

Wage differentials associated with working at home

Both theory and evidence suggest a productivity effect, a hedonic effect, and a risk premium associated with working at home; an analysis of a sample drawn from the May 2001 Current Population Survey finds positive wage differentials overall for men and women, with significant differentials emerging for selected reasons and industries

Bonnie Sue Gariety
and
Sherrill Shaffer

This article presents an empirical test of wage differentials associated with working at home, as further categorized by frequency of working at home, stated reason for working at home, and industry, major occupation, or sex of the worker. The test potentially reflects several factors, including hedonic differentials, productivity effects, and risk sharing. The analysis presented quantifies such differentials; previous studies have not done so, although they have explored factors underlying the choice to work at home,¹ the impact of working at home on travel and congestion,² and other related issues.³

A major motivation of the analysis is to address, in a quantitative way, the long-running argument as to whether employees who work at home are privileged or exploited.⁴ In addition, survey evidence has indicated widespread interest among employees in working at home, more so than is apparent from the proportion of employees actually telecommuting.⁵ By contrast, evidence is mixed on whether telecommuting, on average, has improved either productivity or morale.⁶ Telecommuting offers the potential for substantial positive externalities by reducing the congestion and pollution associated with conventional commuting, but possibly at the cost of reduced agglomeration economies.⁷ Controversy notwithstanding, in recent years nearly one-fifth of the U.S. workforce has telecommuted on a part-time or full-time basis, while some estimates

suggest that nearly two-thirds of all jobs are amenable to telecommuting.⁸ Thus, further research on the causes and consequences of working at home appears warranted.

The nationwide sample in the analysis that follows makes up more than 8,800 wage and salary workers and is obtained from the U.S. Current Population Survey supplement on work schedules and work at home for May 2001. The sample represents wage and salary workers, omitting self-employed workers. The analysis finds that working at home is associated with significant wage differentials, positive overall, but negative for some industries, for both men and women. This finding could arise as some combination of several possible factors. On the one hand, a positive compensating wage differential may accompany employer-mandated working at home. On the other hand, a positive productivity effect may stem from either the selective granting of working at home to more productive employees or, perhaps, a productivity-enhancing factor intrinsic to working at home, such as improved morale, less time spent in unproductive activities (for example, chatting with coworkers around the water cooler), or less fatigue associated with commuting. Available data cannot distinguish between these contrasting possibilities. Likewise, negative wage differentials for working at home may reflect some combination of a hedonic adjustment for individuals preferring to work at home

Bonnie Sue Gariety is an economist at the Oregon employment Department, Portland, OR; Sherrill Shaffer is John A. Guthrie, Sr., Distinguished Professor of Banking and Financial Services, Department of Economics and Finance, at the University of Wyoming, Laramie, WY.
E-mail: shaffer@uwyo.edu

and a negative productivity effect due to a factor such as more opportunity for shirking work or less immediate access to some inputs available in a centralized workplace.

Background and hypotheses

The association between working at home and wages reflects at least two intricately interwoven, non-mutually-exclusive hypotheses.

Hypothesis 1 (hedonic wage effect and revealed-preference hypothesis). The hedonic wage effect reflects a worker's willingness to pay (or forgo income) for desirable job attributes or to require additional compensation to accept undesirable job attributes.⁹ For example, when an employee chooses to work at home as a substitute for working at the employer's centralized location, either full or part time, the revealed-preference hypothesis suggests that the employee perceives some benefit from that choice. In one study, 88 percent of a sample of surveyed workers expressed a preference for working at home, compared with only 13 percent who actually worked at home.¹⁰ In this situation, hedonic wage theory predicts that the employee may accept a somewhat lower wage than he or she would if the same work had to be performed away from home.

By contrast, in a competitive labor market, an employer who mandates working at home may be forced to pay a higher wage to those employees who would prefer to commute to a central office. If an employee prefers to work at home and is required to do so by his or her employer, the wage effect might be ambiguous, although it is perhaps implausible to hypothesize that a negative wage differential would be imposed without allowing the employee a choice of worksite.

Hypothesis 2 (productivity effect and efficiency wage hypothesis). This hypothesis reflects the operation of competitive labor markets, in which employers are forced to pay higher wages to more productive workers.¹¹ For example, an employer cannot continually monitor the effort of an employee working at home. Thus, working at home may afford increased opportunity for shirking work, particularly if family or other responsibilities occasionally intrude. Further, some tasks may require networking with coworkers, and these tasks cannot be performed as efficiently at home. Finally, when employers mandate working at home, the morale of some affected employees may be lower, possibly undermining their productivity. For all these reasons, work performed at home may be less productive than work performed in a centralized office, and the efficiency wage

hypothesis would then predict that competitive wage rates would be lower for employees who perform substantial amounts of their work at home. In this case, the hedonic wage effect would be reinforced when employees make the choice of location, but counteracted otherwise.

