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Coworking couples and the similar jobs of dual-earner households

Although an increasing number of studies consider married or cohabiting couples as current, former, or potential coworkers, surprisingly, little evidence exists on the extent to which these couples work at the same workplace. Using Census 2000 responses linked with administrative records data, this study provides benchmark estimates on the frequency (in percentages) with which opposite-sex married and cohabiting couples in the United States share the same occupation, industry, work location, and employer. This study contains the first representative estimate (in the range from 11 percent to 13 percent) of the fraction of couples who shared an employer in 2000. These shared employers can account for much of couples' shared industry, occupation, and location of employment. Longitudinal data on the employment and residency indicate that coworking couples are much more likely to have chosen the same employer than to have met at work. QCT Test.

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The extent to which married or cohabiting couples share an employer is important for many economic and demographic topics. For example, it is well known that members of couples often are similar in educational attainment or socioeconomic status.[1] These shared characteristics may cause, or be caused by, couples working together. Some authors have also studied the phenomenon of couples meeting at work.[2] A few studies have explored the benefits of couples coworking, including those by Moen and Sweet, Janning, and Halbesleben.[3] Workplace antinepotism policies seem to either discourage couples from forming among coworkers or discourage the members of such couples from continuing to share the same employer. More broadly, many studies use survey data to analyze couples who maintain similar employment, and such employment homogamy may be driven by couples sharing employers.[4] Despite the importance of this sharing, surprisingly little is known about the extent to which couples are also coworkers.

In this study, I provide evidence on the extent to which couples are also coworkers. To provide evidence on the frequency (in percentages) with which dual-earner couples worked (in 2000) in similar industries, occupations, and locations, as well as the extent to which they shared an employer, I use microdata from the Census 2000 that are

linked with administrative records data.[5] I show that similar employment was pervasive among U.S. dual-earner couples and that 11 percent to 13 percent worked for the same employer. I also provide evidence on how the dynamics of employment and relationships give rise to coworking couples. I find that most of the coworking couples in 2000 were established couples choosing to work for the same employer. Meeting at work is only a secondary role: far fewer coworking couples can be accounted for by couples forming among coworkers.

This study uses Census 2000 long-form responses linked with administrative records data, as just mentioned, to provide population-representative estimates of the set of married and cohabiting couples in which both members were from the ages of 16 to 64 in 2000. Before considering the extent to which couples were also coworkers, I explore the extent to which couples had similar job characteristics. The survey data, as well as the linked administrative records data, provide information on the relative frequency with which couples share the same occupation, industry, or location of work. In addition, I compare estimates from these data sources whenever possible. A sizable fraction of couples shared the same occupation in 2000: 4 percent to 13 percent, depending on the granularity of the definition. Couples more commonly shared the same industry than they shared the same occupation. In addition, 12 percent to 15 percent of couples shared a narrow industry, whereas 21 percent to 26 percent shared a broad industry. Not surprisingly, since couples generally share a residence, substantial similarity also was found in the locations where couples worked: 50 percent to 68 percent worked in the same county, and 66 percent to 82 percent worked within 25 miles of each other. Survey data often indicate more similarity in work locations than administrative records data, especially at higher levels of aggregation.

I provide the first comprehensive estimate of the frequency with which couples in 2000 shared an employer: 10 percent to 12 percent of couples worked at the same establishment, and 11 percent to 13 percent worked for the same firm. A thorough search of studies on dual-earner couples yielded only a handful of similar estimates, all of which are from studies in which that frequency is not of central interest. Using surveys that take a small number of employers as a sample frame, Batt and Valcour in 2003 and Moen and Sweet in 2002 and in 2004 considered samples in which 15 percent (from several employers), 40 percent (from five manufacturing or utilities employers), and 17 percent (from two universities) of dual-earner married couples worked for the same employer.[6] This current study's finding that 11 percent to 13 percent of dual-earner couples shared the same employer is at the low end of this range of estimates.

I document that couples' shared job characteristics are largely driven by coworking. Of those who worked in the same narrow census industry, about 63 percent worked in the same workplace, as did 70 percent of those who worked in the same census block (narrowly defined geography) and 47 percent of those who reported working in the same narrow occupation. I also compare the industry distribution that would prevail if couples were randomly assigned and find that all the excess industry agreement is accounted for by coworking couples. This finding has important implications for empirical studies that use survey data to assess the extent to which shared employment characteristics reflect labor income risk. Although couples sharing the same industry or occupation certainly exposes households to shocks to demand for similar products or tasks, this finding suggests that shared job characteristics mostly reflect exposure to demand for a particular firm's output, which is usually much more volatile.[7] I explore whether coworking couples exist because the workplace can serve as a mechanism for household formation, an idea that Mansour and McKinnish recently considered in a 2018 article.[8] By distinguishing between couples who were or were not coworking or coresiding before (in 1999) and after (in 2001) they responded to the Census 2000 long form, I estimate how frequently coworking couples chose the same employer relative to those who met at work. Of new coworking couples, 10 times as many couples existed prior to

the shared employment as did previous coworkers who were previously coresidents. This result implies that the vast majority of coworking couples chose the same employer after meeting rather than meeting on the job, suggesting a strong role for married and unmarried partner couples as a source of job referrals. Thus, this finding indicates that the family is an important social network for determining employment outcomes.

