>1</sup> -.4070<br>(.0607) |
| Currently self-employed .....     | <sup>1</sup> .1310<br>(.0273)    | ....                           | ....                           | ....                           |
| Incorporated .....                | ....                             | <sup>1</sup> .2736<br>(.0596)  | <sup>1</sup> .2103<br>(.0697)  | <sup>1</sup> .3341<br>(.0556)  |
| Unincorporated .....              | ....                             | <sup>1</sup> .0969<br>(.0301)  | ....                           | ....                           |
| R <sup>2</sup> .....              | .2676                            | .2698                          | .0883                          | .0817                          |
| Number of observations .....      | 3,337                            | 3,337                          | 3,252                          | 3,252                          |
| <b>Women</b>                      |                                  |                                |                                |                                |
| Currently working part time ..... | <sup>1</sup> -.0469<br>(.0223)   | ....                           | ....                           | ....                           |
| Voluntarily .....                 | ....                             | .0115<br>(.0289)               | <sup>1</sup> -.3527<br>(.0408) | <sup>1</sup> -.2984<br>(.0403) |
| Involuntarily .....               | ....                             | <sup>1</sup> -.2165<br>(.0464) | <sup>1</sup> -.5335<br>(.0579) | <sup>1</sup> -.4193<br>(.0579) |
| Currently self-employed .....     | <sup>1</sup> -.0952<br>(.0352)   | ....                           | ....                           | ....                           |
| Incorporated .....                | ....                             | <sup>1</sup> -.1993<br>(.0977) | <sup>1</sup> -.4577<br>(.1258) | <sup>1</sup> -.4145<br>(.1135) |
| Unincorporated .....              | ....                             | <sup>1</sup> -.0911<br>(.0375) | ....                           | ....                           |
| R <sup>2</sup> .....              | .3132                            | .3178                          | .1687                          | .1280                          |
| Number of observations .....      | 2,870                            | 2,870                          | 2,659                          | 2,659                          |

<sup>1</sup> Significant at 0.01 level.

Note: Equations yielding the natural logarithm of hourly wages are estimated using ordinary least squares. Health and pension equations are estimated using probits, with marginal effects reported in the table. All models include controls for age, years of actual work experience, level of education, marital status, number of children, race (black), and ethnicity (Hispanic). Models that distinguish between voluntary and involuntary part-time work (and between incorporated and unincorporated self-employment) include controls

for part time undefined (and self-employed undefined). The category of currently self-employed and unincorporated drops out of the benefits models because, by definition, individuals in this category have no employer-provided benefits. The sample for the wage equations includes all individuals who were working in 1993 and had no missing wage or work history data. The sample for the health and retirement equations includes all individuals in the wage sample, minus the self-employed unincorporated and those missing health or retirement data. Standard errors are in parentheses.

**Table 5. Effects of past nontraditional employment on wages and benefits, 1993**

| Employment status            | Logarithm of wage               | Logarithm of wage              | Health                         | Pension                        |
|------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Men</b>                   |                                 |                                |                                |                                |
| Ever worked part time:       |                                 |                                |                                |                                |
| Voluntarily .....            | <sup>1</sup> -0.0569<br>(.0229) | -0.0411<br>(.0230)             | -0.0136<br>(.0256)             | 0.0223<br>(.0280)              |
| Involuntarily .....          | <sup>1</sup> -.1100<br>(.0198)  | <sup>1</sup> -.0994<br>(.0203) | <sup>1</sup> -.0468<br>(.0214) | -.0347<br>(.0244)              |
| Ever self-employed:          |                                 |                                |                                |                                |
| Incorporated .....           | <sup>1</sup> .1121<br>(.0361)   | .0090<br>(.0442)               | <sup>1</sup> -.3980<br>(.0496) | <sup>1</sup> -.3691<br>(.0395) |
| Unincorporated .....         | -.0194<br>(.0201)               | <sup>1</sup> -.0758<br>(.0237) | <sup>1</sup> -.4169<br>(.0226) | <sup>1</sup> -.3488<br>(.0218) |
| Ever temporary .....         | <sup>1</sup> -.0664<br>(.0161)  | <sup>1</sup> -.0646<br>(.0161) | -.0305<br>(.0166)              | -.0347<br>(.0194)              |
| Currently working part time: |                                 |                                |                                |                                |
| Voluntarily .....            | ....                            | <sup>1</sup> -.3128<br>(.0883) | <sup>1</sup> -.3901<br>(.1239) | <sup>1</sup> -.3261<br>(.1074) |
| Involuntarily .....          | ....                            | <sup>1</sup> -.0728<br>(.0568) | <sup>1</sup> -.4194<br>(.0895) | <sup>1</sup> -.3465<br>(.0786) |
| Currently self-employed:     |                                 |                                |                                |                                |
| Incorporated .....           | ....                            | <sup>1</sup> .2540<br>(.0728)  | .0391<br>(.0599)               | -.0267<br>(.0878)              |
| Unincorporated .....         | ....                            | <sup>1</sup> .1609<br>(.0353)  | ....                           | ....                           |
| R <sup>2</sup> .....         | .2735                           | .2819                          | .1990                          | .1450                          |
| Number of observations ..... | 3,337                           | 3,337                          | 3,252                          | 3,252                          |
| <b>Women</b>                 |                                 |                                |                                |                                |
| Ever worked part time:       |                                 |                                |                                |                                |
| Voluntarily .....            | .0314<br>(.0216)                | .0323<br>(.0226)               | <sup>1</sup> -.0845<br>(.0262) | -.0449<br>(.0283)              |
| Involuntarily .....          | <sup>1</sup> -.1180<br>(.0212)  | <sup>1</sup> -.1050<br>(.0221) | <sup>1</sup> -.1106<br>(.0264) | <sup>1</sup> -.0648<br>(.0279) |
| Ever self-employed:          |                                 |                                |                                |                                |
| Incorporated .....           | -.0781<br>(.0603)               | .0056<br>(.0763)               | <sup>1</sup> -.3193<br>(.1052) | <sup>1</sup> -.4194<br>(.0843) |
| Unincorporated .....         | <sup>1</sup> -.0881<br>(.0238)  | -.0780<br>(.0282)              | <sup>1</sup> -.3825<br>(.0306) | <sup>1</sup> -.3254<br>(.0303) |
| Ever temporary .....         | <sup>1</sup> -.0381<br>(.0165)  | <sup>1</sup> -.0387<br>(.0165) | -.0001<br>(.0177)              | -.0066<br>(.0210)              |
| Currently working part time: |                                 |                                |                                |                                |
| Voluntarily .....            | ....                            | .0076<br>(.0297)               | <sup>1</sup> -.3086<br>(.0441) | <sup>1</sup> -.2738<br>(.0435) |
| Involuntarily .....          | ....                            | <sup>1</sup> -.1321<br>(.0476) | <sup>1</sup> -.4796<br>(.0682) | <sup>1</sup> -.3838<br>(.0651) |
| Currently self-employed:     |                                 |                                |                                |                                |
| Incorporated .....           | ....                            | -.2188<br>(.1223)              | -.2158<br>(.1676)              | -.0679<br>(.1749)              |
| Unincorporated .....         | ....                            | -.0324<br>(.0441)              | ....                           | ....                           |
| R <sup>2</sup> .....         | .3290                           | .3313                          | .2451                          | .1683                          |
| Number of observations ..... | 2,870                           | 2,870                          | 2,659                          | 2,659                          |

<sup>1</sup> Significant at 0.01 level.

NOTE: Equations yielding the natural logarithm of hourly wages are estimated using ordinary least squares. Health and pension equations are estimated using probits, with marginal effects reported in the table. All models also include controls for age, years of work experience, level of education, marital status, number of children, race (black), and ethnicity (Hispanic). Models that

distinguish between voluntary and involuntary part-time work (and between incorporated and unincorporated self-employment) include controls for part time undefined (and self-employed undefined). The category of currently self-employed and unincorporated drops out of the benefits models because, by definition, individuals in this category have no employer-provided benefits. Standard errors are in parentheses.

**Table 6. Effects of part-time and self-employment work experience on current wages, 1993**

| Experience or employment status | Logarithm of wage | Logarithm of wage | Logarithm of wage | Logarithm of wage |
|---------------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Men</b>                      |                   |                   |                   |                   |
| Experience:                     |                   |                   |                   |                   |
| Full time .....                 | .0428<br>(.0033)  | .0430<br>(.0034)  | .0394<br>(.0034)  | ....              |
| Part time .....                 | -.0049<br>(.0068) |                   |                   | ....              |
| Voluntary .....                 |                   | -.0094<br>(.0100) | -.0141<br>(.0118) | ....              |
| Involuntary .....               |                   | -.0154<br>(.0125) | .0062<br>(.0173)  | ....              |
| Non-self-employed .....         |                   |                   |                   | .0394<br>(.0034)  |
| Self-employed:                  |                   |                   |                   |                   |
| Incorporated .....              |                   |                   |                   | .0832<br>(.0177)  |
| Unincorporated .....            |                   |                   |                   | .0054<br>(.0071)  |
| Employment status:              |                   |                   |                   |                   |
| Ever worked part time:          |                   |                   |                   |                   |
| Voluntary .....                 |                   |                   | .0258<br>(.0270)  | -.0406<br>(.0229) |
| Involuntary .....               |                   |                   | -.0425<br>(.0272) | -.0999<br>(.0202) |
| Ever self-employed:             |                   |                   |                   |                   |
| Incorporated .....              |                   |                   | .0002<br>(.0441)  | -.0196<br>(.0544) |
| Unincorporated .....            |                   |                   | -.0728<br>(.0236) | -.0219<br>(.0262) |
| Ever temporary .....            |                   |                   | -.0600<br>(.0162) | -.0661<br>(.0161) |
| R <sup>2</sup> .....            | .2737             | .2740             | .2872             | .2882             |
| Observations .....              | 3,337             | 3,337             | 3,337             | 3,337             |
| <b>Women</b>                    |                   |                   |                   |                   |
| Experience:                     |                   |                   |                   |                   |
| Full time .....                 | .0534<br>(.0029)  | .0518<br>(.0029)  | .0502<br>(.0030)  | ....              |
| Part time .....                 | .0262<br>(.0047)  |                   |                   | ....              |
| Voluntary .....                 |                   | .0502<br>(.0057)  | .0404<br>(.0068)  | ....              |
| Involuntary .....               |                   | -.0473<br>(.0122) | -.0239<br>(.0171) | ....              |
| Non-self-employed .....         |                   |                   |                   | .0457<br>(.0030)  |
| Self-employed:                  |                   |                   |                   |                   |
| Incorporated .....              |                   |                   |                   | .1210<br>(.0350)  |
| Unincorporated .....            |                   |                   |                   | .0590<br>(.0105)  |
| Employment status:              |                   |                   |                   |                   |
| Ever worked part time:          |                   |                   |                   |                   |
| Voluntarily .....               |                   |                   | .0654<br>(.0241)  | .0306<br>(.0223)  |
| Involuntarily .....             |                   |                   | .0019<br>(.0288)  | -.1052<br>(.0221) |
| Ever self-employed:             |                   |                   |                   |                   |
| Incorporated .....              |                   |                   | .0133<br>(.0755)  | -.1123<br>(.0926) |
| Unincorporated .....            |                   |                   | -.0691<br>(.0280) | -.0900<br>(.0317) |
| Ever temporary .....            |                   |                   | -.0273<br>(.0165) | -.0365<br>(.0167) |
| R <sup>2</sup> .....            | .3247             | .3386             | .3443             | .3318             |
| Number of observations .....    | 2,870             | 2,870             | 2,870             | 2,870             |

<sup>1</sup> Significant at 0.01 level.

Note: All models include controls for age, experience, education, marital

status, children, race (black), and ethnicity (Hispanic). Models also include controls for type of experience undefined and type of part-time experience undefined. Standard errors are in parentheses.

**Table 7. Effects of changes in nontraditional employment and changes in nontraditional work experience on wage growth, 1979-93**

| Experience or employment status | Pooled ordinary least squares   | Wage growth                     | Pooled ordinary least squares  | Wage growth                   | Pooled ordinary least squares  | Wage growth                   |
|---------------------------------|---------------------------------|---------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|
| <b>Men</b>                      |                                 |                                 |                                |                               |                                |                               |
| Employment status:              |                                 |                                 |                                |                               |                                |                               |
| Part time:                      |                                 |                                 |                                |                               |                                |                               |
| Voluntary .....                 | <sup>1</sup> -0.3126<br>(.0499) | <sup>1</sup> -0.2223<br>(.0248) | ....                           | ....                          | ....                           | ....                          |
| Involuntary .....               | <sup>1</sup> -.1609<br>(.0429)  | <sup>1</sup> -.0628<br>(.0242)  | ....                           | ....                          | ....                           | ....                          |
| Self-employed:                  |                                 |                                 |                                |                               |                                |                               |
| Incorporated .....              | .1073<br>(.0602)                | .0421<br>(.0540)                | ....                           | ....                          | ....                           | ....                          |
| Unincorporated .....            | -.0008<br>(.0362)               | .0383<br>(.0316)                | ....                           | ....                          | ....                           | ....                          |
| Experience:                     |                                 |                                 |                                |                               |                                |                               |
| Full time .....                 | ....                            | ....                            | <sup>1</sup> .0403<br>(.0043)  | <sup>1</sup> .0683<br>(.0057) | ....                           | ....                          |
| Part time:                      |                                 |                                 |                                |                               |                                |                               |
| Voluntary .....                 | ....                            | ....                            | -.0147<br>(.0130)              | <sup>1</sup> .0381<br>(.0189) | ....                           | ....                          |
| Involuntary .....               | ....                            | ....                            | .0022<br>(.0263)               | .0261<br>(.0265)              | ....                           | ....                          |
| Non-self-employed .....         | ....                            | ....                            | ....                           | ....                          | <sup>1</sup> .0434<br>(.0050)  | <sup>1</sup> .0998<br>(.0085) |
| Self-employed:                  |                                 |                                 |                                |                               |                                |                               |
| Incorporated .....              | ....                            | ....                            | ....                           | ....                          | <sup>1</sup> .0679<br>(.0165)  | <sup>1</sup> .0973<br>(.0269) |
| Unincorporated .....            | ....                            | ....                            | ....                           | ....                          | .0145<br>(.0094)               | <sup>1</sup> .0720<br>(.0113) |
| Ever temporary .....            | ....                            | ....                            | <sup>1</sup> -.0762<br>(.0168) | .0145<br>(.0181)              | <sup>1</sup> -.0800<br>(.0168) | .0127<br>(.0182)              |
| R <sup>2</sup> .....            | .2066                           | .1019                           | .2284                          | .1053                         | .2252                          | .1065                         |
| Number of observations .....    | 14,581                          | 14,581                          | 14,581                         | 14,581                        | 14,581                         | 14,581                        |
| <b>Women</b>                    |                                 |                                 |                                |                               |                                |                               |
| Employment status:              |                                 |                                 |                                |                               |                                |                               |
| Part time:                      |                                 |                                 |                                |                               |                                |                               |
| Voluntary .....                 | -.0592<br>(.0309)               | <sup>1</sup> -.0999<br>(.0186)  | ....                           | ....                          | ....                           | ....                          |
| Involuntary .....               | <sup>1</sup> -.2303<br>(.0369)  | <sup>1</sup> -.0840<br>(.0264)  | ....                           | ....                          | ....                           | ....                          |
| Self-employed:                  |                                 |                                 |                                |                               |                                |                               |
| Incorporated .....              | .0719<br>(.1035)                | .1117<br>(.1239)                | ....                           | ....                          | ....                           | ....                          |
| Unincorporated .....            | -.0246<br>(.0731)               | .0735<br>(.0627)                | ....                           | ....                          | ....                           | ....                          |
| Experience:                     |                                 |                                 |                                |                               |                                |                               |
| Full time .....                 | ....                            | ....                            | <sup>1</sup> .0492<br>(.0043)  | <sup>1</sup> .0471<br>(.0054) | ....                           | ....                          |
| Part time:                      |                                 |                                 |                                |                               |                                |                               |
| Voluntary .....                 | ....                            | ....                            | <sup>1</sup> -.0466<br>(.0101) | <sup>1</sup> .0523<br>(.0101) | ....                           | ....                          |
| Involuntary .....               | ....                            | ....                            | -.0136<br>(.0200)              | .0071<br>(.0238)              | ....                           | ....                          |
| Non-self-employed .....         | ....                            | ....                            | ....                           | ....                          | <sup>1</sup> .0559<br>(.0047)  | <sup>1</sup> .0699<br>(.0073) |
| Self-employed:                  |                                 |                                 |                                |                               |                                |                               |
| Incorporated .....              | ....                            | ....                            | ....                           | ....                          | .0090<br>(.0422)               | .0611<br>(.0404)              |
| Unincorporated .....            | ....                            | ....                            | ....                           | ....                          | <sup>1</sup> .0712<br>(.0172)  | <sup>1</sup> .0634<br>(.0149) |
| Ever temporary .....            | ....                            | ....                            | -.0293<br>(.0176)              | -.0211<br>(.0203)             | -.0259<br>(.0173)              | -.0191<br>(.0203)             |
| R <sup>2</sup> .....            | .2433                           | .1005                           | .2637                          | .1056                         | .2685                          | .1079                         |
| Number of observations .....    | 10,847                          | 10,847                          | 10,847                         | 10,847                        | 10,847                         | 10,847                        |

<sup>1</sup> Significant at 0.01 level.

NOTE: All models include controls for age, education, marital status (including married and previously married), number of children, and year; ordinary least squares models control for race and ethnicity as well. The second and third pair of models also control for whether the individual ever worked part time or was self-employed. The pooled ordinary least squares models include

observations from 1984 to 1993. In the wage growth models, all variables are expressed as the difference between the value in the current year (ranging from 1984 to 1993) and the value 5 years earlier (ranging from 1979 to 1988). All models are weighted (using the inverse probability of appearing in the sample) to control for the unbalanced panel, and the standard errors are corrected for cluster sampling. Standard errors are in parentheses.

## Footnotes

ACKNOWLEDGMENT: We thank Rebecca Blank, Françoise Carré, Pam Joshi, and Chris Tilly for their very helpful suggestions. Andrew Lenney provided excellent research assistance.

<sup>1</sup> For profiles of these workers, see Anne E. Polivka, "Contingent and alternative work arrangements, defined," pp. 3-9, and "A profile of contingent workers," pp. 10-21; and Sharon R. Cohany, "Workers in alternative employment arrangements," pp. 31-45. For analyses of their reasons for entering into such arrangements, see Polivka, "Into contingent and alternative employment: by choice?" pp. 55-74; and Donna S. Rothstein, "Entry into and consequences of nonstandard work arrangements," pp. 75-82.

<sup>2</sup> Steven Hipple and Jay Stewart, "Earnings and benefits of contingent and noncontingent workers," pp. 22-30; and Hipple and Stewart, "Earnings and benefits of workers in alternative work arrangements," pp. 46-54.

<sup>3</sup> Rothstein, "Nonstandard work arrangements."