By contrast, employees who work at home may be *more* productive, for any of several reasons. When employees are given the choice, employers may offer that choice only to those employees who have proven to be more productive and reliable. Alternatively, or in addition, employees choosing to work at home may have improved morale, and this may translate in part into higher productivity.¹² For example, working at home may shield an employee from distractions such as office gossip or needless meetings, reducing the amount of time wasted during the day.¹³ In contrast, employees facing a long commute may experience more fatigue and, hence, lower productivity than their counterparts who work at home.¹⁴ Some survey evidence suggests that employees working at home often work longer hours, possibly to prove that they are productive and to mitigate concerns about their career advancement.¹⁵ Survey results indicate that absenteeism is notably lower among employees who work at home.¹⁶ In all such cases, the efficiency wage hypothesis would predict that competitive wage rates would be higher for employees who do much or all of their work at home, tending to offset any negative hedonic wage differential. To the extent that employers who mandate working at home do so for only their most productive employees (or for the most productive tasks), the hedonic and efficiency wage effects would reinforce each other.

The empirical results presented in the next two sections reflect the net effect of various combinations of the aforementioned hypotheses, though without being able to differentiate among them. Overall, given the available data, there is only a limited basis for predicting the sign of the net wage differential. An earlier study found generally positive wage differentials associated with flextime, suggesting that positive wage differentials also could be associated with working at home to the extent that similar factors are operative.¹⁷ Otherwise, the foregoing reasoning suggests the possibility of negative wage differentials when employees choose to work at home. We might expect a positive wage differential to be associated with employer-mandated work at home.

Data and empirical specification

The sample consists of microdata from the outgoing rotation groups of the Current Population Survey (CPS) sup-

plement entitled “Work Schedules and Work at Home” from May 2001.¹⁸ Every household that participates in the CPS survey is interviewed each month for 4 months, then draws a bye for 8 months, and then is interviewed again for 4 more months. Each household, then, participates in the survey a total of 8 months. In one-quarter of the survey’s monthly sample, employed adults are asked detailed questions about their earnings from work. This group is referred to as the outgoing rotation group. The detailed questions are asked of that portion of the population which roughly corresponds to wage and salary workers; self-employed persons in incorporated businesses are excluded. The self-employed who are likely to work at home are not included in the analysis presented here.

The outgoing rotations are known as the Earner Study participants and include those asked basic questions related to worker characteristics such as age, race, and education, as well as the special set of earners’ questions. The answers to the latter questions provide information about weekly and hourly pay and union membership, information that is in the subsequent analysis, along with information garnered from the survey questions regarding work at home. The full CPS file comprises 118,323 records, one for each individual who participated in the interview. Using only the records from the outgoing rotations reduces the data set by 75 percent, to 29,557 records. Further, because the focus is on full-time workers who may work at home as part of their job, records of participants who work less than 35 hours per week are deleted from the data set, thereby reducing the number of records to 9,940. Only participants between the ages of 22 and 65 years, inclusive, with an educational level greater than seventh grade are retained. To control for any miscoding errors, records of workers who report earning less than \$2 dollars per hour are deleted as well. The final data set contains 8,861 records, of which 4,054 (46 percent) pertain to women and 4,807 (54 percent) pertain to men. Regression results and sample statistics were weighted with weights from the outgoing rotation.¹⁹

The natural logarithm of wages is used as the dependent variable in estimating the wage equation. The baseline specification is

$$\text{Ln}(W_i) = \alpha + X_i\beta_1 + \beta_2\text{HOME} + \varepsilon_i \quad (1)$$

where X_i is a vector of measurable characteristics expected to affect wages, including potential work experience and its squared value, education, marital status, and race. These variables are commonly included in studies of com-

pensating wage differentials.²⁰ Other often-studied job characteristics that may affect wage rates are geographic location (region of country; urban or rural nature), union membership, and fixed effects for major industry and major occupation. HOME is a binary variable equal to 1 for individuals who reported working at home and 0 otherwise. The stochastic error term is ε_i . Separate estimates were generated for men and for women.