<sup>4</sup> See, for example, Rebecca M. Blank, "Contingent Work in a Changing Labor Market," in Richard Freeman and Peter Gottschalk, eds., *Generating Jobs* (New York, Russell Sage Foundation, 1998), pp. 258-94.

<sup>5</sup> Rothstein, "Nonstandard work arrangements."

<sup>6</sup> See Kathleen Barker, "Changing Assumptions and Contingent Solutions: The Costs and Benefits of Women Working Full- and Part-Time," *Sex Roles*, January 1993, pp. 47-71; and Chris Tilly, *Half a Job: Bad and Good Part-Time Jobs in a Changing Labor Market* (Philadelphia, Temple University Press, 1996).

<sup>7</sup> For instance, young people in alternative work arrangements may not be unduly concerned about their wages rising less in later years or that they are less likely to have health insurance or pension benefits. Nor will many of them look ahead to the time when they may have greater problems finding new jobs when they are older, not only because of age discrimination in hiring, but because their discontinuous employment history is likely to be viewed unfavorably by potential employers. Similarly, single heads of families often have to take nonstandard jobs when they have young children, but will find it very difficult to manage with low earnings and meager benefits when they are faced with education expenses, occasional medical emergencies, and, finally, retirement without adequate provisions for any of these eventualities.

<sup>8</sup> Rebecca M. Blank, "Introduction," in Rebecca M. Blank, ed., *Social Protection versus Economic Flexibility* (Chicago, University of Chicago Press), 1994, pp. 1-19; and Jerry A. Jacobs and Zhenchao Qian, "The Duration of Employment in Part-Time Jobs," unpublished paper, University of Pennsylvania, May 1994, explored dynamic labor supply choices between part-time and full-time work. Ethel Jones and James Long, "Part-Week Work and Human Capital Investment by Married Women," *Journal of Human Resources*, vol. 14, no. 4, 1979, pp. 563-78; and Mary Corcoran, Greg Duncan, and Michael Ponza, "A Longitudinal Analysis of White Women's Wages," *Journal of Human Resources*, winter 1983, pp. 497-520, showed that, at least in the short run, part-time work is related to lower wage growth.

<sup>9</sup> We use the term *nontraditional* here to avoid confusion, because the workers we are looking at differ somewhat from the workers included in the BLS definition of nonstandard employment.

<sup>10</sup> R. Leppel and S. H. Clain, "Determinants of Voluntary and Involuntary Part-Time Employment," *Eastern Economic Journal*, winter 1993, pp. 59-70.

<sup>11</sup> Obviously, this definition of a temporary worker is not ideal, but it is the best that can be done with the NLSY data. One problem is that the question is asked after the worker has left the job, so biased information may result if people use this category to describe jobs that ended for reasons other than that the position was temporary (such as involuntary termination). In that case, we might overestimate the number of people who have held temporary jobs. We might also overestimate the negative effects of such employment; however, in this regard, it is reassuring to note that we in fact find no long-run negative effect of temporary employment once we control for unobserved heterogeneity. A second problem is that the NLSY question may yield information that is at odds with how one customarily thinks of

temporary work. A person may report that a job held for a number of years was temporary, whereas typically, temporary jobs are short term. Still, there is in fact no agreed-upon time limit for a temporary job, and thus, the implicit definition provided by the worker is likely to be as valid as any other. A third problem is that the job may not in fact have been temporary, but may have been viewed as temporary by the jobholder. It would be preferable to distinguish these two situations, as we do between voluntary and involuntary part-time work, but the data do not allow us to do this. Note, however, that in both these instances, the job was in fact temporary, just as both voluntary and involuntary part-timers are counted as part-time workers.

<sup>12</sup> It is important to note that the nontraditional categories are not mutually exclusive. (That is, an individual may belong to more than one category.)

<sup>13</sup> More formally, the model takes the general form  $\ln w_i = \beta_0 + \beta_1 \text{age}_i + \beta_2 \text{exp}_i + \beta_3 \text{ed1}_i + \beta_4 \text{ed2}_i + \beta_5 \text{ed3}_i + \beta_6 \text{mar}_i + \beta_7 \text{child}_i + \beta_8 \text{PT}_i + \beta_9 \text{SE}_i + \mu_i$ , where  $\ln w$  = natural logarithm of hourly wage,  $\text{age}$  = age in years,  $\text{exp}$  = actual work experience in years,  $\text{ed1}$  = college degree or higher,  $\text{ed2}$  = some college,  $\text{ed3}$  = high school degree only ( $\text{ed4}$ , less than high school, is the omitted category),  $\text{mar}$  = married,  $\text{child}$  = number of children,  $\text{PT}$  = dummy variable for part time,  $\text{SE}$  = dummy variable for self-employed, and  $\mu_i$  = a disturbance term that is assumed to be independent and identically distributed. All wages are in 1993 dollars. Extreme values (wages below 40 percent of the minimum wage and wages above \$100 per hour in 1993 dollars, together representing less than 1 percent of the sample) are excluded.

<sup>14</sup> See Jones and Long, "Part-Week Work"; and Corcoran, Duncan, and Ponza, "Longitudinal Analysis."

<sup>15</sup> See Jane Waldfogel, "The Effect of Children on Women's Wages," *American Sociological Review*, vol. 62, 1997, pp. 209-17.

<sup>16</sup> More formally, this wage growth or difference model takes the general form  $\Delta \ln w_i = \beta_0 + \beta_1 \Delta \text{age}_i + \beta_2 \Delta \text{exp}_i + \beta_3 \Delta \text{ed1}_i + \beta_4 \Delta \text{ed2}_i + \beta_5 \Delta \text{ed3}_i + \beta_6 \Delta \text{mar}_i + \beta_7 \Delta \text{child}_i + \beta_8 \Delta \text{PT}_i + \beta_9 \Delta \text{SE}_i + \Delta \alpha_i + \Delta \mu_i$ , where the variables are defined as in footnote 13 and where  $\alpha_i$  = a fixed effect that may be correlated with one or more independent variables and  $\mu_i$  = a disturbance term that is assumed to be independent and identically distributed. Because individuals contribute multiple observations and different numbers of observations, the standard errors are corrected for clustered sampling and weighted regressions are used. Other types of fixed-effect models could be estimated, but this model is intuitively the most straightforward, because the dependent variable is simply the change in wage from one period to the next.

<sup>17</sup> These proportions are consistent with those found in other research. For example, Thomas Nardone, "Part-Time Employment: Reasons, Demographics, and Trends," *Journal of Labor Research*, summer 1995, pp. 275-92, reports that 4.6 percent of men and 19.2 percent of women aged 25 to 54 were employed part time in 1993, and John E. Bregger, "Measuring self-employment in the United States," *Monthly Labor Review*, January-February 1996, pp. 3-9, finds that 7 percent of men and 5 percent of women aged 25 to 34 were self-employed in 1994.

<sup>18</sup> See Rebecca M. Blank, "Understanding Part-Time Work," in Laurie Bassi and David Crawford, eds., *Research in Labor Economics*, vol. 11 (Greenwich, CT, JAI Press, 1990), pp. 137-58; and Tilly, *Half a Job*.

<sup>19</sup> Models estimated with a 1-year and a 3-year interval produce similar results.

<sup>20</sup> Marianne A. Ferber and Jane Waldfogel, *The "Contingent" Labor Force: Blessing and/or Curse*, Radcliffe Public Policy Institute paper, 1996.

<sup>21</sup> See, for instance, Theresa Devine, "Characteristics of self-employed women in the United States," *Monthly Labor Review*, March 1994, pp. 20-24.

<sup>22</sup> See Alice Nakamura and Masao Nakamura, "Part-Time and Full-Time Work Behavior of Married Women," *Canadian Journal of Economics*, May 1983, pp. 229-57. These researchers found that Canadian wives with higher potential wage rates were more likely to be employed, but that, among women who were employed, those who were paid more per hour worked fewer hours.

## Workers in alternative employment arrangements: a second look

*Both the proportion and characteristics of workers in four alternative employment arrangements in February 1997 were little different from 2 years earlier; the groups continue to be highly diverse*

*contingent temporary*

Sharon R. Cohany

In February 1997, information on workers in four alternative employment arrangements was obtained from the Current Population Survey (CPS). This marked the second time such information was collected through the CPS; the first was 2 years earlier. In general, the proportion of total employment accounted for by each arrangement, as well as the characteristics of the workers, was little changed since the previous survey in February 1995.<sup>1</sup>

The second survey confirmed that the characteristics of workers differed significantly between the arrangements as well as within them. People employed in two of these arrangements, *temporary help agency workers* and *contract company workers*, are employees of one company and carry out assignments for another. *Workers who are on call* do not have an established schedule for reporting to work. And workers in the largest group, *independent contractors*, are not employees in the traditional sense, but rather work for themselves.

About 12.6 million people, or 1 in 10 workers, were classified into one of these four alternative employment arrangements in February 1997, the same proportion as in the February 1995 survey. The proportions accounted for by each arrangement are shown in exhibit 1 and table 1. By far the largest arrangement was independent contractors, with 8.5 million, followed by on-call workers (2 million), temporary help agency workers (1.3 million), and contract company employees (800,000). The number of workers in all of these arrangements combined increased by 3 percent (400,000 people) over the 2-year period, about

the same rate of growth as employment overall.

The rest of this article covers the demographic and job characteristics, earnings, and benefits of workers in each of the alternative arrangements in turn. Comparisons often are made with workers in traditional arrangements, defined here as those who do not fall into any of the alternative-arrangement categories. A companion article in this issue by Steven Hipple gives detailed explanations of the four categories (see appendix, pages 34–35) and presents a profile of contingent workers from the same CPS supplement. It should be noted that the classification of workers in alternative arrangements was made independently of their contingent status—that is, whether their job was temporary. Workers in alternative arrangements could be contingent as well, but were not automatically so. In fact, most workers in alternative arrangements had permanent jobs and hence were not contingent. Likewise, most contingent workers had regularly scheduled jobs for which they were hired directly and thus were not in an alternative arrangement.

While some researchers have considered part-time work to be an alternative arrangement, the classification of workers in alternative arrangements in this study was made irrespective of their part-time status. Part-time work is defined in the CPS solely on the basis of a person's usual weekly hours (less than 35 at all jobs combined). Part-time workers were classified in an alternative arrangement only if they met the criteria for that arrangement. Most part-time workers did

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**Exhibit 1. Workers in alternative arrangements as a percent of total employment, February 1995 and 1997**

| Type of alternative arrangement                                                                                                                                                                                                              | Percent of total employed, February 1995 | Percent of total employed, February 1997 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Independent contractors</b><br>Workers identified as independent contractors, independent consultants, or freelance workers, whether they were self-employed or wage and salary workers .....                                             | 6.7                                      | 6.7                                      |
| <b>On-call workers</b><br>Workers called to work only as needed, although they can be scheduled to work for several days or weeks in a row .....                                                                                             | 1.6                                      | 1.6                                      |
| <b>Temporary help agency workers</b><br>Workers paid by a temporary help agency, whether or not their job actually was temporary .....                                                                                                       | 1.0                                      | 1.0                                      |
| <b>Workers provided by contract firms</b><br>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 ..... | .5                                       | .6                                       |

not, in fact, fall into an alternative arrangement, and, conversely, a majority of workers in alternative arrangements worked full time.

### Independent contractors

In February 1997, 8.5 million people were identified as independent contractors, independent consultants, or freelance workers. Referred to as independent contracting for short, this category was by far the largest of the alternative arrangements, accounting for 6.7 percent of all workers and two-thirds of workers in alternative arrangements. Both proportions were essentially unchanged between 1995 and 1997, as were the major characteristics of the group. The rate of growth of these workers over the 2-year period, 1.8 percent, was somewhat slower than that of traditional workers (2.8 percent).

Independent contractors did not have to be identified as self-employed in the basic cps questionnaire, but, in fact, most (88 percent) were. On the flip side, of all the self-employed, about one-half were identified as independent contractors, rather than other types of self-employed individuals, such as restaurant or shop owners.<sup>2</sup>

**Characteristics.** Independent contractors differed from traditional workers in significant ways. For instance, two-thirds of independent contractors were men, compared with slightly more than one-half of traditional workers. Because running one's own business often requires significant human and financial capital, it is not surprising that independent contrac-

tors were older and had more schooling than the average worker.<sup>3</sup> Nearly 4 out of 5 independent contractors were at least 35 years old, compared with 3 out of 5 traditional workers. Also, 34 percent of independent contractors between the ages of 25 and 64 had a college degree, almost 5 percentage points higher than the proportion of traditional workers. (See tables 2 and 3.)

Other traits of independent contractors were at least partly a reflection of their older age profile. Nearly 70 percent of independent contractors were married, compared with 59 percent of traditional workers. About 54 percent of women in the arrangement combined independent contracting with raising children, roughly the same percentage as that for traditional workers, although the mothers working as independent contractors were more likely than other mothers to have preschoolers. (See table 4.) Mothers maintaining families on their own (with no husband present) made up a very small part of the group.<sup>4</sup>

**Part-time status.** About 26 percent of independent contractors worked part time (less than 35 hours) in a typical week, compared with 18 percent of traditional workers. (See table 5.) This difference reflects a much greater tendency for independent contractors—especially women—in the central working ages (25 to 64) to work part time. Adult men who worked part time as independent contractors were more likely to prefer to work full time than were their traditional counterparts (42 and 31 percent, respectively).

The distribution of hours worked by independent contractors illustrates the diversity that can be found within a given

arrangement. While part-time work was relatively common, some independent contractors worked very long hours. This is reflected in the average workweek for full-time workers in that arrangement, 46.3 hours, about 4 hours longer than the workweek of traditional workers. Nearly 30 percent of independent contractors worked 49 hours or more in a typical week, compared with only 17 percent of traditional workers. Women who worked full time as independent contractors put in almost as many hours as men.

*Occupation and industry.* The occupational and industry distributions of independent contractors were also unlike those of traditional workers, with the former group more likely than the latter to hold managerial, sales, or precision production jobs and less likely to work in technical, administrative support, or operator, fabricator, and laborer positions. The most common occupations for male independent contractors were managers, construction craftworkers, proprietors, writers and artists, and real estate and insurance

**Table 1. Incidence of alternative and traditional work arrangements, by selected characteristics, February 1997**

[Percent distribution]

| Characteristic                         | Total employed (thousands) | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|----------------------------------------|----------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                        |                            | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Age and sex                            |                            |                                       |                 |                               |                                    |                                       |
| Total, 16 years and older .....        | 126,742                    | 6.7                                   | 1.6             | 1.0                           | 0.6                                | 90.1                                  |
| 16 to 19 years .....                   | 6,031                      | 1.1                                   | 3.2             | 1.3                           | .3                                 | 94.1                                  |
| 20 to 24 years .....                   | 11,958                     | 1.7                                   | 2.0             | 1.8                           | .6                                 | 93.9                                  |
| 25 to 34 years .....                   | 31,647                     | 4.9                                   | 1.4             | 1.2                           | .9                                 | 91.6                                  |
| 35 to 44 years .....                   | 35,282                     | 7.5                                   | 1.4             | .8                            | .7                                 | 89.6                                  |
| 45 to 54 years .....                   | 26,146                     | 8.6                                   | 1.1             | .8                            | .4                                 | 89.1                                  |
| 55 to 64 years .....                   | 12,032                     | 9.7                                   | 1.6             | .7                            | .5                                 | 87.4                                  |
| 65 years and older .....               | 3,646                      | 16.3                                  | 3.5             | 1.0                           | .6                                 | 78.7                                  |
| Men, 16 years and older .....          |                            |                                       |                 |                               |                                    |                                       |
| 16 to 19 years .....                   | 67,931                     | 8.3                                   | 1.4             | .9                            | .8                                 | 88.6                                  |
| 20 to 24 years .....                   | 3,068                      | .8                                    | 3.5             | 1.2                           | .3                                 | 94.2                                  |
| 25 to 34 years .....                   | 6,269                      | 2.0                                   | 2.0             | 2.0                           | 1.0                                | 92.8                                  |
| 35 to 44 years .....                   | 17,185                     | 5.6                                   | 1.4             | 1.1                           | 1.1                                | 90.8                                  |
| 45 to 54 years .....                   | 18,965                     | 9.2                                   | 1.3             | .5                            | .9                                 | 88.1                                  |
| 55 to 64 years .....                   | 13,775                     | 10.9                                  | 1.0             | .6                            | .5                                 | 87.0                                  |
| 65 years and older .....               | 6,558                      | 12.8                                  | 1.2             | .4                            | .6                                 | 84.9                                  |
| Women, 16 years and older .....        | 2,111                      | 20.5                                  | 2.5             | 1.1                           | .3                                 | 75.7                                  |
| Women, 16 years and older .....        |                            |                                       |                 |                               |                                    |                                       |
| 16 to 19 years .....                   | 58,811                     | 4.8                                   | 1.7             | 1.2                           | .4                                 | 91.9                                  |
| 20 to 24 years .....                   | 2,963                      | 1.4                                   | 2.9             | 1.4                           | .2                                 | 94.1                                  |
| 25 to 34 years .....                   | 5,689                      | 1.4                                   | 1.9             | 1.6                           | .1                                 | 95.1                                  |
| 35 to 44 years .....                   | 14,462                     | 4.1                                   | 1.5             | 1.4                           | .6                                 | 92.5                                  |
| 45 to 54 years .....                   | 16,317                     | 5.4                                   | 1.6             | 1.2                           | .5                                 | 91.4                                  |
| 55 to 64 years .....                   | 12,371                     | 6.0                                   | 1.2             | 1.1                           | .3                                 | 91.4                                  |
| 65 years and older .....               | 5,474                      | 6.1                                   | 2.1             | 1.1                           | .4                                 | 90.3                                  |
| Race and Hispanic origin               |                            |                                       |                 |                               |                                    |                                       |
| White .....                            | 1,535                      | 10.6                                  | 5.1             | .9                            | 1.0                                | 82.8                                  |
| Black .....                            | 107,899                    | 7.1                                   | 1.7             | .9                            | .6                                 | 89.7                                  |
| Hispanic origin .....                  | 13,465                     | 3.3                                   | 1.2             | 2.1                           | .8                                 | 92.7                                  |
| Full- and part-time status             |                            |                                       |                 |                               |                                    |                                       |
| Full-time workers .....                | 12,026                     | 5.1                                   | 2.2             | 1.3                           | .4                                 | 90.9                                  |
| Part-time workers .....                | 102,813                    | 6.1                                   | .9              | 1.0                           | .7                                 | 91.4                                  |
| Educational attainment (ages 25 to 64) |                            |                                       |                 |                               |                                    |                                       |
| Less than a high school diploma .....  | 23,929                     | 9.3                                   | 4.4             | 1.1                           | .6                                 | 84.6                                  |
| High school graduate, no college ..... | 10,135                     | 6.5                                   | 1.9             | 1.1                           | .5                                 | 90.0                                  |
| Less than a bachelor's degree .....    | 34,261                     | 6.7                                   | 1.2             | .9                            | .8                                 | 90.4                                  |
| College graduate .....                 | 29,420                     | 6.9                                   | 1.6             | 1.2                           | .6                                 | 89.8                                  |
|                                        | 31,292                     | 8.3                                   | 1.2             | .7                            | .7                                 | 89.1                                  |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to total employed because a small number of workers are both "on call" and "provided by contract firms" and total employed includes day laborers, an

alternative arrangement not shown separately. Details for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