Following previous studies, the analysis presented here anticipates positive coefficients on potential experience, education, metropolitan location, Caucasian race, and union membership and negative coefficients on experience squared and the Southern region. Similarly, the analysis expects the coefficient on married status to be positive for men, but negative for women. The anticipated coefficient on HOME has an ambiguous sign, reflecting the opposing effects discussed in the previous section.

The survey reported specific reasons for working at home; these reasons are substituted as a vector in place of HOME in a second regression. The original set of reasons is reduced to five in the regressions, to avoid excessively small subsamples in any one category. This decomposition provides separate estimates of the wage differential associated with working at home for each reason. Finally, two other equations are estimated, to quantify any systematic differences in the wage differentials associated with working at home by major industry and by major occupation. In the first of these equations, we replace HOME by a vector defined as the product of HOME and the vector of industry dummies. In the other equation, we replace HOME by a vector equal to the product of HOME and the vector of occupation dummies. These decompositions permit inferences as to whether the mix of offsetting factors varies across industries or occupations. Although it is natural to suppose that such variation exists, no specific effects are postulated a priori.

Table 1 presents descriptive statistics for the major variables. The ranges of the variables are not reported, because most of the regressors are binary variables. “Experience” is a measure of potential work experience, defined as age, minus education, minus 6 years, and usually is a larger number than one’s actual experience. In cases where the hourly wage rate reported in the CPS survey is zero or less, an implausible figure that likely signals a coding error, that figure is replaced with the ratio of the reported weekly earnings to the reported usual hours. The next section reports the estimates produced by an ordinary least squares regression, weighted by the outgoing rotation group weights of the participants in the survey.

Table 1. Descriptive statistics, major analytical variables

Variable	Women		Men	
	Mean	Standard deviation	Mean	Standard deviation
Experience.....	20.827	9.756	20.624	9.504
Education.....	14.059	2.320	13.800	2.451
South.....	.3653	.4278	.3460	.4307
Metropolitan.....	.8383	.3271	.8385	.3331
Married.....	.5916	.4367	.6806	.4221
Caucasian.....	.7958	.3581	.8443	.3282
Union.....	.1521	.3191	.1958	.3593
Home.....	.1573	.3234	.1301	.3046
Wage.....	15.045	7.421	18.890	10.048

SOURCE: Current Population Survey supplement, "Work Schedules and Work at Home," May 2001.

Results

Table 2 reports the regression results for the baseline specification. A significant positive wage differential is associated with working at home: about 9 cents per hour for women and 13 cents per hour for men. This finding suggests that some combination of higher productivity and distaste for working at home may be a dominant pattern across the full sample, in which 633 women and 621 men reported performing some work at home.

Table 3 reports the wage differentials associated with specific features of working at home. In the first row, the baseline specification is modified by replacing the "work at home" variable with a binary variable indicating whether an individual had a formal agreement with his or her employer to be paid for working at home. A positive wage differential equal to 13.5 cents per hour was observed for women who had such an agreement (significant at the 0.0002 level), and a positive wage differential equal to 16.2 cents per hour was found for men who had such an agreement (significant at the 0.0001 level). These differentials are both somewhat larger than those found in the first regression. In the sample, 140 women and 132 men reported having formal agreements to be paid for working at home. Coefficients on the other variables and adjusted R^2 's were similar to those shown in table 2.

The next three rows of table 3 report regressions in which the scalar "working at home" is replaced with a vector of binary variables indicating how often an individual worked at home. Women who reported working at home at least once a week exhibited a positive wage differential of 7.1 cents per hour; men in the same category had a positive wage differential of 12.4 cents per hour. Larger differentials were associated with working at home less frequently: for women, 14.0 cents per hour for those who

worked at home once every other week and 12.9 cents per hour for those who worked at home once a month; for men, 16.3 cents per hour for those who worked at home once every other week and 16.8 cents per hour for those who worked at home once a month. These coefficients were all significant at the 0.01 level, with t -statistics ranging from 2.7 to 5.5. Again, the adjusted R^2 's and the coefficients of other variables remained essentially unchanged.

The final three rows of Table 3 present the wage differentials associated with interactive terms combining a formal agreement for working at home with selected frequencies of working at home. Women who worked at home once a week under a formal agreement earned almost 11 cents per hour more than either women who worked at home once a week without a formal agreement or women who worked at home less often with a formal agreement. Similarly, women who worked at home once every other week under a formal agreement earned about 40 cents per hour more than either women who worked at home once every other week without a formal agreement or women who worked at home more often or less often with a formal agreement. In both cases, the differentials were statistically significant at better than the .01 level ($p < .01$). Men who worked at home once a week under a formal agreement earned nearly 11 cents per hour more than either men who worked at home once a week without a formal agreement or men who worked at home less often with a formal agreement, while men who worked at home once a month under a formal agreement earned about 23 cents per hour more than either men who worked at home once a month without a formal agreement, men who worked at home less often with a formal agreement, or men who never worked at home. In both cases, the differentials were statistically significant at better than the

Table 2. Wage differentials associated with working at home

Variable	Women			Men		
	Coefficient	t-statistic	p-value	Coefficient	t-statistic	p-value
Constant.....	0.9048	¹ 5.03	0.0001	1.0342	¹ 11.09	0.0001
Experience.....	.0202	¹ 9.73	.0001	.0264	¹ 11.80	.0001
Experience squared.....	-3.28E-4	¹ -7.13	.0001	-4.34 E-4	¹ -8.89	.0001
Education.....	.0661	¹ 21.82	.0001	.0626	¹ 21.37	.0001
South.....	-.0465	¹ -3.62	.0003	-.0678	¹ -5.20	.0001
Metro.....	.1285	¹ 7.71	.0001	.1241	¹ 7.35	.0001
Married.....	.0212	² 1.67	.0955	.0868	¹ 6.27	.0001
Caucasian.....	.0297	² 1.93	.0536	.1220	¹ 7.20	.0001
Union.....	.0960	¹ 5.12	.0001	.1119	¹ 6.77	.0001
Home.....	.0925	¹ 5.02	.0001	.1314	¹ 6.68	.0001
Number of observations.....	4,016	...	...	4,739	...	...
Adjusted R ².....	.406	...	...	.385	...	...

¹ Significant at the 0.001 level.² Significant at the 0.10 level.³ NOTE: For brevity, fixed effects for major industry and occupation are not reported.**Table 3. Wage effects of working at home under a formal agreement at various frequencies**

Formal agreement and frequency	Women				Men			
	Coefficient	t-statistic	p-value	n	Coefficient	t-statistic	p-value	n
Formal agreement.....	0.1350	¹ 3.77	0.0002	140	0.1625	¹ 4.12	0.0001	132
Weekly.....	.0709	¹ 3.38	.0007	478	.1237	¹ 5.53	.0001	452
Biweekly.....	.1399	¹ 2.74	.0062	58	.1630	¹ 3.32	.0009	75
Monthly.....	.1289	¹ 2.73	.0063	68	.1676	¹ 3.13	.0017	62
Formal agreement × weekly.....	.1060	² 2.69	.0072	98	.1081	² 2.50	.0123	97
Formal agreement × biweekly.....	.4027	¹ 3.39	.0007	10	.0069	.06	.9496	15
Formal agreement × monthly.....	.0914	1.02	.3071	18	.2302	² 2.18	.0297	16

¹ Significant at the 0.01 level.² Significant at the 0.05 level.

NOTE: For brevity, coefficients on other variables in the baseline

specification, including fixed effects for major industry and occupation, are not reported. In the regressions categorizing the frequency of working at home, the omitted category is "less than once a month."

.05 level ($p < .05$). As before, for both women and men, the adjusted R^2 's and the coefficients of other variables (not reported in the table) remained similar to those in table 2.

Table 4 displays the estimated wage differentials by reason for working at home. The estimated differentials are all positive, all statistically significant for men, and nearly all statistically significant for women. The largest differentials are observed for working at home to reduce commuting (42 cents per hour for men and 27 cents per hour for women), for men working at home to finish or catch up with work (21 cents per hour), and for working at home to coordinate one's work schedule with personal or family needs (20 cents per hour for men and 18 cents per hour for women). The only insignificant coefficient, for women whose business is conducted from home, contrasts strong-

ly with that for men whose business is conducted from home, but is consistent with a variety of explanations, such as (1) women who own a business have no systematic preference for or against working at home, in combination with the absence of a productivity differential, or (b) a positive hedonic wage differential is largely offset by a negative productivity effect.