**Table 2. Employed persons with alternative and traditional work arrangements, by selected characteristics, February 1997**

[Percent distribution]

| Characteristic                              | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|---------------------------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                             | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Age and sex                                 |                                       |                 |                               |                                    |                                       |
| Total, 16 years and older (thousands) ..... | 8,456                                 | 1,996           | 1,300                         | 809                                | 114,199                               |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| 16 to 19 years .....                        | .8                                    | 9.7             | 6.1                           | 2.0                                | 5.0                                   |
| 20 to 24 years .....                        | 2.4                                   | 11.9            | 16.5                          | 8.2                                | 9.8                                   |
| 25 to 34 years .....                        | 18.3                                  | 22.4            | 30.3                          | 34.2                               | 25.4                                  |
| 35 to 44 years .....                        | 31.1                                  | 25.4            | 21.5                          | 31.1                               | 27.7                                  |
| 45 to 54 years .....                        | 26.5                                  | 14.4            | 16.2                          | 14.2                               | 20.4                                  |
| 55 to 64 years .....                        | 13.9                                  | 9.7             | 6.7                           | 7.7                                | 9.2                                   |
| 65 years and older .....                    | 7.0                                   | 6.5             | 2.8                           | 2.7                                | 2.5                                   |
| Men, 16 years and older .....               |                                       |                 |                               |                                    |                                       |
| 16 to 19 years .....                        | .3                                    | 5.3             | 2.8                           | 1.1                                | 2.5                                   |
| 20 to 24 years .....                        | 1.5                                   | 6.4             | 9.6                           | 7.7                                | 5.1                                   |
| 25 to 34 years .....                        | 11.4                                  | 11.8            | 15.2                          | 24.0                               | 13.7                                  |
| 35 to 44 years .....                        | 20.7                                  | 12.1            | 6.9                           | 22.0                               | 14.6                                  |
| 45 to 54 years .....                        | 17.7                                  | 6.9             | 6.2                           | 9.1                                | 10.5                                  |
| 55 to 64 years .....                        | 9.9                                   | 3.9             | 2.2                           | 5.1                                | 4.9                                   |
| 65 years and older .....                    | 5.1                                   | 2.6             | 1.8                           | .9                                 | 1.4                                   |
| Women, 16 years and older .....             |                                       |                 |                               |                                    |                                       |
| 16 to 19 years .....                        | .5                                    | 4.3             | 3.2                           | .7                                 | 2.4                                   |
| 20 to 24 years .....                        | .9                                    | 5.5             | 6.9                           | .5                                 | 4.7                                   |
| 25 to 34 years .....                        | 7.0                                   | 10.6            | 15.2                          | 10.3                               | 11.7                                  |
| 35 to 44 years .....                        | 10.4                                  | 13.4            | 14.5                          | 9.1                                | 13.1                                  |
| 45 to 54 years .....                        | 8.8                                   | 7.5             | 10.0                          | 5.1                                | 9.9                                   |
| 55 to 64 years .....                        | 4.0                                   | 5.8             | 4.5                           | 2.6                                | 4.3                                   |
| 65 years and older .....                    | 1.9                                   | 3.9             | 1.1                           | 1.9                                | 1.1                                   |
| Race and Hispanic origin                    |                                       |                 |                               |                                    |                                       |
| White .....                                 | 90.7                                  | 89.3            | 75.1                          | 81.6                               | 84.8                                  |
| Black .....                                 | 5.3                                   | 7.8             | 21.3                          | 12.9                               | 10.9                                  |
| Hispanic origin .....                       | 7.3                                   | 13.3            | 12.3                          | 6.3                                | 9.6                                   |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups. Details for other characteristics may not sum to totals because of rounding.

salespersons. For women, the most frequently occurring occupations were managers, writers and artists, real estate and insurance salespersons, door-to-door sales, and child care providers. Compared with traditional workers, independent contractors were more frequently employed in the agriculture, construction, and services industries. (See tables 6 and 7.)

**Preference and reason for arrangement.** One of the most striking characteristics of independent contractors has to do with job satisfaction. Compared with workers in the other alternative arrangements, independent contractors were quite content with their employment arrangement, with 84 percent of the group preferring that arrangement to a traditional job. (See table 8.) Further, about three-fourths of independent contractors gave a personal reason for being in the arrangement. (See table 9.) Among men, most said they worked as an independent contrac-

tor because they liked being their own boss. Among women, the most common reasons given were the flexibility of scheduling and the ability to meet family obligations that the arrangement afforded. Even among those who said they would prefer a traditional job, a majority gave a personal, rather than an economic, reason for remaining in the arrangement.

**Tenure and contingency.** As in February 1995, only a small fraction of independent contractors reported that they were contingent workers—3.5 percent in February 1997. (See table 10.) This remained the lowest proportion by far of the alternative arrangements. In effect, the vast majority of independent contractors believed that they could continue in the arrangement for as long as they wished.

Independent contractors had been in the arrangement for a relatively long time—7.7 years (median), considerably longer

than traditional workers had been with their current employer (4.8 years). More than 40 percent of independent contractors had at least 10 years of tenure in the arrangement, and 18 percent had 20 years or more. These percentages were considerably higher than those for traditional workers, in part a reflection of the older ages of independent contractors. (See table 11.) Men in the independent contracting arrangement had a lengthier average tenure than women (9.2 years and 5.6 years, respectively), but both exceeded the tenure for their counterparts in traditional jobs.

The lengthy tenure of independent contractors is consistent with the high level of job satisfaction and the low level of contingency they report. If corporate employees are being forced out of "regular" jobs and into working for themselves on a large scale, as some have asserted, there is scant evidence in these data.

***Paid employees.*** Most independent contractors worked alone; only 25 percent had employees. Of these, nearly three-fourths had fewer than six employees. Men were twice as likely as women to have at least one employee, but even among the men, the proportion was only 30 percent. The self-employed who were not independent contractors were much more likely to have paid employees than were the independent contractors. This is because many of the former were operating businesses, such as restaurants and shops, that typically require workers in addition to the owner.

About 23 percent of independent contractors who reported that they were self-employed had incorporated their businesses, compared with 34 percent of the other self-employed. Supporting the idea that the more substantial businesses are incorporated, independent contractors who had incorporated their businesses were more than three times as likely to retain a paid staff as those whose businesses were unincorporated (59 percent, compared with 18 percent).

***Earnings and benefits.*** Earnings of independent contractors who usually worked full time were higher (by 15 percent, on average) than those of workers in traditional arrangements. This differential reflects several factors, including the older age profile (and therefore experience levels) of independent contractors and their predominance in the higher paying occupational categories. The picture was very different by gender, however, as earnings of men in the independent contracting arrangement exceeded those of their counterparts in traditional arrangements, while earnings of female independent contractors were less than those of their traditional counterparts. (See table 12.)

Among independent contractors, men's earnings (\$621) were more than 50 percent higher than women's (\$409). Among traditional workers, the difference was 28 percent. The relatively large gender gap reflects in part the men's longer tenure as independent contractors. For both men and women in the arrangement, earnings peaked in the

**Table 3. Employed persons with alternative and traditional work arrangements, by educational attainment and sex, February 1997**

| Educational attainment and sex              | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|---------------------------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                             | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Total, 25 to 64 years (thousands) .....     | 7,590                                 | 1,437           | 970                           | 705                                | 94,424                                |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Less than a high school diploma .....       | 8.7                                   | 13.4            | 11.1                          | 7.1                                | 9.7                                   |
| High school graduate, no college .....      | 30.3                                  | 28.7            | 30.7                          | 36.9                               | 32.8                                  |
| Less than a bachelor's degree .....         | 26.8                                  | 32.0            | 36.3                          | 23.3                               | 28.0                                  |
| College graduate .....                      | 34.1                                  | 25.9            | 21.9                          | 32.7                               | 29.5                                  |
| Men, 25 to 64 years old (thousands) .....   | 5,047                                 | 692             | 397                           | 486                                | 49,873                                |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Less than a high school diploma .....       | 9.9                                   | 18.6            | 13.9                          | 6.4                                | 11.3                                  |
| High school graduate, no college .....      | 31.3                                  | 33.4            | 27.5                          | 35.6                               | 31.9                                  |
| Less than a bachelor's degree .....         | 25.2                                  | 30.3            | 35.1                          | 24.9                               | 26.4                                  |
| College graduate .....                      | 33.5                                  | 17.6            | 23.5                          | 33.1                               | 30.4                                  |
| Women, 25 to 64 years old (thousands) ..... | 2,543                                 | 745             | 573                           | 219                                | 44,551                                |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Less than a high school diploma .....       | 6.2                                   | 8.6             | 9.2                           | 9.1                                | 7.9                                   |
| High school graduate, no college .....      | 28.4                                  | 24.3            | 33.0                          | 39.5                               | 33.8                                  |
| Less than a bachelor's degree .....         | 30.0                                  | 33.6            | 37.2                          | 20.0                               | 29.8                                  |
| College graduate .....                      | 35.3                                  | 33.6            | 20.6                          | 31.4                               | 28.5                                  |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding.

**Table 4. Employed women in alternative and traditional work arrangements, by marital status and presence and age of children, February 1997**

[Percent distribution]

| Characteristic                          | Total employed | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|-----------------------------------------|----------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                         |                | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| All marital statuses                    |                |                                       |                 |                               |                                    |                                       |
| Employed women, total (thousands) ..... | 58,811         | 2,824                                 | 1,017           | 719                           | 244                                | 54,019                                |
| Spouses/reference persons, total .....  | 39,771         | 2,180                                 | 687             | 431                           | 159                                | 36,324                                |
| Percent .....                           | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| With children under 18 years .....      | 56.3           | 53.6                                  | 61.0            | 48.0                          | 66.0                               | 56.4                                  |
| With children under 6 years .....       | 22.7           | 25.6                                  | 26.6            | 21.8                          | 32.7                               | 22.4                                  |
| With children 6 to 17 years .....       | 33.6           | 28.0                                  | 34.2            | 26.2                          | 33.3                               | 34.0                                  |
| With no children under 18 years .....   | 43.7           | 46.4                                  | 39.2            | 52.0                          | 34.0                               | 43.6                                  |
| Married, spouse present                 |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....       | 32,543         | 1,896                                 | 556             | 319                           | 140                                | 29,639                                |
| Spouses/reference persons, total .....  | 32,082         | 1,881                                 | 552             | 309                           | 136                                | 29,211                                |
| Percent .....                           | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| With children under 18 years .....      | 53.7           | 51.5                                  | 62.3            | 40.1                          | 61.0                               | 53.7                                  |
| With children under 6 years .....       | 22.6           | 26.0                                  | 29.0            | 16.8                          | 31.6                               | 22.3                                  |
| With children 6 to 17 years .....       | 31.0           | 25.4                                  | 33.3            | 23.3                          | 29.4                               | 31.4                                  |
| With no children under 18 years .....   | 46.3           | 48.5                                  | 37.7            | 59.9                          | 38.2                               | 46.3                                  |
| All other marital statuses              |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....       | 26,268         | 928                                   | 461             | 400                           | 104                                | 24,380                                |
| Spouses/reference persons, total .....  | 7,689          | 299                                   | 135             | 122                           | 23                                 | 7,113                                 |
| Percent .....                           | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| With children under 18 years .....      | 67.3           | 67.2                                  | 54.8            | 68.0                          | ( <sup>1</sup> )                   | 67.5                                  |
| With children under 6 years .....       | 23.0           | 23.1                                  | 17.0            | 34.4                          | ( <sup>1</sup> )                   | 22.9                                  |
| With children 6 to 17 years .....       | 44.3           | 44.1                                  | 37.8            | 33.6                          | ( <sup>1</sup> )                   | 44.6                                  |
| With no children under 18 years .....   | 32.7           | 32.8                                  | 45.2            | 32.0                          | ( <sup>1</sup> )                   | 32.5                                  |

<sup>1</sup>Percentage not shown where base is less than 75,000.

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding. Estimates by presence and age of children are only for women who are either the spouse of the reference person or the reference person herself—that is, the person in whose name the home is owned or rented.

45- to 54-year-old age category, the same as for traditional workers.

Nearly three-fourths of independent contractors had health insurance coverage. Men obtained it most often by purchasing it on their own (36 percent), followed by obtaining it through their spouse or other family member (19 percent). Women obtained health insurance most often through a spouse or other family member (38 percent), followed by purchasing it on their own (25 percent). Women were more likely than men to have health insurance coverage. (See table 13.)

Pension coverage was less common than health insurance coverage. About 37 percent of independent contractors reported some type of pension coverage, often a tax-deferred savings account, such as an individual retirement account or a Keogh plan. Men and women were about equally likely to have pension coverage, but blacks and Hispanics were far less likely than whites to have coverage. In contrast, among traditional workers, men were somewhat more likely than women, and whites and blacks were considerably more likely

than Hispanics, to have coverage.

In sum, independent contracting was made up disproportionately of middle-aged workers who had relatively high levels of education and experience and, typically, were well compensated. These workers reported a widespread preference for working on their own, and very few were contingent—that is, they viewed their employment arrangement as permanent.

### On-call workers

Some workers report to the job only when specifically asked to do so, although they can be scheduled to work several days or weeks in a row. In the February supplements, these individuals are referred to as on-call workers. Workers who often are on call are substitute teachers, construction workers, nurses, and truckdrivers. (People with regularly scheduled work that might include periods of being on call at unusual hours, such as medical residents or computer technicians,

were not included in this category.)

In February 1997, there were 2 million on-call workers, and they accounted for 1.6 percent of all employment. Both figures were about the same as 2 years earlier.

**Characteristics.** The demographic characteristics of on-call workers were similar to those of traditional workers, although on-call workers were somewhat more likely to be women and youths. (See table 2.) Slightly more than one-half (51 percent) of on-call workers were women, compared with about 47 percent of traditional workers. A somewhat larger proportion of the women who worked on call had children, 61 percent, versus 56 percent for traditional workers. (See table 4.) Nearly 22 percent of those on call were under the age of 25, compared with 15 percent of traditional work-

ers. Youths in the on-call arrangement were somewhat more likely to be attending school than were their counterparts in traditional arrangements.

On-call workers had somewhat less education, on average, than other workers had. (See table 3.) Of those aged 25 to 64, nearly 1 in 7 had dropped out of high school, compared with 1 in 10 among traditional workers, and just about 26 percent of on-call workers had a college degree, compared with nearly 30 percent for workers in traditional arrangements. Among men in the on-call category, 19 percent were high school dropouts, and only 18 percent were college graduates. Women who worked on call, on the other hand, actually were more likely to have been to college than their counterparts in traditional jobs. This sharp difference between men and women in the arrangement is echoed in other ways, as is

**Table 5. Employed persons with alternative and traditional work arrangements, by full- and part-time status, reason for part-time work, sex, and age, February 1997**

[Percent distribution]

| Characteristic                                  | Total employed | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|-------------------------------------------------|----------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                                 |                | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| <b>Total</b>                                    |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....               | 126,742        | 8,456                                 | 1,996           | 1,300                         | 809                                | 114,199                               |
| Percent .....                                   | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Full-time workers .....                         | 81.1           | 73.6                                  | 47.4            | 80.3                          | 82.8                               | 82.3                                  |
| Part-time workers .....                         | 18.9           | 26.4                                  | 52.6            | 19.7                          | 17.2                               | 17.7                                  |
| At work part time for economic reasons .....    | 3.5            | 6.3                                   | 15.2            | 9.1                           | 3.7                                | 3.0                                   |
| At work part time for noneconomic reasons ..... | 15.0           | 20.4                                  | 36.5            | 13.3                          | 12.6                               | 14.2                                  |
| <b>Men, 20 years and older</b>                  |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....               | 64,863         | 5,608                                 | 872             | 544                           | 555                                | 57,289                                |
| Percent .....                                   | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Full-time workers .....                         | 91.7           | 84.8                                  | 71.6            | 86.6                          | 92.1                               | 92.7                                  |
| Part-time workers .....                         | 8.3            | 15.2                                  | 28.4            | 13.4                          | 7.9                                | 7.3                                   |
| At work part time for economic reasons .....    | 3.1            | 7.4                                   | 19.5            | 6.1                           | 1.6                                | 2.4                                   |
| At work part time for noneconomic reasons ..... | 5.9            | 10.4                                  | 14.3            | 8.5                           | 6.3                                | 5.3                                   |
| <b>Women, 20 years and older</b>                |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....               | 55,848         | 2,783                                 | 931             | 677                           | 238                                | 51,231                                |
| Percent .....                                   | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Full-time workers .....                         | 74.8           | 52.0                                  | 32.5            | 77.5                          | 64.3                               | 76.8                                  |
| Part-time workers .....                         | 25.2           | 48.0                                  | 67.5            | 22.5                          | 35.7                               | 23.2                                  |
| At work part time for economic reasons .....    | 3.7            | 3.8                                   | 12.4            | 10.6                          | 7.1                                | 3.4                                   |
| At work part time for noneconomic reasons ..... | 20.1           | 39.6                                  | 50.2            | 15.4                          | 27.3                               | 18.5                                  |
| <b>Both sexes, 16 to 19 years</b>               |                |                                       |                 |                               |                                    |                                       |
| Employed, total (thousands) .....               | 6,031          | 66                                    | 193             | 79                            | 16                                 | 5,678                                 |
| Percent .....                                   | 100.0          | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Full-time workers .....                         | 26.4           | ( <sup>1</sup> )                      | 10.4            | 60.8                          | ( <sup>1</sup> )                   | 26.4                                  |
| Part-time workers .....                         | 73.6           | ( <sup>1</sup> )                      | 89.6            | 39.2                          | ( <sup>1</sup> )                   | 73.6                                  |
| At work part time for economic reasons .....    | 6.0            | ( <sup>1</sup> )                      | 9.3             | 16.5                          | ( <sup>1</sup> )                   | 5.6                                   |
| At work part time for noneconomic reasons ..... | 65.9           | ( <sup>1</sup> )                      | 69.9            | 29.1                          | ( <sup>1</sup> )                   | 66.4                                  |

<sup>1</sup> Percentage not shown where base is less than 75,000.

**Note:** Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding, and total employed includes day laborers, an alternative arrangement not shown separately. Part time is defined as working 1 to 34 hours per week; full time is 35 hours or more. The classification of full- and part-time

workers is based on the number of hours usually worked. The sum of the two at-work-part time categories does not equal the part-time worker estimate, because the latter includes those not at work during the reference week. Also, persons at work part time for an economic reason can work either full or part time on a usual basis; persons at work part time for a noneconomic reason are limited to those who usually work part time.