Table 5 summarizes the wage differentials associated with working at home by major industry and by occupation. More than half (62 percent) of the major industry interactions exhibit significant wage differentials for at least one of the sexes, with educational and other professional employees exhibiting significant negative wage differentials for both men and women working at home. Negative wage differentials also were found for female re-

Table 4. Wage effects of reasons for working at home

Reason	Women				Men			
	Coefficient	t-statistic	p-value	n	Coefficient	t-statistic	p-value	n
Catch up.....	0.1023	¹ 4.21	0.0001	350	0.2095	¹ 8.00	0.0001	328
Business.....	.0905	1.29	.1965	35	.1606	² 2.50	.0124	48
Nature.....	.1025	¹ 3.02	.0026	163	.1265	¹ 3.55	.0004	164
Coordinate.....	.1788	² 2.68	.0074	39	.2010	² 2.30	.0215	26
Commute.....	.2689	³ 1.72	.0847	7	.4222	¹ 4.26	.0001	20

¹ Significant at the 0.01 level.

² Significant at the 0.05 level.

³ Significant at the 0.10 level.

NOTES: Reasons reported for working at home are as follows: Catch up = Finish or catch up with work. Business = Business is conducted from home. Nature = Nature of the job entails working at home. Coordinate = Work at home to coordinate work schedule with personal

or family needs. Commute = Work at home to reduce commuting time or expense or to comply with local transportation or pollution control program. Omitted category is any other reason, as well as no answer, refusal, or don't know.

For brevity, coefficients on other variables in the baseline specification, including fixed effects for major industry and occupation, are not reported.

Table 5. Wage differentials associated with interactions between working at home and industry or occupation

Industry or occupation	Women				Men			
	Coefficient	t-statistic	p-value	n	Coefficient	t-statistic	p-value	n
Home × industry								
Mining and construction ...	-0.0378	-0.33	0.739	13	0.0070	0.08	0.937	28
Manufacturing .....	.0658	.85	.394	35	.0350	.60	.550	104
Transportation	-.1797	-1.41	.159	10	.0696	.67	.504	20
Communication .....	.2796	² 2.15	.032	10	.0619	.48	.635	12
Utilities.....	.4892	² 2.47	.014	4	.1097	.84	.403	12
Wholesale .....	.0371	.36	.716	18	.1035	1.41	.158	51
Retail.....	-.1736	² -2.06	.040	28	-.0548	-.72	.470	44
Financial.....	.0464	.71	.479	58	.1607	² 2.52	.012	78
Hospital.....	-.0936	-1.14	.254	30	-.0421	-.28	.777	9
Medical.....	-.1513	³ -1.70	.090	24	-.0678	-.53	.597	12
Education	-.3449	¹ -7.07	.0001	253	-.3565	¹ -5.80	.0001	88
Social services	-.4876	¹ -6.04	.0001	31	-.2280	-1.46	.145	8
Professional	-.2434	¹ -2.98	.003	30	-.1362	³ -1.89	.059	51
Home × occupation								
Managerial	-.0239	-.10	.922	467	.4447	¹ 3.10	.002	417
Technicians .....	.0891	.34	.733	19	.5146	¹ 3.05	.002	22
Sales .....	.0862	.35	.730	57	.5124	¹ 3.47	.0005	105
Administrative support.....	-.1724	-.70	.486	79	.3440	³ 1.90	.057	15
Services	-.3654	-1.32	.187	9	.3637	² 2.38	.018	53

¹ Significant at the 0.01 level.

² Significant at the 0.05 level.

³ Significant at the 0.10 level.

NOTES: For brevity's sake, coefficients on other variables in the baseline specification, including fixed effects for major industry and occupation, are not reported.

Industries: Medical excludes hospital; utilities include sanitary services. Omitted industries are agriculture, automotive and repair services, personal services, entertainment and recreation services,

private households, and Armed Forces.

Occupations: Managerial includes executive, administrative, managerial, and professional specialty occupations. Administrative support includes administrative support and clerical occupations. Services include protective services, other services, and precision production, craft, and repair occupations. Professional comprises specialty professional occupations such as engineers, architects, and scientists. Omitted occupations are handlers; equipment cleaners; helpers; laborers; private household occupations; Armed Forces; machine operators; transportation and moving; and farming, forestry, and fishing.

tail, social services, and nonhospital medical workers, although the differential for the latter was only marginally significant. These findings are consistent with some combination of a negative productivity differential for working at home and a hedonic differential for employees who prefer to work at home. Significant positive wage differ-

entials were found for men working at home in financial jobs and for women working at home in communication and utilities jobs. The largest estimated differentials are a positive wage differential of about 49 cents per hour for female utility workers, an equal negative differential for female social services workers, and a negative differential

of about 35 cents per hour for both sexes in education. No significant wage differentials were found for women working at home by major occupation, but each major occupation exhibited a significant positive wage differential for men working at home.