**Table 6. Employed persons with alternative and traditional work arrangements, by occupation and sex, February 1997**

[Percent distribution]

| Occupation and sex                               | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|--------------------------------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                                  | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Total, 16 years and older (thousands) .....      | 8,456                                 | 1,996           | 1,300                         | 809                                | 114,199                               |
| Percent .....                                    | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Executive, administrative, and managerial .....  | 20.7                                  | 2.7             | 6.9                           | 8.0                                | 14.1                                  |
| Professional specialty .....                     | 17.9                                  | 21.2            | 6.6                           | 19.8                               | 15.3                                  |
| Technicians and related support .....            | .8                                    | 4.1             | 5.8                           | 7.2                                | 3.4                                   |
| Sales occupations .....                          | 17.9                                  | 6.7             | 1.7                           | 2.8                                | 11.7                                  |
| Administrative support, including clerical ..... | 3.9                                   | 8.6             | 34.1                          | 5.2                                | 15.3                                  |
| Service occupations .....                        | 9.1                                   | 20.4            | 9.1                           | 27.7                               | 13.5                                  |
| Precision production, craft, and repair .....    | 17.9                                  | 14.7            | 5.1                           | 19.8                               | 10.3                                  |
| Operators, fabricators, and laborers .....       | 6.8                                   | 18.8            | 29.1                          | 9.3                                | 14.3                                  |
| Farming, forestry, and fishing .....             | 5.1                                   | 2.8             | 1.6                           | .2                                 | 2.2                                   |
| Men, 16 years and older (thousands) .....        | 5,633                                 | 979             | 581                           | 565                                | 60,180                                |
| Percent .....                                    | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Executive, administrative, and managerial .....  | 23.1                                  | 3.2             | 4.6                           | 8.1                                | 14.4                                  |
| Professional specialty .....                     | 15.6                                  | 9.7             | 9.5                           | 17.9                               | 13.4                                  |
| Technicians and related support .....            | .8                                    | 3.4             | 8.1                           | 6.9                                | 3.2                                   |
| Sales occupations .....                          | 16.1                                  | 2.8             | 1.5                           | 2.7                                | 10.8                                  |
| Administrative support, including clerical ..... | 1.0                                   | 4.0             | 13.9                          | 3.5                                | 6.3                                   |
| Service occupations .....                        | 2.4                                   | 11.7            | 7.9                           | 23.5                               | 10.5                                  |
| Precision production, craft, and repair .....    | 25.6                                  | 29.1            | 10.3                          | 26.5                               | 17.8                                  |
| Operators, fabricators, and laborers .....       | 8.8                                   | 31.7            | 41.1                          | 10.4                               | 20.4                                  |
| Farming, forestry, and fishing .....             | 6.7                                   | 4.5             | 2.9                           | .4                                 | 3.3                                   |
| Women, 16 years and older (thousands) .....      | 2,824                                 | 1,017           | 719                           | 244                                | 54,019                                |
| Percent .....                                    | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Executive, administrative, and managerial .....  | 15.9                                  | 2.3             | 8.8                           | 7.8                                | 13.8                                  |
| Professional specialty .....                     | 22.5                                  | 32.3            | 4.3                           | 24.2                               | 17.5                                  |
| Technicians and related support .....            | .8                                    | 4.7             | 3.9                           | 7.8                                | 3.6                                   |
| Sales occupations .....                          | 21.5                                  | 10.5            | 1.7                           | 2.9                                | 12.7                                  |
| Administrative support, including clerical ..... | 9.6                                   | 13.0            | 50.3                          | 9.0                                | 25.3                                  |
| Service occupations .....                        | 22.4                                  | 28.8            | 9.9                           | 37.7                               | 16.8                                  |
| Precision production, craft, and repair .....    | 2.5                                   | .8              | 1.0                           | 4.1                                | 1.8                                   |
| Operators, fabricators, and laborers .....       | 2.8                                   | 6.5             | 19.5                          | 6.6                                | 7.6                                   |
| Farming, forestry, and fishing .....             | 1.9                                   | 1.2             | .6                            | —                                  | .9                                    |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding. Dash indicates less than 0.05 percent.

discussed below.

Few on-call workers, either men or women, were represented by a union—just 1.9 percent, compared with 15.6 percent of workers in traditional jobs.

**Part-time status and hours.** On-call workers had the shortest workweek of any alternative arrangement. At 26.7 hours, their average week was almost 12 hours less than that of workers in traditional arrangements. More than half (53 percent) of on-call workers worked part time in a typical week, compared with only 18 percent of traditional workers. The incidence of part-time work for adult women who were on call (about 68 percent) was much higher than that of adult men in the arrangement (28 percent). (See table 5.)

Most on-call employees who worked part time had a

preference for their shorter week, but a substantial minority did not: nearly 30 percent were part time for an economic reason and would have preferred a full-time job, compared with 18 percent of traditional workers. There were also clear distinctions by gender: only about 20 percent of the women who worked on call worked part time for an economic reason, but 58 percent of the men did so, compared with 16 percent of women and 32 percent of men in a traditional arrangement.

**Occupation.** On-call workers were found in a number of occupations and were more likely to be in professional, service, precision production, and operator, fabricator, and laborer positions than were traditional workers. (See table 6.) One in 8 on-call workers (1 in 5 of the women) was a

teacher (presumably a substitute), and 1 in 8 workers in the on-call category (1 in 4 of the men) was a carpenter, electrician, painter, or other construction craftworker. A sizable number of on-call workers were in a medical care field, including registered nurses, nursing aides, and health technicians.

There was very little overlap in the jobs done by men and women in this arrangement. The men who worked on call were likely to be construction craftworkers, motor vehicle operators (especially truckdrivers), and cleaners, helpers, and construction laborers, while the women were most often working as substitute teachers, clerical workers, food preparation workers, nurses, and retail salesclerks.

*Preference and reason.* One-half of on-call workers would

have preferred a traditional job. (See table 8.) This figure represents a decline from that registered 2 years earlier, when about 57 percent had such a preference, suggesting that more on-call workers were in the arrangement voluntarily in the more recent survey.

About equal numbers of on-call workers gave economic and personal reasons for working in the arrangement. (See table 9.) A majority of the men gave an economic reason; a majority of the women gave a personal one. The most often-cited economic reason was that the current job was the only one the individual could find. The most common personal reason was the flexibility of the schedule. Of those who gave an economic reason for working on call, nearly one-fourth were actively looking for another type of work, compared with only 5 percent of those who gave

**Table 7. Employed persons with alternative and traditional work arrangements, by industry and sex, February 1997**

[Percent distribution]

| Industry and sex                            | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|---------------------------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                             | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Total, 16 years and older (thousands) ..... | 8,456                                 | 1,996           | 1,300                         | 809                                | 114,199                               |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Agriculture .....                           | 5.7                                   | 3.4             | —                             | .3                                 | 2.1                                   |
| Mining .....                                | .2                                    | .4              | .7                            | 2.2                                | .5                                    |
| Construction .....                          | 20.7                                  | 14.5            | 2.5                           | 5.0                                | 4.9                                   |
| Manufacturing .....                         | 4.7                                   | 5.3             | 31.8                          | 20.3                               | 17.5                                  |
| Transportation and public utilities .....   | 5.1                                   | 8.7             | 6.1                           | 13.7                               | 7.1                                   |
| Wholesale and retail trade .....            | 13.6                                  | 14.4            | 8.4                           | 8.3                                | 21.1                                  |
| Finance, insurance, and real estate .....   | 8.4                                   | 1.6             | 8.5                           | 7.9                                | 6.4                                   |
| Services .....                              | 41.4                                  | 47.8            | 42.0                          | 28.2                               | 35.5                                  |
| Public administration .....                 | .2                                    | 4.0             | —                             | 14.0                               | 4.8                                   |
| Men, 16 years and older (thousands) .....   | 5,633                                 | 979             | 581                           | 565                                | 60,180                                |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Agriculture .....                           | 7.1                                   | 5.5             | —                             | .4                                 | 3.0                                   |
| Mining .....                                | .3                                    | .7              | —                             | 2.5                                | .8                                    |
| Construction .....                          | 29.4                                  | 29.1            | 3.5                           | 7.3                                | 8.4                                   |
| Manufacturing .....                         | 5.1                                   | 6.4             | 38.2                          | 22.4                               | 22.9                                  |
| Transportation and public utilities .....   | 6.4                                   | 13.6            | 9.2                           | 16.1                               | 9.6                                   |
| Wholesale and retail trade .....            | 11.9                                  | 11.7            | 11.0                          | 7.5                                | 21.1                                  |
| Finance, insurance, and real estate .....   | 8.1                                   | 1.4             | 6.8                           | 6.7                                | 4.8                                   |
| Services .....                              | 31.6                                  | 26.2            | 31.3                          | 22.6                               | 24.4                                  |
| Public administration .....                 | .1                                    | 5.3             | —                             | 14.7                               | 5.1                                   |
| Women, 16 years and older (thousands) ..... | 2,824                                 | 1,017           | 719                           | 244                                | 54,019                                |
| Percent .....                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Agriculture .....                           | 3.0                                   | 1.4             | —                             | —                                  | 1.1                                   |
| Mining .....                                | —                                     | .1              | 1.3                           | 1.7                                | .2                                    |
| Construction .....                          | 3.4                                   | .5              | 1.6                           | —                                  | 1.1                                   |
| Manufacturing .....                         | 4.1                                   | 4.2             | 26.6                          | 15.7                               | 11.5                                  |
| Transportation and public utilities .....   | 2.4                                   | 3.9             | 3.5                           | 8.5                                | 4.3                                   |
| Wholesale and retail trade .....            | 17.0                                  | 16.8            | 6.3                           | 10.2                               | 21.2                                  |
| Finance, insurance, and real estate .....   | 9.1                                   | 1.7             | 9.8                           | 10.6                               | 8.2                                   |
| Services .....                              | 60.8                                  | 68.4            | 50.9                          | 40.9                               | 47.8                                  |
| Public administration .....                 | .3                                    | 2.9             | —                             | 12.3                               | 4.5                                   |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding. For temporary help agency workers and workers provided by contract firms, the industry classification is that of the place to which they were assigned. Dash indicates less than 0.05 percent.

**Table 8. Employed persons with alternative work arrangements, by sex and preference for arrangement, February 1997**

[(Percent distribution)]

| Preference and sex                          | Independent contractors | On-call workers | Temporary help agency workers |
|---------------------------------------------|-------------------------|-----------------|-------------------------------|
| Total, 16 years and older (thousands) ..... | 8,456                   | 1,996           | 1,300                         |
| Percent .....                               | 100.0                   | 100.0           | 100.0                         |
| Prefer traditional arrangement .....        | 9.3                     | 50.1            | 59.2                          |
| Prefer alternative arrangement .....        | 83.6                    | 40.0            | 33.5                          |
| It depends .....                            | 4.6                     | 6.4             | 4.8                           |
| Not available .....                         | 2.5                     | 3.5             | 2.5                           |
| Men, 16 years and older (thousands) .....   | 5,633                   | 979             | 581                           |
| Percent .....                               | 100.0                   | 100.0           | 100.0                         |
| Prefer traditional arrangement .....        | 9.4                     | 52.5            | 62.4                          |
| Prefer alternative arrangement .....        | 83.9                    | 35.5            | 31.4                          |
| It depends .....                            | 4.4                     | 8.1             | 4.5                           |
| Not available .....                         | 2.2                     | 3.9             | 1.7                           |
| Women, 16 years and older (thousands) ..... | 2,824                   | 1,017           | 719                           |
| Percent .....                               | 100.0                   | 100.0           | 100.0                         |
| Prefer traditional arrangement .....        | 9.0                     | 47.7            | 56.7                          |
| Prefer alternative arrangement .....        | 83.0                    | 44.3            | 35.1                          |
| It depends .....                            | 5.0                     | 4.8             | 5.0                           |
| Not available .....                         | 2.9                     | 3.1             | 3.2                           |

NOTE: Details may not sum to totals because of rounding. Information on preferred arrangement was not collected for workers employed by contract companies.

a personal reason.

**Tenure and contingency.** On-call workers had been in the arrangement an average of 2.1 years. (See table 11.) Full-time workers had been in the arrangement twice as long as part-time workers (2.9 years versus 1.4 years).

About 27 percent of on-call workers were contingent under the broadest measure (estimate 3 in table 10); that is, they believed that their current assignment could not continue for as long as they wished it to. Among workers in traditional arrangements, less than 4 percent were contingent. Two years ago, the proportion of on-call workers who were contingent was considerably higher—about 35 percent.

**Compensation.** On-call workers who worked full time (at least 35 hours per week) earned \$432 a week, or 85 percent of the median for traditional workers. (See table 12.) There was a particularly large gender gap for workers in this arrangement: among full-time workers, women earned just 56 percent of what men earned. By contrast, the earnings of women who worked in traditional jobs were 78 percent of those of men in the same category.

Two-thirds of on-call workers had health insurance, and 20 percent received it through their current employer (compared with 83 percent and 61 percent, respectively, for traditional workers). (See table 14.) Women who worked on call were more likely to have coverage from

any source, but men were more likely to have it from their employer. Many of the women were covered through another family member. Only 31 percent of on-call workers reported that they were eligible for health insurance coverage from their employer, less than half the proportion for traditional workers (73 percent).

About one-fourth of on-call workers were eligible for an employer-provided pension, and 19 percent were actually included in such a plan. These proportions were considerably lower than those for traditional workers (57 percent and 50 percent, respectively). Men in the on-call arrangement were somewhat more likely than the women to have a pension, as well as to be eligible for one through their employer.

In sum, employment in the on-call arrangement was essentially flat between 1995 and 1997, and large differences by gender remained. There was some evidence that workers were more likely to prefer the arrangement to a traditional job and were less likely to be contingent in February 1997 compared with 2 years earlier.

### Temporary help agency workers

The February supplements have collected information on two types of employment arrangements in which workers are employed by one company while performing work for another. The larger of the two is temporary help agencies, which place (as well as screen, evaluate, and sometimes train) work-

ers with client organizations, often (but not necessarily) on a short-term basis.<sup>5</sup> Workers in this arrangement indicated that they were paid by a temporary help agency, whether or not their employment was temporary. (Thus, the category likely includes the permanent staffs of the agencies, a relatively small number.)

In February 1997, 1.3 million people were employees of temporary help agencies, accounting for 1 percent of all workers.<sup>6</sup> The number of workers in this arrangement increased by 10 percent from February 1995, considerably faster than the growth in traditional employment (2.8 percent). As with the other alternative arrangements, most characteristics of these workers changed little between the survey dates, although there is some evidence of an increase in the number who preferred the arrangement to a traditional job and a decline in the number who were contingent.

*Characteristics.* Confirming the results of the 1995 survey, workers employed by temporary help agencies in February 1997 were more likely than other workers to be young, female, black, or Hispanic. (See table 2.) Nearly one-fourth of temps were under the age of 25, compared with 15 percent of traditional workers. Relatively few of the young workers in this arrangement were going to school; just 16 percent were attending high school or college, compared with 43 percent of young people working in a traditional job. About 55 percent of temps were women, compared with 47 percent of traditional workers. Nearly one-half of the women who temped were raising children; this was a smaller proportion than that for traditional workers, who tend to be older. (See table 4.)

The proportion of temps who were black (21 percent) was nearly double that for other workers, and the share that was Hispanic also exceeded the proportion of Hispanics in the

**Table 9. Employed persons with alternative work arrangements, by sex and reason for arrangement, February 1997**

[Percent distribution]

| Reason and sex                               | Independent contractors | On-call workers | Temporary help agency workers |
|----------------------------------------------|-------------------------|-----------------|-------------------------------|
| Total (in thousands) .....                   | 8,456                   | 1,996           | 1,300                         |
| Percent .....                                | 100.0                   | 100.0           | 100.0                         |
| Economic reason .....                        | 9.4                     | 40.7            | 59.6                          |
| Only type of work I could find .....         | 2.7                     | 27.1            | 34.6                          |
| Hope job leads to permanent employment ..... | .7                      | 5.3             | 17.7                          |
| Other economic reason .....                  | 6.0                     | 8.3             | 7.2                           |
| Personal reason .....                        | 76.0                    | 39.4            | 29.3                          |
| Flexibility of schedule .....                | 23.6                    | 22.4            | 16.1                          |
| Family or personal obligations .....         | 3.9                     | 6.0             | 2.4                           |
| In school or training .....                  | .6                      | 6.4             | 4.5                           |
| Other personal reason .....                  | 48.0                    | 4.6             | 6.4                           |
| Reason not available .....                   | 14.6                    | 19.9            | 11.1                          |
| Men (in thousands) .....                     | 5,633                   | 979             | 581                           |
| Percent .....                                | 100.0                   | 100.0           | 100.0                         |
| Economic reason .....                        | 10.2                    | 50.1            | 65.2                          |
| Only type of work I could find .....         | 2.7                     | 33.1            | 41.0                          |
| Hope job leads to permanent employment ..... | .6                      | 5.0             | 15.7                          |
| Other economic reason .....                  | 6.9                     | 12.0            | 8.4                           |
| Personal reason .....                        | 74.7                    | 27.6            | 22.2                          |
| Flexibility of schedule .....                | 18.0                    | 15.9            | 10.7                          |
| Family or personal obligations .....         | 1.4                     | 1.6             | .9                            |
| In school or training .....                  | .4                      | 5.1             | 4.3                           |
| Other personal reason .....                  | 55.1                    | 4.9             | 6.4                           |
| Reason not available .....                   | 15.1                    | 22.4            | 12.7                          |
| Women (in thousands) .....                   | 2,824                   | 1,017           | 719                           |
| Percent .....                                | 100.0                   | 100.0           | 100.0                         |
| Economic reason .....                        | 7.8                     | 31.7            | 55.0                          |
| Only type of work I could find .....         | 2.8                     | 21.2            | 29.4                          |
| Hope job leads to permanent employment ..... | .8                      | 5.6             | 19.3                          |
| Other economic reason .....                  | 4.1                     | 4.8             | 6.3                           |
| Personal reason .....                        | 78.5                    | 50.7            | 35.1                          |
| Flexibility of schedule .....                | 34.6                    | 28.5            | 20.4                          |
| Family or personal obligations .....         | 9.1                     | 10.1            | 3.6                           |
| In school or training .....                  | 1.0                     | 7.6             | 4.7                           |
| Other personal reason .....                  | 33.8                    | 4.4             | 6.4                           |
| Reason not available .....                   | 13.7                    | 17.7            | 9.9                           |

NOTE: Details may not sum to totals because of rounding. Information on reason for alternative arrangement was not collected for workers employed by contract companies.