USING A NATIONWIDE SAMPLE of more than 8,800 workers, and controlling for a variety of relevant demographic and nondemographic factors, the study presented in this article has found that working at home often commands a higher wage than does traditional work at a central location. This finding holds for both men and women, for a variety of stated reasons for working at home, and for women in two industries. Negative wage differentials for working at home were found for men and women in two industries and for women in three other industries. Significant wage differentials for working at home were not associated with specific categories of occupation or with five of the industries in the sample.

Given previous findings that a majority of workers

may prefer to work at home, the negative wage differentials are likely driven by hedonic factors, while the positive differentials are probably associated with an unobserved productivity differential, consistent with the hypothesis that working at home is more productive either because of systematic selection by employers or because of special factors intrinsic to home-based work. Workers who are not explicitly compensated for working at home may earn a higher wage because their decision to take some work home contributes to their overall productivity.

The adoption of telecommuting (along with other forms of working at home) by millions of workers, the ongoing debate over its positive and negative consequences, and the potential for working at home to mitigate serious social problems such as congestion and pollution all render this topic worthy of further investigation. The sign and magnitude of net externalities is one important area that private wage data cannot address and that therefore remains beyond the scope of this study. □

Notes

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¹ Patricia Mokhtarian and Ilan Salomon, "Modeling the Choice of Telecommuting: 3. Identifying the Choice Set and Estimating Binary Choice Models for Technology-Based Alternatives," *Environment and Planning A*, October 1996, 1877–94.

² Patricia L. Mokhtarian, "A Synthetic Approach to Estimating the Impacts of Telecommuting on Travel," *Urban Studies*, February 1998, 215–41.

³ Edward E. Potter, "Telecommuting: The Future of Work, Corporate Culture, and American Society," *Journal of Labor Research*, winter 2003, pp. 73–84.

⁴ Linda N. Edwards and Elizabeth Field-Hendrey, "Home-based workers: data from the 1990 Census of Population," *Monthly Labor Review*, November 1996, pp. 26–34.

⁵ Mokhtarian and Salomon, "Modeling the Choice of Telecommuting." The data and tests presented in the current article apply to working at home, of which "telecommuting" may be only a subset in which connective technology is used. The sparse prior literature on working at home motivates the inclusion of studies on telecommuting in the discussion herein.

⁶ For example, Potter, "Telecommuting," suggests that it has, whereas Stephanie Armour, "Telecommuting Gets Stuck in the Slow Lane," *USA Today*, June 25, 2001, pp. 1–2, proposes that it hasn't.

⁷ Elena Safirova, "Telecommuting, Traffic Congestion, and Agglomeration: A General Equilibrium Model," *Journal of Urban Economics*, July 2002, pp. 26–52. Agglomeration economies, in this context, are the economic benefits derived from the availability of a local concentration of people or other resources.

⁸ Potter, "Telecommuting."

⁹ Sherwin Rosen, "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy*, January–February 1974, pp. 34–55.

¹⁰ Mokhtarian and Salomon, "Modeling the Choice of Telecommuting."

¹¹ Joseph E. Stiglitz, "The Efficiency Wage Hypothesis, Surplus Labour, and the Distribution of Income in L.D.C.s," *Oxford Economic Papers*, July 1976, pp. 185–207.

¹² See J. Patrick Raines and Charles G. Leathers, "Telecommuting: The New Wave of Workplace Technology Will Create a Flood of Change in Social Institutions," *Journal of Economic Issues*, June 2001, 307–13; and Potter, "Telecommuting."

¹³ Raines and Leathers, "Telecommuting"; Potter, "Telecommuting."

¹⁴ *Ibid.*

¹⁵ Armour, "Telecommuting Gets Stuck"; Potter, "Telecommuting."

¹⁶ Potter, "Telecommuting."

¹⁷ Bonnie Gariety and Sherrill Shaffer, "Wage differentials associated with flextime," *Monthly Labor Review*, March 2001, pp. 68–75.

¹⁸ See also the BLS report on this supplement, titled "Work at Home in 2001," a news release from Mar. 1, 2002, on the Internet at <ftp://ftp.bls.gov/pub/news.release/History/homey.03012002.news>.

¹⁹ Thanks go to an anonymous referee for noting the importance of the weights from the outgoing rotation.

²⁰ See Rosen, "Hedonic Prices and Implicit Markets"; and Charles Brown, "Equalizing Differences in the Labor Market," *Quarterly Journal of Economics*, February 1980, pp. 113–34.