**Table 10.** Employed persons with alternative and traditional work arrangements, by sex and contingent and noncontingent employment, February 1997

| Arrangement and sex                      | Total<br>(thousands) | Percent distribution            |               |               |                          |
|------------------------------------------|----------------------|---------------------------------|---------------|---------------|--------------------------|
|                                          |                      | Contingent workers <sup>1</sup> |               |               | Noncontingent<br>workers |
|                                          |                      | Estimate<br>1                   | Estimate<br>2 | Estimate<br>3 |                          |
| <b>Total</b>                             |                      |                                 |               |               |                          |
| With alternative arrangements:           |                      |                                 |               |               |                          |
| Independent contractors .....            | 8,456                | ( <sup>2</sup> )                | 3.5           | 3.5           | 96.5                     |
| On-call workers .....                    | 1,996                | 13.9                            | 14.2          | 26.7          | 73.3                     |
| Temporary help agency workers .....      | 1,300                | 27.7                            | 42.5          | 56.8          | 43.2                     |
| Workers provided by contract firms ..... | 809                  | 5.3                             | 12.0          | 16.7          | 83.3                     |
| With traditional arrangements .....      | 114,199              | 1.5                             | 1.6           | 3.4           | 96.6                     |
| <b>Men</b>                               |                      |                                 |               |               |                          |
| With alternative arrangements:           |                      |                                 |               |               |                          |
| Independent contractors .....            | 5,633                | ( <sup>2</sup> )                | 2.5           | 2.5           | 97.5                     |
| On-call workers .....                    | 979                  | 17.2                            | 17.9          | 30.6          | 69.3                     |
| Temporary help agency workers .....      | 581                  | 28.7                            | 41.8          | 56.5          | 43.5                     |
| Workers provided by contract firms ..... | 565                  | 6.7                             | 12.6          | 17.0          | 83.0                     |
| With traditional arrangements .....      | 60,180               | 1.3                             | 1.4           | 3.1           | 96.9                     |
| <b>Women</b>                             |                      |                                 |               |               |                          |
| With alternative arrangements:           |                      |                                 |               |               |                          |
| Independent contractors .....            | 2,824                | ( <sup>2</sup> )                | 5.5           | 5.5           | 94.5                     |
| On-call workers .....                    | 1,017                | 10.6                            | 10.6          | 22.8          | 77.2                     |
| Temporary help agency workers .....      | 719                  | 26.8                            | 43.1          | 57.2          | 42.8                     |
| Workers provided by contract firms ..... | 244                  | 2.0                             | 10.6          | 15.9          | 84.1                     |
| With traditional arrangements .....      | 54,019               | 1.7                             | 1.8           | 3.7           | 96.3                     |

<sup>1</sup>For a definition of estimates 1, 2, and 3, see the appendix to Steven Hipple's article, pp. 34-35, this issue.

<sup>2</sup>Not applicable.

NOTE: Noncontingent workers are those who do not fall into any estimate of "contingent" workers. Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Independent contractors, as well as the self-employed, are excluded from estimate 1.

general workforce. (See table 2.) In contrast to the situation among whites and blacks, more Hispanic men than Hispanic women worked in this arrangement.

A somewhat higher proportion of temps than traditional workers aged 25 to 64 had dropped out of high school. A majority of temps had at least 1 year of college, but fewer had a college degree, compared with traditional workers (22 percent and 30 percent, respectively). (See table 3.)

**Part-time status.** Perhaps surprisingly, given the episodic nature of their work, the great majority (80 percent) of temps worked a full-time week of at least 35 hours. (See table 5.) Men in this arrangement averaged 39 hours per week on the job, and women averaged 34 hours, almost as much as traditional workers (41 and 35 hours, respectively). Of those temps who worked part time, a very large share—41 percent—would have preferred a full-time job, compared with only 18 percent of workers in traditional jobs. Male and female temps had a similar incidence of involuntary part-time work.

**Occupation and industry.** Temporary help agency employees

worked predominantly in clerical and machine operator occupations, although there were substantial differences by gender. Of the women in the arrangement, one-half held clerical jobs, 20 percent were in machine operator, fabricator, and laborer positions, and 13 percent worked as managers and professionals. Among the men, 41 percent worked as operators, fabricators, or laborers, while clerical jobs and managerial and professional jobs accounted for 14 percent apiece. (See table 6.)

Manufacturing companies and, to a lesser extent, service industry firms, were heavy users of temporary help workers, relative to their share of total employment, while retail establishments and government agencies were relatively infrequent users. Manufacturing and services combined accounted for three-fourths of the temporaries' assignments. (See table 7; data on the industries temps were assigned to were not available for about 13 percent of persons in the arrangement—hence, the preceding conclusions characterize just those who responded to the survey question about industry of assignment.)

**Preference and reason.** Just 1 in 3 temporary help agency workers preferred their arrangement to a traditional job.

Women had a slightly higher preference for the arrangement than did men; still, nearly 60 percent of all temps said that they would prefer a traditional job. (The remainder did not express a clear preference.) (See table 8.)

Even so, the February 1997 survey found a higher proportion of workers who were in the arrangement voluntarily compared with the figure 2 years earlier. Those who preferred the arrangement rose by about 7 percentage points.

When asked about the main reason they were working in the arrangement, a majority of temps provided an economic

reason, the most common being that that was the only type of work they could find. The second most common economic reason was the hope that the assignment with the temporary agency would lead to permanent employment. The most often-cited personal reason was the flexibility of the schedule. Percentagewise, more men than women gave an economic reason for working in this arrangement; even so, more than one-half of all female temps gave an economic reason. (See table 9.) One-third of temps who said they would prefer a traditional job were actively looking for one.

**Table 11. Employed persons with alternative and traditional work arrangements, by tenure in the arrangement and sex, February 1997**

[Percent distribution]

| Tenure and sex                        | Workers with alternative arrangements |                 |                               |                                    | Workers with traditional arrangements |
|---------------------------------------|---------------------------------------|-----------------|-------------------------------|------------------------------------|---------------------------------------|
|                                       | Independent contractors               | On-call workers | Temporary help agency workers | Workers provided by contract firms |                                       |
| Total, 16 years and older (thousands) | 8,456                                 | 1,996           | 1,300                         | 809                                | 114,199                               |
| Percent                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Total reporting specific tenure       | 97.6                                  | 96.2            | 95.4                          | 97.4                               | 96.1                                  |
| 1 year or less                        | 14.5                                  | 44.8            | 71.0                          | 40.5                               | 24.7                                  |
| Less than 6 months                    | 5.4                                   | 25.3            | 42.6                          | 19.2                               | 10.2                                  |
| 6 to 12 months                        | 9.1                                   | 19.5            | 28.3                          | 21.4                               | 14.5                                  |
| More than 1 year                      | 83.2                                  | 51.4            | 24.5                          | 56.9                               | 71.4                                  |
| Less than 4 years                     | 15.8                                  | 21.5            | 15.9                          | 27.2                               | 19.0                                  |
| 4 to 9 years                          | 25.4                                  | 17.3            | 7.0                           | 18.7                               | 24.3                                  |
| 10 to 19 years                        | 24.2                                  | 9.2             | 1.6                           | 9.4                                | 17.9                                  |
| 20 years or more                      | 17.8                                  | 3.4             | —                             | 1.6                                | 10.2                                  |
| Specific tenure not available         | 2.4                                   | 3.8             | 4.6                           | 2.6                                | 3.9                                   |
| Median tenure (in years)              | 7.7                                   | 2.1             | .5                            | 2.1                                | 4.8                                   |
| Men, 16 years and older (thousands)   | 5,633                                 | 979             | 581                           | 565                                | 60,180                                |
| Percent                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Total reporting specific tenure       | 97.6                                  | 95.7            | 94.5                          | 97.0                               | 95.8                                  |
| 1 year or less                        | 11.9                                  | 41.3            | 67.7                          | 40.2                               | 23.3                                  |
| Less than 6 months                    | 3.9                                   | 20.6            | 42.8                          | 19.5                               | 9.8                                   |
| 6 to 12 months                        | 8.0                                   | 20.7            | 24.9                          | 20.7                               | 13.5                                  |
| More than 1 year                      | 85.7                                  | 54.4            | 27.0                          | 56.8                               | 72.5                                  |
| Less than 4 years                     | 14.3                                  | 20.0            | 19.1                          | 25.8                               | 18.2                                  |
| 4 to 9 years                          | 24.4                                  | 16.3            | 7.2                           | 19.6                               | 23.6                                  |
| 10 to 19 years                        | 25.0                                  | 12.2            | .7                            | 9.0                                | 18.2                                  |
| 20 years or more                      | 21.9                                  | 5.9             | —                             | 2.3                                | 12.5                                  |
| Specific tenure not available         | 2.4                                   | 4.2             | 5.3                           | 3.0                                | 4.2                                   |
| Median tenure (in years)              | 9.2                                   | 2.4             | .5                            | 2.0                                | 5.2                                   |
| Women, 16 years and older (thousands) | 2,824                                 | 1,017           | 719                           | 244                                | 54,019                                |
| Percent                               | 100.0                                 | 100.0           | 100.0                         | 100.0                              | 100.0                                 |
| Total reporting specific tenure       | 97.7                                  | 96.7            | 96.0                          | 98.4                               | 96.5                                  |
| 1 year or less                        | 19.7                                  | 48.3            | 73.6                          | 41.2                               | 26.3                                  |
| Less than 6 months                    | 8.3                                   | 29.9            | 42.3                          | 18.5                               | 10.7                                  |
| 6 to 12 months                        | 11.3                                  | 18.4            | 31.3                          | 22.6                               | 15.6                                  |
| More than 1 year                      | 78.1                                  | 48.4            | 22.4                          | 57.2                               | 70.2                                  |
| Less than 4 years                     | 18.8                                  | 22.9            | 13.2                          | 30.5                               | 19.9                                  |
| 4 to 9 years                          | 27.2                                  | 18.2            | 7.0                           | 16.5                               | 25.1                                  |
| 10 to 19 years                        | 22.6                                  | 6.3             | 2.1                           | 10.3                               | 17.6                                  |
| 20 years or more                      | 9.6                                   | 1.0             | —                             | —                                  | 7.6                                   |
| Specific tenure not available         | 2.3                                   | 3.4             | 4.0                           | 1.6                                | 3.5                                   |
| Median tenure (in years)              | 5.6                                   | 1.8             | .5                            | 2.2                                | 4.4                                   |

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangements" categories. Details may not sum to totals due to rounding. For workers with traditional arrangements, estimates reflect tenure with the current employer. Median tenure was calculated only for those who reported a specific tenure. Dash indicates less than 0.05 percent.

**Table 12.** Median weekly earnings of full-time workers with alternative and traditional work arrangements, by selected characteristics, February 1997

| Characteristic                         | Independent contractors | On-call workers  | Temporary help agency workers | Workers provided by contract firms | Workers with traditional arrangements |
|----------------------------------------|-------------------------|------------------|-------------------------------|------------------------------------|---------------------------------------|
| <b>Age and sex</b>                     |                         |                  |                               |                                    |                                       |
| Total, 16 years and older .....        | \$587                   | \$432            | \$329                         | \$619                              | \$510                                 |
| 16 to 19 years .....                   | ( <sup>1</sup> )        | 243              | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 237                                   |
| 20 to 24 years .....                   | 478                     | 328              | 286                           | ( <sup>1</sup> )                   | 328                                   |
| 25 years and older .....               | 590                     | 457              | 364                           | 681                                | 550                                   |
| 25 to 34 years .....                   | 481                     | 440              | 373                           | 679                                | 486                                   |
| 35 to 44 years .....                   | 588                     | 501              | 343                           | 686                                | 579                                   |
| 45 to 54 years .....                   | 670                     | 408              | 351                           | 734                                | 613                                   |
| 55 to 64 years .....                   | 590                     | 456              | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 575                                   |
| 65 years and older .....               | 500                     | 231              | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 458                                   |
| Men, 16 years and older .....          | 621                     | 508              | 385                           | 685                                | 578                                   |
| 16 to 19 years .....                   | ( <sup>1</sup> )        | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 252                                   |
| 20 to 24 years .....                   | 523                     | 328              | 312                           | ( <sup>1</sup> )                   | 343                                   |
| 25 years and older .....               | 624                     | 524              | 406                           | 727                                | 613                                   |
| 25 to 34 years .....                   | 513                     | 576              | 403                           | 783                                | 523                                   |
| 35 to 44 years .....                   | 618                     | 521              | 405                           | 702                                | 630                                   |
| 45 to 54 years .....                   | 739                     | 636              | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 717                                   |
| 55 to 64 years .....                   | 622                     | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 679                                   |
| 65 years and older .....               | 731                     | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 669                                   |
| Women, 16 years and older .....        | 409                     | 286              | 305                           | 439                                | 450                                   |
| 16 to 19 years .....                   | ( <sup>1</sup> )        | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 217                                   |
| 20 to 24 years .....                   | ( <sup>1</sup> )        | ( <sup>1</sup> ) | 252                           | ( <sup>1</sup> )                   | 309                                   |
| 25 years and older .....               | 414                     | 287              | 323                           | 439                                | 479                                   |
| 25 to 34 years .....                   | 378                     | 253              | 323                           | 396                                | 425                                   |
| 35 to 44 years .....                   | 434                     | 450              | 308                           | ( <sup>1</sup> )                   | 506                                   |
| 45 to 54 years .....                   | 508                     | 234              | 338                           | ( <sup>1</sup> )                   | 515                                   |
| 55 to 64 years .....                   | 397                     | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 440                                   |
| 65 years and older .....               | 298                     | ( <sup>1</sup> ) | ( <sup>1</sup> )              | ( <sup>1</sup> )                   | 361                                   |
| <b>Race and Hispanic origin</b>        |                         |                  |                               |                                    |                                       |
| White .....                            | 603                     | 455              | 324                           | 675                                | 524                                   |
| Black .....                            | 399                     | 378              | 332                           | 394                                | 428                                   |
| Hispanic origin .....                  | 438                     | 321              | 281                           | ( <sup>1</sup> )                   | 357                                   |
| <b>Educational attainment</b>          |                         |                  |                               |                                    |                                       |
| Less than a high school diploma .....  | 398                     | 289              | 265                           | ( <sup>1</sup> )                   | 302                                   |
| High school graduate, no college ..... | 512                     | 423              | 310                           | 491                                | 427                                   |
| Some college, no degree .....          | 581                     | 498              | 306                           | 522                                | 494                                   |
| Associate's degree .....               | 523                     | 558              | 433                           | ( <sup>1</sup> )                   | 519                                   |
| College graduate .....                 | 752                     | 521              | 497                           | 910                                | 769                                   |

<sup>1</sup>Data not shown where base is less than 75,000.

NOTE: Workers with traditional arrangements are those who do not fall into any of the "alternative arrangement" categories.

**Tenure and contingency.** The February 1997 survey confirmed that people employed by temporary help agencies can be assigned to one client for a relatively long time. While about 35 percent of temps had been in their current assignment for less than 3 months, nearly one-quarter had been in their assignment for more than a year. The median current tenure in the assignment was about 5 months.

Tenure in the employment arrangement was somewhat higher than tenure in the assignment. About 37 percent had been in the arrangement for at least 1 year, and 23 percent had been in the arrangement for 2 or more years; the median tenure was 6 months. (See table 11.)

About 57 percent of temporary help agency workers were

contingent under table 10's estimate 3, which, for temps, is based on their attachment to the current assignment. While this contingency rate continued to be the highest of any of the alternative arrangements studied, it was down by 10 percentage points from the rate obtained in the 1995 survey.

Although their assignments typically were short lived, many temps believed that they could remain in the arrangement indefinitely. Under estimate 1, in which temporary help agency workers were counted as contingent if they believed they could not remain in the arrangement for as long as they wished, only 28 percent were contingent.

**Special characteristics.** Nearly all temps reported being

assigned to just one place in the reference week. Eighty percent were registered with just one temporary help agency. Less than 2 percent were represented by a union or an employee association.

**Compensation.** Temporary help agency workers had the lowest earnings of workers in the four alternative arrangements studied. At \$329 per week for full-time workers, their median earnings were about two-thirds of the earnings of traditional workers (\$510). (See table 12.) The low earnings of temporary help agency workers are, in part, a reflection of the fact that the clerical and machine operator jobs they typically hold pay lower-than-average wages.

Women in the arrangement earned about 79 percent of what men earned, a gender gap comparable to that of other workers. Younger temps and those with less schooling generally had earnings closer to those of their counterparts in traditional arrangements, while older and college-educated workers who temped experienced a more substantial earnings deficit. The earnings of black and white temps were about the same, unlike the situation of traditional workers.

Temporary agencies did not commonly provide health insurance and pension benefits to their workers. (See table 14.) In fact, the rates of coverage for these workers were the lowest of the arrangements studied. For instance, 26 percent of temporary help agency workers were eligible for their

employer's health insurance coverage, compared with nearly 75 percent of traditional workers, and only 7 percent of temps obtained health insurance through their employer, compared with 61 percent of traditional workers. Just 46 percent of temps had health insurance from any source, compared with 83 percent of traditional workers. Women were more likely than men to have coverage at all, often through a family member.

Pension coverage was even lower than health insurance coverage: about 1 temp in 10 was eligible for his or her employer's pension plan, and about 4 percent of all temps actually participated in such a plan. For traditional workers, the proportions were 57 and 50 percent, respectively.

In sum, most temporary help agency workers were employed as clerical workers and machine operators. Most temps worked full time, and one-quarter had been on their current assignment for more than a year. Pay and benefits were at relatively low levels. Still, one-third of temps preferred their arrangement to a traditional job, and there was evidence that this proportion rose between 1995 and 1997 and that the proportion who were contingent fell.

## Contract company workers

The smallest of the four alternative arrangements was contract company employment, with about 800,000 workers. These individuals worked for a company that provides employees or

**Table 13. Percent of independent contractors with health insurance and pension coverage, by selected characteristics, February 1997**

| Characteristic                  | Number<br>(thousands) | With health insurance coverage |                                               |                                                |                     |                  | With pension coverage |                 |
|---------------------------------|-----------------------|--------------------------------|-----------------------------------------------|------------------------------------------------|---------------------|------------------|-----------------------|-----------------|
|                                 |                       | Total<br>(percent)             | Through<br>current<br>employer<br>at main job | Through<br>spouse or<br>other family<br>member | Purchased<br>on own | Other<br>sources | Total<br>(percent)    | IRA or<br>Keogh |
| Age and sex                     |                       |                                |                                               |                                                |                     |                  |                       |                 |
| Total, 16 years and older ..... | 8,456                 | 72.7                           | 2.5                                           | 25.5                                           | 32.3                | 11.5             | 37.4                  | 35.1            |
| 16 to 24 years .....            | 272                   | 55.9                           | 5.9                                           | 29.8                                           | 10.7                | 7.7              | 6.6                   | 4.0             |
| 25 years and older .....        | 8,185                 | 73.2                           | 2.4                                           | 25.3                                           | 33.0                | 11.6             | 38.4                  | 36.2            |
| 25 to 34 years .....            | 1,549                 | 64.7                           | 1.8                                           | 26.1                                           | 28.5                | 7.1              | 18.9                  | 17.2            |
| 35 to 44 years .....            | 2,631                 | 70.9                           | 3.1                                           | 30.7                                           | 31.2                | 5.4              | 37.8                  | 34.6            |
| 45 to 54 years .....            | 2,237                 | 74.0                           | 2.2                                           | 25.4                                           | 36.6                | 9.3              | 43.6                  | 41.8            |
| 55 years and older .....        | 1,768                 | 83.1                           | 2.1                                           | 16.6                                           | 35.0                | 27.9             | 50.0                  | 47.9            |
| Men .....                       | 5,633                 | 70.6                           | 2.6                                           | 19.0                                           | 36.1                | 12.4             | 38.1                  | 35.9            |
| Women .....                     | 2,824                 | 76.8                           | 2.5                                           | 38.3                                           | 24.7                | 9.8              | 36.0                  | 33.6            |
| Race and Hispanic origin        |                       |                                |                                               |                                                |                     |                  |                       |                 |
| White .....                     | 7,667                 | 74.1                           | 2.5                                           | 25.9                                           | 33.0                | 11.8             | 39.1                  | 36.8            |
| Black .....                     | 448                   | 52.2                           | 3.8                                           | 20.5                                           | 19.6                | 8.3              | 15.2                  | 12.5            |
| Hispanic origin .....           | 614                   | 45.4                           | 2.8                                           | 14.3                                           | 19.1                | 8.1              | 13.2                  | 11.6            |
| Full- and part-time status      |                       |                                |                                               |                                                |                     |                  |                       |                 |
| Full-time workers .....         | 5,980                 | 72.0                           | 2.9                                           | 21.7                                           | 37.9                | 8.8              | 38.9                  | 36.4            |
| Part-time workers .....         | 2,378                 | 74.2                           | 1.6                                           | 35.2                                           | 17.8                | 18.6             | 33.4                  | 31.5            |

NOTE: Details for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups. Details for full- and part-time workers will not sum to totals because the usual status

on the principal job is not identifiable for a small number of multiple jobholders. Details for sources of health insurance coverage will not sum to totals because information on a specific source was not always available.

**Table 14.** Percent of persons in alternative and traditional work arrangements with health insurance and pension coverage, by selected characteristics, February 1997

| Characteristic                     | Number<br>(thousands) | With health insurance coverage |                                               |                                  | Eligible for<br>employer-<br>provided<br>health<br>insurance | With pension<br>coverage,<br>total<br>(percent) | Eligible for<br>employer-<br>provided<br>pension |
|------------------------------------|-----------------------|--------------------------------|-----------------------------------------------|----------------------------------|--------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
|                                    |                       | Total<br>(percent)             | Through<br>current<br>employer<br>at main job | Through<br>other job<br>or union |                                                              |                                                 |                                                  |
| On-call workers                    |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Age and sex:                       |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Total, 16 years and older .....    | 1,996                 | 67.3                           | 19.6                                          | 4.4                              | 31.0                                                         | 19.2                                            | 24.5                                             |
| 16 to 24 years .....               | 430                   | 70.7                           | 11.4                                          | 1.4                              | 19.1                                                         | 4.9                                             | 7.2                                              |
| 25 years and older .....           | 1,567                 | 66.4                           | 21.8                                          | 5.2                              | 34.2                                                         | 23.2                                            | 29.3                                             |
| 25 to 34 years .....               | 448                   | 58.3                           | 23.7                                          | 4.5                              | 38.6                                                         | 19.9                                            | 28.6                                             |
| 35 to 44 years .....               | 508                   | 64.8                           | 23.8                                          | 4.7                              | 38.2                                                         | 26.8                                            | 32.1                                             |
| 45 to 54 years .....               | 288                   | 68.4                           | 21.9                                          | 5.2                              | 32.3                                                         | 22.6                                            | 26.7                                             |
| 55 years and older .....           | 322                   | 78.9                           | 16.1                                          | 7.5                              | 23.6                                                         | 22.7                                            | 28.3                                             |
| Men .....                          | 979                   | 60.3                           | 29.3                                          | 8.0                              | 38.2                                                         | 23.1                                            | 28.3                                             |
| Women .....                        | 1,017                 | 74.1                           | 10.2                                          | 1.0                              | 24.0                                                         | 15.5                                            | 20.8                                             |
| Race and Hispanic origin:          |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| White .....                        | 1,783                 | 68.1                           | 19.4                                          | 4.8                              | 30.7                                                         | 19.5                                            | 24.7                                             |
| Black .....                        | 156                   | 61.5                           | 20.5                                          | 1.3                              | 28.8                                                         | 19.9                                            | 21.2                                             |
| Hispanic origin .....              | 265                   | 37.7                           | 17.7                                          | 3.0                              | 26.0                                                         | 8.7                                             | 14.3                                             |
| Full- and part-time status:        |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Full-time workers .....            | 896                   | 62.5                           | 34.6                                          | 7.9                              | 48.2                                                         | 30.2                                            | 37.6                                             |
| Part-time workers .....            | 1,079                 | 70.9                           | 7.5                                           | 1.4                              | 17.2                                                         | 10.5                                            | 13.8                                             |
| Temporary help agency workers      |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Age and sex:                       |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Total, 16 years and older .....    | 1,300                 | 46.4                           | 7.0                                           | 1.9                              | 26.0                                                         | 3.7                                             | 10.5                                             |
| 16 to 24 years .....               | 293                   | 39.6                           | 4.4                                           | 1.7                              | 19.8                                                         | 2.0                                             | 6.8                                              |
| 25 years and older .....           | 1,007                 | 48.5                           | 7.7                                           | 1.9                              | 27.9                                                         | 4.2                                             | 11.5                                             |
| 25 to 34 years .....               | 394                   | 35.5                           | 6.6                                           | .5                               | 27.2                                                         | 3.3                                             | 9.6                                              |
| 35 to 44 years .....               | 279                   | 47.0                           | 9.0                                           | 1.1                              | 32.3                                                         | 4.3                                             | 10.4                                             |
| 45 to 54 years .....               | 211                   | 54.0                           | 10.9                                          | 3.3                              | 28.9                                                         | 5.2                                             | 18.5                                             |
| 55 years and older .....           | 124                   | 83.1                           | 3.2                                           | 5.6                              | 18.5                                                         | 3.2                                             | 8.9                                              |
| Men .....                          | 581                   | 37.9                           | 8.1                                           | 2.2                              | 27.9                                                         | 3.4                                             | 11.2                                             |
| Women .....                        | 719                   | 53.3                           | 6.1                                           | 1.7                              | 24.5                                                         | 3.8                                             | 9.9                                              |
| Race and Hispanic origin:          |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| White .....                        | 976                   | 49.8                           | 7.9                                           | 1.4                              | 27.7                                                         | 4.9                                             | 12.0                                             |
| Black .....                        | 277                   | 32.1                           | 4.0                                           | 1.8                              | 13.0                                                         | (1)                                             | 2.9                                              |
| Hispanic origin .....              | 160                   | 28.1                           | 3.8                                           | (1)                              | 26.9                                                         | 1.9                                             | 9.4                                              |
| Full- and part-time status:        |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Full-time workers .....            | 1,023                 | 42.2                           | 8.6                                           | 1.3                              | 29.9                                                         | 4.7                                             | 11.8                                             |
| Part-time workers .....            | 275                   | 61.5                           | .7                                            | 4.0                              | 10.9                                                         | (1)                                             | 4.7                                              |
| Workers provided by contract firms |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Age and sex:                       |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Total, 16 years and older .....    | 809                   | 81.7                           | 50.2                                          | 3.3                              | 68.7                                                         | 35.6                                            | 45.9                                             |
| 16 to 24 years .....               | 82                    | 74.4                           | 43.9                                          | (1)                              | 57.3                                                         | 28.0                                            | 43.9                                             |
| 25 years and older .....           | 728                   | 82.4                           | 50.8                                          | 3.7                              | 70.1                                                         | 36.4                                            | 46.0                                             |
| 25 to 34 years .....               | 277                   | 85.9                           | 59.2                                          | 3.2                              | 73.3                                                         | 34.3                                            | 43.7                                             |
| 35 to 44 years .....               | 252                   | 75.0                           | 46.8                                          | 3.2                              | 69.0                                                         | 35.3                                            | 46.4                                             |
| 45 to 54 years .....               | 115                   | 87.0                           | 55.7                                          | 6.1                              | 71.3                                                         | 43.5                                            | 51.3                                             |
| 55 years and older .....           | 84                    | 86.9                           | 29.8                                          | 3.6                              | 61.9                                                         | 38.1                                            | 45.2                                             |
| Men .....                          | 565                   | 81.2                           | 57.0                                          | 4.2                              | 72.0                                                         | 42.7                                            | 52.0                                             |
| Women .....                        | 244                   | 83.2                           | 34.8                                          | 1.2                              | 61.1                                                         | 19.3                                            | 32.0                                             |
| Race and Hispanic origin:          |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| White .....                        | 660                   | 82.7                           | 49.1                                          | 4.1                              | 67.1                                                         | 36.5                                            | 47.6                                             |
| Black .....                        | 104                   | 69.2                           | 42.3                                          | (1)                              | 67.3                                                         | 31.7                                            | 41.3                                             |
| Hispanic origin .....              | 51                    | (2)                            | (2)                                           | (2)                              | (2)                                                          | (2)                                             | (2)                                              |
| Full- and part-time status:        |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Full-time workers .....            | 659                   | 81.8                           | 58.6                                          | 3.6                              | 75.6                                                         | 39.8                                            | 50.7                                             |
| Part-time workers .....            | 148                   | 81.1                           | 12.8                                          | 2.0                              | 37.8                                                         | 16.2                                            | 23.6                                             |

**Table 14.** Continued—Percent of persons in alternative and traditional work arrangements with health insurance and pension coverage, by selected characteristics, February 1997

| Characteristic                        | Number<br>(thousands) | With health insurance coverage |                                               |                                  | Eligible for<br>employer-<br>provided<br>health<br>insurance | With pension<br>coverage,<br>total<br>(percent) | Eligible for<br>employer-<br>provided<br>pension |
|---------------------------------------|-----------------------|--------------------------------|-----------------------------------------------|----------------------------------|--------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
|                                       |                       | Total<br>(percent)             | Through<br>current<br>employer<br>at main job | Through<br>other job<br>or union |                                                              |                                                 |                                                  |
| Workers with traditional arrangements |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Age and sex:                          |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Total, 16 years and older .....       | 107,689               | 83.0                           | 60.9                                          | .8                               | 73.4                                                         | 49.7                                            | 56.9                                             |
| 16 to 24 years .....                  | 16,716                | 67.7                           | 29.9                                          | .2                               | 44.8                                                         | 14.4                                            | 27.1                                             |
| 25 years and older .....              | 90,973                | 85.8                           | 66.6                                          | .9                               | 78.7                                                         | 56.1                                            | 62.4                                             |
| 25 to 34 years .....                  | 27,965                | 80.7                           | 63.8                                          | .6                               | 77.3                                                         | 47.6                                            | 56.9                                             |
| 35 to 44 years .....                  | 29,789                | 86.5                           | 68.0                                          | .7                               | 80.0                                                         | 58.9                                            | 64.6                                             |
| 45 to 54 years .....                  | 21,596                | 89.0                           | 70.9                                          | .8                               | 82.0                                                         | 64.2                                            | 68.3                                             |
| 55 years and older .....              | 11,623                | 90.3                           | 62.0                                          | 2.0                              | 72.9                                                         | 54.5                                            | 58.7                                             |
| Men .....                             | 56,167                | 82.2                           | 66.1                                          | 1.2                              | 75.9                                                         | 51.8                                            | 58.4                                             |
| Women .....                           | 51,522                | 83.8                           | 55.2                                          | .3                               | 70.7                                                         | 47.3                                            | 55.2                                             |
| Race and Hispanic origin:             |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| White .....                           | 90,818                | 84.1                           | 60.8                                          | .8                               | 73.6                                                         | 50.0                                            | 57.1                                             |
| Black .....                           | 12,263                | 77.0                           | 62.3                                          | .6                               | 73.4                                                         | 49.8                                            | 57.6                                             |
| Hispanic origin .....                 | 10,654                | 61.8                           | 48.4                                          | .6                               | 60.4                                                         | 31.2                                            | 38.3                                             |
| Full- and part-time status:           |                       |                                |                                               |                                  |                                                              |                                                 |                                                  |
| Full-time workers .....               | 87,685                | 84.8                           | 70.7                                          | .8                               | 82.7                                                         | 57.1                                            | 64.5                                             |
| Part-time workers .....               | 19,757                | 75.0                           | 17.6                                          | .8                               | 32.5                                                         | 16.6                                            | 23.0                                             |

<sup>1</sup>Less than 0.05 percent.

<sup>2</sup>Data not shown where base is less than 75,000.

**NOTE:** Workers with traditional arrangements are those who do not fall into any of the "alternative arrangement" categories. Data exclude the incorporated self-employed. Details for the above race and Hispanic-origin

groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups. Details for full- and part-time workers will not sum to totals because the usual status on the principal job is not identifiable for a small number of multiple jobholders.

their services to other organizations under contract, and they usually worked for one customer at a time at the customer's work site. This arrangement grew by 24 percent from 1995 to 1997, much faster than the growth of traditional employment (2.8 percent). Even so, contract company workers accounted for just 0.6 percent of all workers in February 1997.<sup>7</sup>

Contract company workers differed from other workers in several respects: they were disproportionately male (70 percent), relatively few were young or old, and about two-thirds were 25 to 44 years old. Also, two-thirds of the women had at least one child, reflecting the preponderance of workers of childbearing age. (See tables 2 and 4.)

**Part-time status.** At 16 percent, the proportion of contract company employees who worked part time was essentially the same as that of traditional workers. (See table 5.) There was a large difference by gender in part-time work, as 36 percent of women who were contract company workers, but only 8 percent of men, worked part time. As with traditional workers, roughly 80 percent of the part-timers in the arrangement voluntarily worked a shorter week.

**Occupation and industry.** The occupational distribution of contract company workers was quite unlike that of traditional

workers: contract company workers were more likely to hold professional, technical, service, and precision production jobs, while comparatively few held managerial, sales, and clerical positions. Fully one-half of the men were in service and precision production positions, compared with just 28 percent of men in traditional arrangements. More than 60 percent of the women were in professional and service occupations, compared with just 34 percent of women in traditional jobs. Government agencies, manufacturing firms, and transportation and utility companies were large users of contract company workers relative to their share of total employment. (See tables 6 and 7.)

The contract company employment arrangement had the highest rate of union representation of the four alternative arrangements, but, at 5 percent, was still just a fraction of the rate among traditional jobholders (about 16 percent).

**Tenure and contingency.** Many contract company workers had been in the arrangement a relatively short time. About 40 percent had been contract company workers for 1 year or less, and only 30 percent had 4 or more years of tenure. (See table 11.)

About 17 percent of contract company workers were contingent under the broadest measure and believed that they could not remain on their current assignment indefinitely. By

contrast, the contingency rate for traditional workers was 3.4 percent. (See table 10.) It is perhaps surprising that more than 80 percent of contract company employees believed that they could remain on their current assignment indefinitely, given the relatively short tenure of many of the workers in their current assignment.

(Information on reasons for being in the arrangement and on the preferred arrangement was not collected for contract company workers, due to the difficulty of devising questions whose wording would capture the desired information for this group.)

**Compensation.** Median weekly earnings for contract company workers employed full time (\$619) were higher than earnings for workers in any other arrangement, including a traditional one (\$510). (See table 12.) There was a large gender gap in earnings among workers in the arrangement, with women earning 64 percent of men's earnings (\$439 versus \$685).

With respect to health insurance, the overall rate of coverage for employees of contract companies (82 percent) was about the same as that for workers in traditional arrangements. Almost 70 percent of contract company workers were eligible for employer-provided health insurance, and one-half received it from their employer, the highest such rates of any alternative arrangement. (See table 14.)

Nearly half of the workers in the arrangement were eligible for their employer's pension plan, and 36 percent actually participated in the plan. While these proportions were lower than those for traditional workers, they were by far the highest

among the alternative arrangements.

In sum, contract company workers are a small, but well-compensated, group in which men under the age of 45 are disproportionately represented.

A NUMBER OF OBSERVERS HAVE BEEN TEMPTED to generalize about workers in nontraditional types of employment arrangements and to conclude that their existence is evidence of shortcomings in the U.S. labor market.<sup>8</sup> The results of the two surveys on alternative arrangements that have been conducted as part of the CPS, however, suggest the dangers in trying to stereotype the jobs that workers in such arrangements hold.

Of the four alternative arrangements examined in this article, independent contracting dwarfs all the others in size and is of particular note for several other reasons as well: in general, workers in this arrangement preferred it to a traditional arrangement, viewed their jobs as permanent, tended to work full time—many putting in quite long workweeks—and, on average, were quite highly paid.

In contrast, other arrangements appear to offer less security, lower pay, or fewer hours than many workers might prefer. But, perhaps most important, each of the arrangements includes many workers who responded that they preferred the arrangement, felt secure in their jobs, and received competitive pay. Thus, it seems fair to say that there is as much diversity in the characteristics of jobs and workers *within* each type of employment arrangement, whether traditional or otherwise, as there is *between* different types of arrangements. □

## Footnotes

<sup>1</sup> Data from the February 1997 supplement to the Current Population Survey (CPS) were initially published as news release USDL 97-422, "Contingent and alternative employment arrangements, February 1997," issued Dec. 2, 1997. The CPS, conducted for the Bureau of Labor Statistics by the Bureau of the Census, is a monthly survey of some 50,000 households that is the primary source of information on the labor force. All employed persons, except unpaid family workers, were eligible for inclusion in the February supplement. The current article updates two that appeared in the October 1996 *Monthly Labor Review*: "Workers in alternative employment arrangements," by Sharon R. Cohany, pp. 31-45; and "Earnings and benefits of workers in alternative work arrangements," by Steven Hipple and Jay Stewart, pp. 46-54.

<sup>2</sup> It may be tempting to classify independent contractors who were identified as wage and salary workers in the main questionnaire as workers who otherwise would have been employees of their client company or as individuals who were "converted" to independent contractors to avoid legal requirements. However, the basic CPS questionnaire does not permit this distinction. Two individuals who are in exactly the same work arrangement may answer the question from the main questionnaire, "Were you employed by government, by a private company, a nonprofit organization, or were you self-employed?" differently, depending on their interpretation of the words "employed" and "self-employed." It was not possible with the CPS supplement to collect information on the legal aspects of employment arrangements.

<sup>3</sup> See two articles by John E. Bregger in the *Monthly Labor Review*: "Self-employment in the United States, 1948-62," January

1963, pp. 37-43; and "Measuring self-employment in the United States," January/February 1996, pp. 3-9. See also Theresa J. Devine, "Characteristics of self-employed women in the United States," *Monthly Labor Review*, March 1994, pp. 20-34.

<sup>4</sup> For a study of firms' family-oriented policies toward independent contractors (as well as toward temporary agency workers and direct-hire temporaries), see Kathleen Christensen, "Countervailing Human Resource Trends in Family-Sensitive Firms," in Kathleen Barker and Kathleen Christensen, eds., *Contingent Work: American Employment Relations in Transition* (Ithaca, NY, Cornell University Press, 1998).

<sup>5</sup> The temporary help industry has been the subject of numerous studies, including Anne E. Polivka, "Are Temporary Help Agency Workers Substitutes for Direct Hire Temps? Searching for an Alternative Explanation of Growth in the Temporary Help Industry," paper presented at the Society of Labor Economists Conference, Chicago, May 3-5, 1996; Lonnie Golden and Eileen Applebaum, "What was Driving the 1982-88 Boom in Temporary Employment?" *American Journal of Economics and Sociology*, October 1992, pp. 473-93; Karylee Laird and Nicolas Williams, "Employment Growth in the Temporary Help Supply Industry," *Journal of Economic Perspectives*, spring 1997, pp. 117-36. For a history of the temporary help industry, see Martha I. Finney and Deborah A. Dasch, *A Heritage of Service: The History of Temporary Help in America* (Alexandria, VA, National Association of Temporary Services, 1991). For views of the industry primarily from the temporary workers' perspective, see Kevin D. Henson, *Just a Temp* (Philadelphia, Temple University Press, 1996); Jackie Krasas Rogers, "Just a Temp: Experience and Structure of Alienation in Temporary

Clerical Employment," *Work and Occupations*, May 1995, pp. 137-66; and Maureen Martella, *Just a Temp: Expectations and Experiences of Women Clerical Temporary Workers*, report prepared for the U.S. Department of Labor, Women's Bureau, November 1991.

<sup>6</sup> Since 1982, data on the temporary help industry have been available from the Bureau of Labor Statistics through the Current Employment Statistics (CES) survey, which collects information on employment, hours, and earnings from employers in nonagricultural industries. Estimates of employment in the temporary help industry, as measured by the CES, are considerably higher than CPS-derived estimates, reflecting substantial differences between the two surveys. For instance, the CES category "Help supply services" (SIC 7363) includes some contract and employee-leasing companies, in addition to temporary help agencies. In the CES, multiple jobholders are counted on each payroll; in the CPS, they are counted on their main job only. Also, in the CES, individuals on multiple temporary help agency payrolls are counted on each payroll on which they appeared during the reference week. In the CPS, they are counted only once. For additional information on these differences, see Cohany, "Alternative employment arrangements," pp. 39-40; and Anne E. Polivka, "Contingent and alternative work arrangements, defined," *Monthly Labor Review*, October 1996, p. 9, footnote 12.

<sup>7</sup> Recent research on contract companies includes Katharine G. Abraham and Susan K. Taylor, "Firms' Use of Outside Contractors: Theory and Evidence," *Journal of Labor Economics*, July 1996, pp. 394-424; and two pieces by Susan N. Houseman: *Temporary, Part-time, and Contract Employment: A Report on the W. E. Upjohn Institute's Employer Survey on Flexible Staffing Arrangements* (U.S. Department of Labor, Office of the Assistant Secretary for Policy, 1996); and "Labor Standards in Alternative Work Arrangements," *Proceedings of the 50th Annual Meeting of the Industrial Relations Research Association*, vol. 2 (Chicago, Industrial Relations Research Association, 1998), pp. 1135-42.

<sup>8</sup> See, for instance, Arne L. Kalleberg, Edith Russell, Naomi Cassirer, Barbara F. Reskin, Ken Hudson, David Webster, Eileen Appelbaum, and Roberta M. Spalter-Roth, *Nonstandard Work, Substandard Jobs: Flexible Work Arrangements in the U.S.* (Washington, DC, Economic Policy Institute and Women's Research and Education Institute, 1997); and the series of articles in the Mar. 29, 1993, issue of *Time* magazine under the general title, "Society: A Nation of Part-Timers": Lance Morrow, "The Temping of America," pp. 40-41; Janice Castro, "Disposable Workers," pp. 43-44; and Robert Reich, "Nobody Is Safe," pp. 46-47.

## Part-time work and industry growth

*From 1983 to 1993, faster growing U.S. industries tended to employ more part-time workers; because no such relationship was evident before 1980, it is doubtful that industry growth and part-time work are intrinsically related*

Bruce C. Fallick

Headlines such as "Workers Feel the Tension of Trend to Part-Time Jobs" and "Many Workers Frustrated by Lack of Full-Time Jobs" reflect a common concern that a large proportion of the jobs that have been created in the United States in recent years are part-time jobs. This concern may seem misplaced, because the proportion of the U.S. workforce that is working part time has not increased appreciably since the early 1980s. However, an important part of the story is the perception that much of the hiring done by fast-growing industries, which, to many, represent the future of the U.S. economy, is for part-time positions. There is some basis for this view. The following tabulation ranks nonagricultural industry divisions, from highest to lowest, according to the growth rates of their employment shares (that is, the industry's growth rate minus the aggregate growth rate) between 1983 and 1993 and, again, by the proportion of their workforce that worked part time, on average, over the same period.<sup>2</sup>

|                                                               | <i>Proportion<br/>part time</i> |
|---------------------------------------------------------------|---------------------------------|
| Retail trade .....                                            | 40.0                            |
| Services .....                                                | 30.5                            |
| Construction .....                                            | 23.2                            |
| Finance, insurance, and real estate .....                     | 17.0                            |
| Transportation, communications, and<br>public utilities ..... | 14.0                            |
| Wholesale trade .....                                         | 13.6                            |
| Manufacturing .....                                           | 11.3                            |
| Mining .....                                                  | 10.0                            |

Apparently, industries with a greater proportion of part-time workers had a higher overall employment growth rate from 1983 to 1993.

If rapidly growing industries are the main venue for hiring, the faster growth rate of "part-time-intensive" industries does not bode well for people seeking full-time employment or for those who see their futures in those burgeoning, cutting-edge industries that seem to dominate the headlines. Moreover, previous research indicates that this penchant for part-timers largely explains why expanding industries are more likely to hire new entrants to the labor force, presumably at the expense of experienced or displaced workers, than are their slower growing counterparts.<sup>3</sup>

Accordingly, we would like to know how much stock to put in the apparent association between employment growth and the prevalence of part-time workers in an industry. Toward that end, this article asks three basic questions: (1) How robust is the correlation between alternative measures of growth and "part-time-ness"? (2) Should we ex-

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|                                                               | <i>Relative<br/>growth rate</i> |
|---------------------------------------------------------------|---------------------------------|
| Services .....                                                | 1.2                             |
| Transportation, communications,<br>and public utilities ..... | .4                              |
| Retail trade .....                                            | .4                              |
| Finance, insurance, and real estate .....                     | .4                              |
| Construction .....                                            | .0                              |
| Wholesale trade .....                                         | -1.3                            |
| Manufacturing .....                                           | -1.9                            |
| Mining .....                                                  | -5.2                            |

pect the relationship to continue? and (3) Do rapidly growing industries provide opportunities for people seeking part-time employment, or are people who prefer full-time work constrained to take part-time jobs because rapidly growing industries are where the jobs are?

## Measures

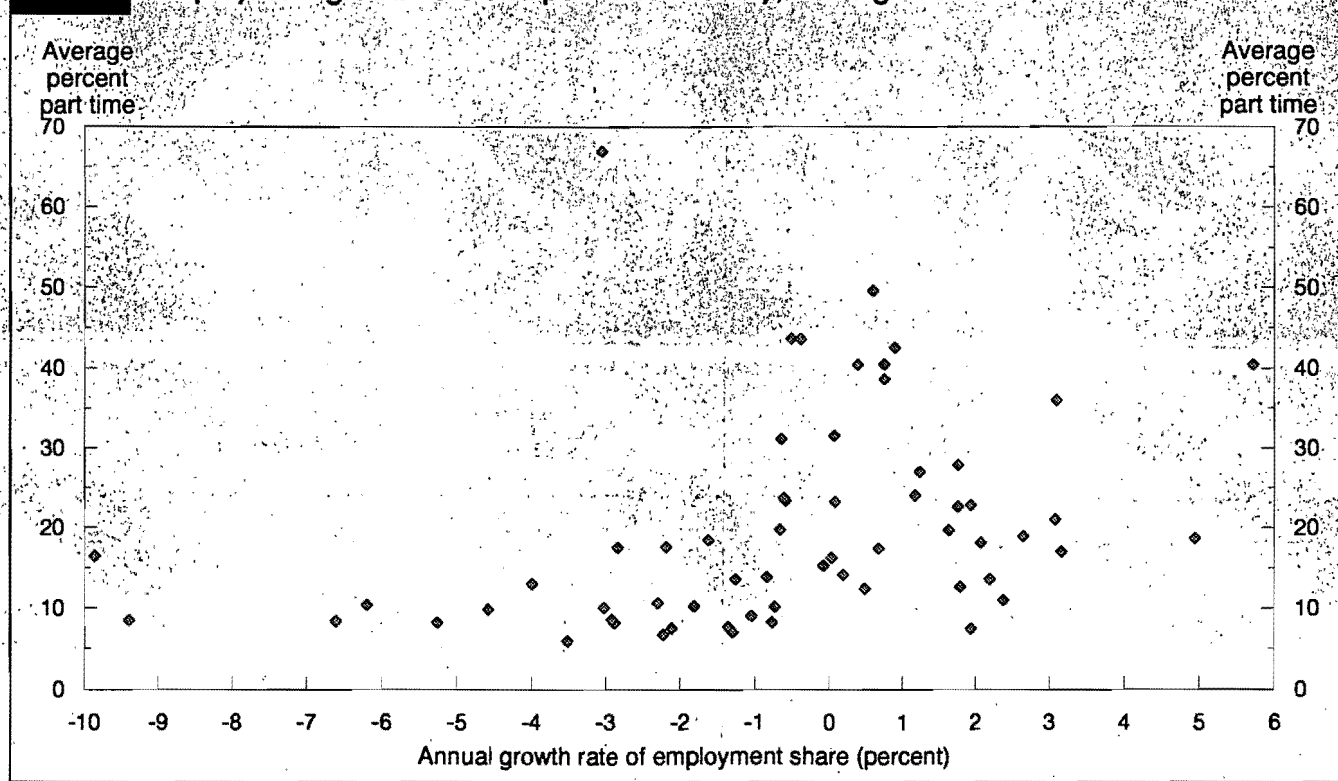
We define the relative growth rate of an industry as the rate of growth of its share of total employment, and its part-time intensity as the percentage of its workforce that works part time. In this definition, the concepts of industry employment and part-time work require some clarification. The data that follow are drawn from the regular part of the March Current Population Survey (CPS), so each observation is associated with the industry of the person's main job during the reference week.<sup>4</sup> The proportion of the labor force working part time is defined as the ratio of the number of persons who worked between 1 and 34 hours (at all jobs combined) during the reference week to the number of persons who worked at least 1 hour during the reference week.<sup>5</sup> This definition was chosen for historical comparability, but the results presented subsequently would be at least as strong if *usual weekly hours* were used to define part-time work.<sup>6</sup> Note that, while one would like a measure of full-time and part-time *jobs*, until 1994 the CPS provided only a measure of full-time and part-time *workers*. Consequently, the

CPS data cannot be used to measure the number of people who work "full time" by working at more than one part-time job.

Given the preceding definitions, chart 1 shows the association between the rate of growth of industries, defined at the two-digit level, and the incidence of part-time workers in them over the 1983–93 period.<sup>7</sup> More formally, the first two rows of table 1 present the correlation coefficients between relative employment growth rates and part-time intensity, for both the two-digit industries used in chart 1 and the industry divisions in the tabulation on page 22. The third column shows the unweighted (Pearson) correlation coefficients, the fourth column indicates the correlations, weighted by the average share of employment in the industry, and the fifth column gives the Spearman rank correlations. (Significance levels appear in parentheses.)

The positive association between employment growth and part-time intensity over the 1983–93 period is clear. However, questions arise as to whether the rate of growth of total industry employment and the percentage of an industry's workforce that is working part time are the correct measures to use. If we are concerned about the preponderance of part-time jobs being created—that is, if we believe that the opportunities available to jobseekers these days consist largely of part-time positions—then we may be more interested in the relationship between the flow of new jobs and the incidence of part-time employment. This *percentage of industry accessions who work part time*

**Chart 1. Employment growth rate and part-time intensity, two-digit industries, 1983–93**



**Table 1.** Correlation coefficients between industry growth rates and the prevalence of part-time workers, 1983-93

| Level of aggregation                                    | N  | Unweighted (Pearson) | Weighted    | Spearman rank |
|---------------------------------------------------------|----|----------------------|-------------|---------------|
| <b>Employment growth rate and part-time employment:</b> |    |                      |             |               |
| Division .....                                          | 8  | 0.61 (0.11)          | 0.71 (0.05) | 0.79 (0.02)   |
| Two-digit sic .....                                     | 61 | .32 (.01)            | .36 (.00)   | .50 (.00)     |
| <b>Accession rate and part-time accessions:</b>         |    |                      |             |               |
| Division .....                                          | 8  | .39 (.35)            | .51 (.20)   | .52 (.18)     |
| Two-digit sic .....                                     | 61 | .72 (.00)            | .42 (.00)   | .69 (.00)     |
| <b>Growth rate of hours and part-time hours:</b>        |    |                      |             |               |
| Division .....                                          | 8  | .61 (.11)            | .70 (.05)   | .88 (.00)     |
| Two-digit sic .....                                     | 61 | .31 (.01)            | .37 (.00)   | .47 (.00)     |
| <b>Earnings growth rate and part-time earnings:</b>     |    |                      |             |               |
| Division .....                                          | 8  | .67 (.06)            | .80 (.02)   | .74 (.04)     |
| Two-digit sic .....                                     | 61 | .31 (.02)            | .38 (.00)   | .50 (.00)     |

Note: Level of significance is shown in parentheses.

tells us more about the prospects for jobseekers from outside of the industry. Similarly, if the heavy use of part-time workers is an intrinsic feature of industry growth, rather than a feature of the industry itself, then we may be more interested in the degree to which that growth is manifested in part-time labor.<sup>8</sup>

Let us classify an individual counted in the March CPS as an accession into an industry if the individual is employed in that industry according to the regular part of the survey and was not employed in that industry in the previous year, according to the March supplement, either because the person was not employed at all in the previous year or because he or she was employed in a different industry (on the main job) in the previous year.<sup>9</sup> The second two rows of table 1 replicate the first two, but replace the fraction of an industry's employees that works part time with the fraction of accessions into the industry that works part time, and also replace the industry growth rates with industry accession rates, defined as the number of accessions into the industry in a year, divided by total employment in the industry in that year. The correlation between industry growth and part-time intensity is stronger, at the two-digit level of aggregation, when only accessions, rather than the total workforce, are considered.

For similar reasons, one may be interested in whether entry-level jobs in faster growing industries tend to be more heavily part time. That is, one may want to know whether people beginning their careers in one of the faster growing industries are faced with a greater chance of working part-time, compared with beginning in industries that exhibit slower job growth. Given the information that is avail-

able, a reasonable way to address this question is to examine the correlations by age group. As it happens, the correlations are quite similar across age groups. (Results are not shown, but may be obtained upon request.) Thus, the association between industry growth and part-time intensity is just as marked for older workers as for younger ones.

A second issue surrounding the measures used in table 1 and the tabulation on page 22 is that the calculation of both the growth in industry employment and an industry's part-time intensity treats part-time and full-time workers equally: each counts as one full observation. But the evident importance of part-time work as a fraction of full-time work suggests that total employment may not be the appropriate measure of industry size, as a given increase in the number of part-time workers represents a smaller increase in hours and, presumably, output than an identical increase in the number of full-time workers. In other words, might it be that part-time-intensive industries appear to grow faster simply because, by virtue of hiring more part-timers, they have to hire even more of them to increase hours by any given amount? The correlations in the fifth and sixth rows of table 1 weight each part-time (full-time) worker by the average hours per week worked by part-time (full-time) workers in that employee's industry-year cell. Thus, the growth rate of an industry is now seen as the growth rate of its hours worked, and its part-time intensity refers to the fraction of total hours that are worked by part-time workers in the industry.<sup>10</sup> This change in measurement makes little difference to the estimates.

Moreover, because part-timers are generally paid at a lower hourly rate than full-timers, one may arguably infer that their productivity is lower, and therefore, that one hour of part-time labor should not be counted as equal to one hour of full-time labor. If the relative prices of various "grades" of labor have remained constant over the years and across industries (an admittedly strong assumption), then substituting compensation for employment or hours is one way to control for differences in productivity between part-time and full-time

**Table 2.** Correlations between employment growth and the prevalence of part-time workers in seven countries, various years from 1979 to 1994

| Country              | Years   | N  | Unweighted (Pearson) | Weighted    | Spearman rank |
|----------------------|---------|----|----------------------|-------------|---------------|
| Australia .....      | 1981-89 | 10 | 0.74 (0.01)          | 0.58 (0.08) | 0.82 (0.01)   |
| Canada .....         | 1987-94 | 12 | .27 (.40)            | .27 (.39)   | .50 (.10)     |
| Israel .....         | 1979-92 | 6  | .40 (.43)            | .36 (.49)   | .43 (.40)     |
| Netherlands .....    | 1983-91 | 8  | .87 (.01)            | .91 (.01)   | .67 (.07)     |
| Sweden .....         | 1981-92 | 25 | .47 (.02)            | .43 (.03)   | .39 (.05)     |
| Taiwan .....         | 1981-91 | 8  | -.22 (.60)           | -.22 (.60)  | -.19 (.65)    |
| United Kingdom ..... | 1979-86 | 28 | .18 (.35)            | .25 (.20)   | .34 (.08)     |

Note: Level of significance is shown in parentheses.

labor. In this regard, given the limitations of the CPS data, weekly earnings, rather than total compensation, are used.<sup>11</sup> The results, shown in the last two rows of table 1, are similar to those in the fifth and sixth rows.<sup>12</sup>

### Intrinsic or accidental?

The previous section demonstrates that the recent positive association between an industry's growth rate and the percentage of that industry's workforce who work part time stands up to alterations in the definitions and measurement of industry growth and part-time employment. What is behind the correlation? Is greater use of part-time work an intrinsic characteristic of fast growth? Or do the industries that happen to have grown relatively quickly in the 1980s and early 1990s tend, by their nature, to use more part-time work, whether or not they happen to be growing fast?

Recent rapid growth appears to have been associated with part-time work in countries other than the United States as well. Table 2 displays correlations between industry growth rates and the incidence of part-time work in data for several countries drawn from the Luxembourg Income Study.<sup>13</sup> The countries, periods, and industry definitions used were determined by the availability of data.<sup>14</sup> In all cases, agriculture and all levels of government were excluded from the analysis; in no case would their inclusion have weakened the results.

Although the results are by no means uniform, the comparison across countries indicates that there may be more to the matter than mere happenstance. In those countries that, arguably, are most like the United States (Australia, Canada, the Netherlands, Sweden, and the United Kingdom), the correlations are significantly positive in three of five cases, and the results for the other two are suggestive.

Fast growth alone can call for more use of part-time workers if, for example, it requires greater flexibility in adjusting one's workforce or involves many temporary tasks that part-timers are better suited to, or more willing to perform, than are full-timers.<sup>15</sup> If so, then we might expect faster industry growth to have been associated with more part-time labor in past periods as well and would expect it to remain thus in the future. On the other hand, if it is only a matter of the particular industries that happen to have been growing quickly recently, then there is no obvious reason to think that this problem, if problem it be, will stay with us over the long run.

Some light may be shed on this question by examining the relationship between industry growth and part-time work in earlier periods. The earliest year in which the decennial census included data on the distribution of weekly hours worked, by industry, was 1940, so the decade of the 1940s is as far back as national household survey data allow us to go. Unfortunately, unlike more recent CPS's, the 1940 and 1950 censuses asked only for the number of hours

that a person worked the previous week, with no information requested on the number of hours usually worked. Using the number of hours worked the previous week to define part-time and full-time work likely overstates the incidence of part-time work because short weeks due, for example, to illness or temporary downturns in production are counted.

In order to facilitate comparisons with the 1940s, table 1 and the tabulation on page 22 used hours actually worked during the reference week. For the 1983-93 period, using usual hours instead of the previous week's hours would have made little difference (the results were a bit stronger using usual hours), and we can hope that using actual hours creates no problems for the 1940s either.<sup>16</sup>

The industry classification schemes differ between the two periods and are not compatible. In the analysis that follows, for the more recent period, the same two-digit coding as above is used. For the 1940 and 1950 censuses, industries were aggregated into a different "two-digit" scheme comprising 99 industries.

The following tabulation displays the correlations between industry growth rates and the fraction of employees that worked part time during the 1940-50 period, using first part-time intensities in 1940 and then part-time intensities in 1950:

|                            | 1940         | 1950         |
|----------------------------|--------------|--------------|
| N .....                    | 99           | 99           |
| Unweighted (Pearson) ..... | -0.20 (0.05) | -0.17 (0.10) |
| Weighted .....             | -.17 (.10)   | -.25 (.02)   |
| Spearman rank .....        | -.21 (.04)   | -.20 (.05)   |

Notice that, in contrast to the correlations of the period from 1983 to 1993, those from the 1940-50 period are negative. Nor were the 1940s simply an odd time: the correlations become progressively more positive as the decade that is examined approaches the 1980s. (Results are not shown, but may be obtained upon request.) Thus, the tabulation presents no evidence to the effect that the greater use of part-time work is an intrinsic characteristic of relatively fast growth; if it were, the positive relationship of the 1983-93 period would have been seen in all decades. Remarkably, an observer in 1950 may have been tempted to conclude that the relationship was negative.

So, in recent years part-time-intensive industries tended to grow relatively quickly, while in the 1940s they tended to grow relatively slowly. Were these the same industries? Not at all: by the measures employed, different industries tended to use more part-time workers over the decades. This is illustrated in the following tabulation, which presents the rankings of the eight nonagricultural industry divisions by their growth rates and fraction of employees that worked part time in each period:

*Descending order of growth rate*

| 1983-93 CPS                                             | 1940 census-1950 census                                 |
|---------------------------------------------------------|---------------------------------------------------------|
| 1. Services                                             | 1. Construction                                         |
| 2. Transportation, communications, and public utilities | 2. Wholesale trade                                      |
| 3. Retail trade                                         | 3. Manufacturing                                        |
| 4. Finance, insurance, and real estate                  | 4. Transportation, communications, and public utilities |
| 5. Construction                                         | 5. Retail trade                                         |
| 6. Wholesale trade                                      | 6. Services                                             |
| 7. Manufacturing                                        | 7. Finance, insurance, and real estate                  |
| 8. Mining                                               | 8. Mining                                               |

*Descending order of percentage of employees working part time*

| 1983-93 CPS                                             | 1940 census                                             | 1950 census                                             |
|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
| 1. Retail trade                                         | 1. Mining                                               | 1. Mining                                               |
| 2. Services                                             | 2. Construction                                         | 2. Construction                                         |
| 3. Construction                                         | 3. Services                                             | 3. Services                                             |
| 4. Finance, insurance, and real estate                  | 4. Retail trade                                         | 4. Retail trade                                         |
| 5. Transportation, communications, and public utilities | 5. Manufacturing                                        | 5. Manufacturing                                        |
| 6. Wholesale trade                                      | 6. Finance, insurance, and real estate                  | 6. Finance, insurance, and real estate                  |
| 7. Manufacturing                                        | 7. Wholesale trade                                      | 7. Wholesale trade                                      |
| 8. Mining                                               | 8. Transportation, communications, and public utilities | 8. Transportation, communications, and public utilities |

Mining is the most striking case: the slowest growing sector in both sets of data, it was the least part-time intensive in the 1983-93 period, yet the most part-time intensive in 1940 and 1950.<sup>17</sup> Wholesale trade also did not fit into any pattern, while manufacturing became less part-time intensive and slower growing.

To push the investigation back another decade, one must turn to other sources of data on the fraction of an industry's employees that works part time. The National Income and Product Accounts report both total employment and a measure of full-time-equivalent employment going back to 1929.<sup>18</sup> Using these data, we can define  $z = 1 - (\text{full-time-equivalent employment}/\text{employment})$ . If we let  $p$  denote the true fraction of part-time workers in an industry and  $a$  the ratio of part-time to full-time average hours in the industry, then  $z = (1 - a)p$ . So if  $a$  is fairly constant across industries, then  $z$  is a

reasonable proxy for the relative fraction of employees that works part time in an industry at any given time.

Table 3 displays the correlations between  $1 - (\text{full-time-equivalent employment}/\text{employment})$  and the industry growth rate for various periods.<sup>19</sup> The data from the National Income and Product Accounts are reported at a somewhat more aggregated level than the "two-digit" scheme used for the 1940 Census data. The greater aggregation results in 59 industry categories for the years between 1929 and 1947 and 60 categories for later years.

The Spearman rank correlations are significantly positive throughout the postwar period, but the ordinary correlations vary substantially, and a clearly positive association emerges only in the 1980s.<sup>20</sup> In contrast to the census data, the rank correlations in table 3 may encourage the suspicion that fast growth and intensive use of part-time labor do go together in general, at least in the U.S. postwar economy, but the evidence is not compelling.

### Voluntary and involuntary part time

One would be concerned about the relative prevalence of part-time jobs in fast-growing industries only if many of the people who fill these jobs would rather work full time. In the economy as a whole, the proportion of the labor force that is working part time has not increased since about 1983 (following a period of rapid increase in the 1960s and 1970s). Nor has the proportion of those working part time who are doing so because they could not find full-time work increased since about the same time (again following a period of marked increase). But is this true for people taking jobs in the relatively fast-growing industries?

To answer this question, we classify all people who report that they usually work full time as full-time workers. Then we define a person as an involuntary part-time worker if the person usually works part time because he or she cannot find full-time work, and as a voluntary part-time worker if the person usually works part time for other reasons.<sup>21</sup> Then, in place of the one question, we have the two questions, Do

**Table 3.** Correlations between the employment growth rate and the quantity  $1 - (\text{full-time-equivalent employment}/\text{employment})$ , various years from 1929 to 1991

| Years         | N  | Unweighted (Pearson) | Weighted    | Spearman rank |
|---------------|----|----------------------|-------------|---------------|
| 1929-38 ..... | 59 | -0.03 (.84)          | 0.07 (0.60) | -0.01 (0.96)  |
| 1939-47 ..... | 59 | .20 (.13)            | .43 (.01)   | .17 (.20)     |
| 1948-58 ..... | 60 | .14 (.28)            | .18 (.17)   | .27 (.04)     |
| 1959-69 ..... | 60 | .06 (.64)            | -.10 (.44)  | .31 (.02)     |
| 1970-80 ..... | 60 | .01 (.95)            | .11 (.40)   | .34 (.01)     |
| 1981-91 ..... | 60 | .27 (.04)            | .31 (.02)   | .55 (.01)     |

NOTE: Level of significance is shown in parentheses.

relatively fast-growing industries employ and hire a greater proportion of involuntarily part-time workers? and, if so, Have these proportions changed over the period under study?

Chart 2 addresses these questions by showing the ratio of involuntary part-time workers to all usually part-time workers in those two-digit nonagricultural industries in each quartile of industry growth rates. There is no indication, either in the chart or in the more formal correlations shown in the first two rows of table 4, that a higher proportion of faster growing industries' part-timers are involuntary part-time workers or that the proportion of involuntary part-timers increased in faster growing industries.

More of a case can be made that involuntary part-time work may be related to relatively rapid employment growth at the entry level. The third and fourth rows of table 4 use the industries' accession rates instead of employment growth rates. The remaining rows use employment growth rates, but confine the sample to younger workers. The correlations indicate that industries with higher accession rates have tended to hire a greater proportion of involuntary part-timers among those that they hire to work part time and that industries with higher growth rates in an age group likely to be associated with entry-level career-track jobs have tended to employ a greater proportion of involuntary part-timers among the part-timers in that age group. However, these correlations have proven to be sufficiently sensitive to changes in the defi-

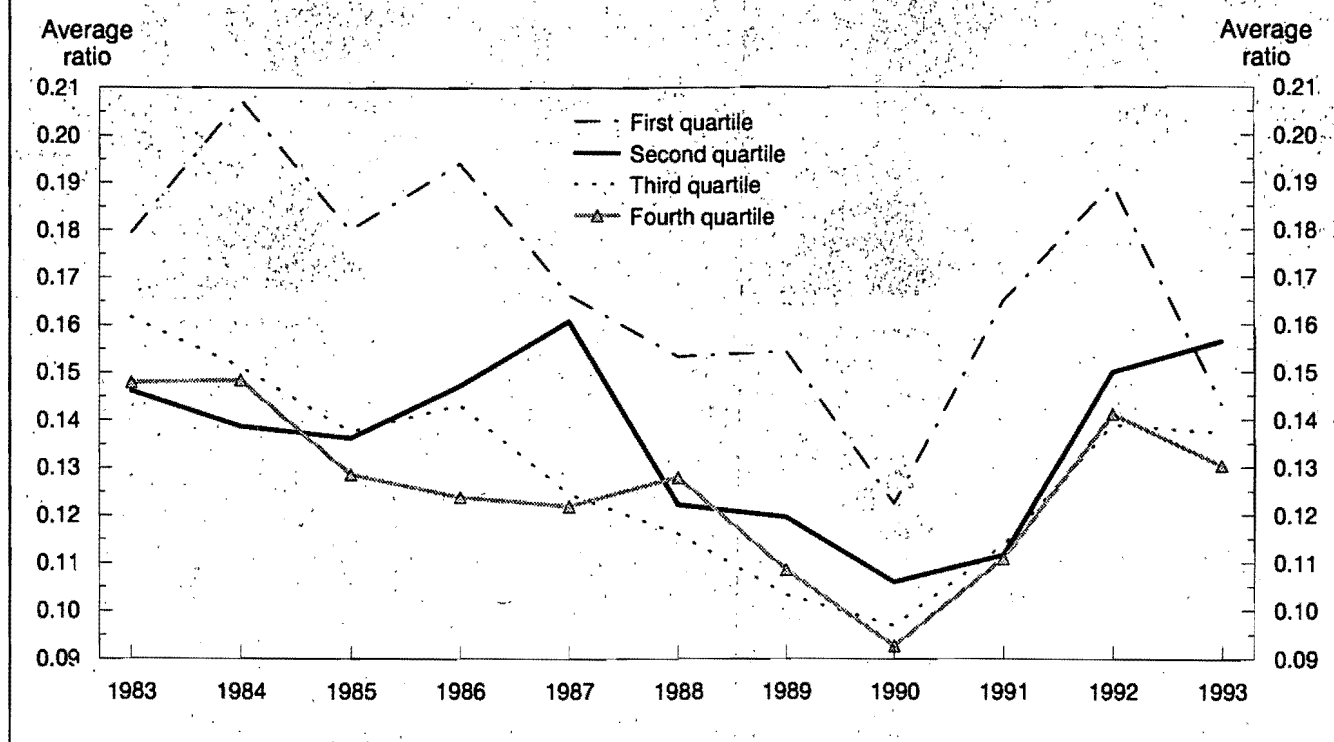
**Table 4. Employment growth rates and ratio of involuntary part-time workers to total part-time workers, two-digit industry level, 1983-93**

| Rate                   | Age of sample      | Variable        | Unweighted (Pearson) | Weighted    | Spearman rank |
|------------------------|--------------------|-----------------|----------------------|-------------|---------------|
| Employment growth rate | 16 years and older | Ratio           | 0.01 (0.93)          | 0.00 (0.97) | 0.02 (0.88)   |
| Employment growth rate | 16 years and older | Change in ratio | .09 (.47)            | -.06 (.64)  | -.04 (.77)    |
| New-hire rate          | 16 years and older | Ratio           | .22 (.08)            | .22 (.09)   | .25 (.05)     |
| New-hire rate          | 16 years and older | Change in ratio | .00 (.98)            | .04 (.76)   | .15 (.29)     |
| Employment growth rate | 20-24 years        | Ratio           | .10 (.46)            | .17 (.18)   | .17 (.20)     |
| Employment growth rate | 20-24 years        | Change in ratio | -.16 (.27)           | -.26 (.07)  | -.20 (.16)    |
| Employment growth rate | 25-34 years        | Ratio           | .26 (.04)            | .27 (.04)   | .28 (.03)     |
| Employment growth rate | 25-34 years        | Change in ratio | -.05 (.74)           | -.21 (.13)  | -.08 (.55)    |

NOTE: Level of significance is shown in parentheses.

inition of the sample, that one hesitates to draw strong inferences from them.

**Chart 2. Ratio of involuntary to total part-time workers, two-digit industries, by quartile of employment growth rate, 1983-93**



POPULAR OBSERVERS LOOK TO VISIBLY FAST-GROWING INDUSTRIES—transportation, business services, recreation, health care, and the like—to gauge the opportunities available to people looking for jobs. Seeing how much those industries make use of part-time workers, many observers have become concerned that full-time jobs are increasingly harder to come by—despite the fact that the percentage of the labor force that works part time has not changed appreciably since the late 1970s. While available measures of the number of part-time workers may, of course, miss something that is going on with part-time jobs, the impression of an ever-more part-time economy is probably largely driven by the fact that, over the past couple of decades, employment growth has, indeed, been concentrated in industries in which part-time work is relatively common.

This article has documented the positive association between the growth rate of an industry and the proportion of its workforce that works part time for a period between the early 1980s and the early 1990s. The analysis has been shown to hold up to questions about the way in which industry growth and part-time intensity are measured and has investigated

two aspects of the nature of that relationship.

In the latter regard, first, one may conjecture that part-time workers are particularly well suited to the changing demands of rapidly growing industries. However, the positive association between industry growth and part-time intensity does not emerge clearly in the data until the 1980s. Moreover, both the relative growth rates and the relative part-time intensities of industries have changed markedly over the post-war period. Accordingly, one should be cautious in assuming that fast-growing industries will continue to use part-time labor intensively or that part-time-intensive industries will continue to grow quickly.

Second, there is no indication that the part-time workers at fast-growing industries are more likely to be working part time because they could not find full-time work. While some rather weak evidence suggests that new or younger workers are more constrained in this fashion, the percentage of involuntary part-timers among all part-timers in faster growing industries is not systematically different from that in slower growing industries, nor does there appear to be any trend in that direction.

## Footnotes

<sup>1</sup> Both headlines appeared in Peter Behr and Judith Evans, "Workers Feel the Tensions of Trend to Part-Time Jobs," *The Washington Post*, Aug. 7, 1997, p. E1.

<sup>2</sup> See the next section for definitions. The data are drawn from March Current Population Surveys (cps's). The redesign of the cps in 1994 makes 1993 a natural stopping point for the analysis in this article, but none of its conclusions appear to be contradicted by experience since 1993. The year 1983 was chosen as a beginning point because it is similar to 1993 in terms of the cyclical behavior of the unemployment rate and because the "modern" period in which the proportion of the workforce working part time was no longer increasing dramatically had clearly begun by then.

<sup>3</sup> Bruce C. Fallick, "The Hiring of New Labor by Expanding Industries," *Labour Economics*, March 1996, pp. 25–42.

<sup>4</sup> Observations were weighted by cps person-weights in calculating growth rates and part-time intensities. Only observations employed during the reference week were used in the calculations of growth rates.

<sup>5</sup> Note that the cps data include persons who worked less than 35 hours a week for noneconomic reasons, such as illness or being on holiday or vacation. Note also that sometime between the years 1983 and 1993 marking the period under study in this article, the BLS definitions of "part time" and "full time" changed, a change that is not reflected herein.

<sup>6</sup> Over the 1983–93 period, 25 percent of observations were of employees who worked part time the previous week, compared with 19 percent who reported that they *usually* worked part time. However, the correlation between the two (at the two-digit industry level) is 0.99.

<sup>7</sup> Three-digit industry codes from the cps were mapped into two-digit 1987 SIC codes. Government, agriculture, forestry, and fisheries were excluded from the analysis.

<sup>8</sup> On the other hand, accession rates may confuse industry *growth* with industry *turnover*.

<sup>9</sup> There is significant room for misclassification of a person's industry in the

cps, as well as for misclassification of a worker as a new hire. (See Fallick, "The Hiring of New Labor.")

<sup>10</sup> Of course, this statement is not strictly true, because, as noted above, the weekly hours measure refers to the hours worked by a person *at all jobs*.

<sup>11</sup> The mean weekly earnings for the outgoing rotation group in each industry-year-part-time/full-time cell were applied to the full sample in that cell.

<sup>12</sup> In a related vein, only a small part of the correlation between part-time work and industry growth can be accounted for by the age, gender, race, and educational distribution of the workforce. That is to say, while it is true that faster growing industries tend to employ and to hire more young, old, and highly educated workers, this tendency does not explain their heavy use of part-time labor.

<sup>13</sup> The Luxembourg Income Study is a cooperative research project that draws together microdata from household surveys from numerous countries. Information on the project can be found on the Internet at <http://lissy.ceps.lu/index.htm>.

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<sup>14</sup> The table reports correlations for every country participating in the Luxembourg Income Study for which sufficient person-level data were available, with the exception of Germany. Because of that country's recent reunification, consistent data for Germany do not span a sufficiently long period to provide comparability with the data of the other countries that contributed to the study.

<sup>15</sup> See Jane Friesen, "The Dynamic Demand for Part-time and Full-time Labour," *Economica*, August 1997, pp. 495–507. One consideration is that there may not be as much room to adjust the hours of full-time employees upward as downward, whereas part-time employees may be more equally flexible

in both directions. However, one must be careful not to confuse part-time with contingent work.

<sup>16</sup> Note also that the results (for either period) are not sensitive to whether one uses the standard definition of part time as less than 35 hours per week or another conventional cutoff time, such as 40 hours per week.

<sup>17</sup> By the 1960 census, mining had fallen to the middle of the pack; by the 1970 census, it was the least part-time intensive of the eight sectors.

<sup>18</sup> Full-time-equivalent employment was calculated by dividing total hours from establishment survey data by estimates of full-time hours. Unfortunately, the source data are lost to posterity.

<sup>19</sup> Computing growth rates by using full-time-equivalent employment instead of total employment would be analogous to weighting employment by

hours. Total employment growth rates and full-time-equivalent employment growth rates are highly similar (with correlations of greater than 0.99), so either growth measure would give the same results.

<sup>20</sup> Note that the correlations between the growth rate based upon total employment, which is used in this analysis, and the rate based upon full-time-equivalent employment are not as high for the decades 1929–38 and 1939–47 (approximately 0.94) as they are for the later years (all approximately 0.99). The results for 1939–47 would be weaker if the full-time-equivalent employment growth rates were used instead.

<sup>21</sup> Note that this definition differs from the BLS classifications of involuntary part time (really, part time for economic reasons) and voluntary part time (really, part time for noneconomic reasons), both of which include many people who usually work full time, but worked fewer than 35 hours during the reference week.

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