Similar employment in Census 2000 long form

The results in this article come from a unique set of linked datasets. The frame of this analysis is the long form of the Census 2000, a 1-in-6 sample of the population of the United States. These microdata are linked with administrative records on the universe of unemployment insurance taxable employment, maintained by the U.S. Census Bureau's Longitudinal Employer–Household Dynamics (LEHD) program. These data allow me to estimate the extent to which couples shared an employer in 2000, as well as alternative estimates of the extent to which couples worked in similar industries and locations.

Respondents to the long form of the Census 2000 provided information on, at most, one employer, including the employer's industry and location and the respondent's occupation. The results in this article are based on either the Census 2000 long-form public-use microdata or a 1-percent random sample of long-form responses. In addition, these results tabulate the responses of the roughly 8.5 million opposite-sex married and unmarried partner households who were sampled in the long form and who did not live in group quarters.[9] Results also are limited to the 83 percent of couples in which both members were from the ages of 16 to 64. The 90 percent of married couples are pooled with the remainder of cohabiting couples (unless noted otherwise). I present, whenever practical, estimates that represent this so-defined working-age population of couples who lived in the 50 states or the District of Columbia.[10]

Several additional variables not directly available in the source dataset are defined. First, the distance between places of work compares the latitude and longitude of census block centroids. Note that this definition of distance implies that the distance between two workplaces in the same block is zero.[11] Second, a U.S. Census Bureau crosswalk aggregates Census 2000 industries to 1997 North American Industry Classification System (NAICS) sectors and supersectors.[12] Third, a similar U.S. Census Bureau crosswalk is used in this article to aggregate Census 2000 occupations to 2000 Standard Occupational Classification (SOC) system minor groups and major groups.[13] A fourth variable that I created concerns work locations. All employed respondents had information on their county of work. However, in 17 percent of households, at least one member lacked subcounty place of work information because of incomplete answers, or answers that were otherwise difficult to geocode. I used imputation to fill in missing common location and distance between worksites, conditional on observable characteristics.

Table 1 gives the employment rates from the sample of Census 2000 long-form respondents in which both members were, at the time, from the ages of 16 to 64. In 2000, about 58 percent of these working-age couples in the United States were dual earners, while most of the remainder were couples in which only the man worked. Compared with married couples, unmarried partner households had higher female employment rates and lower male employment rates and were 2 to 3 percentage points more likely to be dual earners. Working-age couples in which neither partner was employed were relatively infrequent and occurred in less than 10 percent of married or cohabiting couples.

Table 1. Household employment status (in percent) of Census 2000 respondents

Household employment status	All couples	Married couples	Unmarried partners
Both male and female respondents with a job, at work	57.7	57.5	60.1
Male respondent only with a job, at work	25.8	26.4	19.6
Female respondent only with a job, at work	7.6	7.3	10.4
Neither partner with a job, at work	8.9	8.8	9.9
N (weighted, in millions)	49.7	45.3	4.4

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Responses are weighted by the person weight of the primary respondent.

Source: Author's calculations based on public-use Census 2000 long-form responses.

The Census 2000 long form indicates that dual-earner couples frequently worked in similar jobs, as shown in table 2. They tended to work near each other: 10 percent of dual-earner couples worked in the same census block and 68 percent in the same county. In 0.7 percent of dual-earner couples, both members worked from home, so these couples account for less than one-tenth of all who worked in the same census block. Another 43 percent of dual-earner couples worked within 5 miles of each other, and about 82 percent worked within 25 miles of each other. Industry agreement is also quite substantial: among dual-earner couples, 12 percent worked for the same narrowly defined census industry and 21 percent of couples reported responses that aggregate to the same broad industry (NAICS supersector). Less similarity is found for occupations: only 4 percent of dual-earner couples worked in the same narrow occupation, and only 13 percent of respondent occupations aggregate to the same broad occupational group (SOC major group).

Table 2. Similar employment (in percent) for couples (Census 2000 respondents) in which both members worked

Employment outcome	All couples	Married couples	Unmarried partners
Same industry, occupation, and block*	1.9	1.9	1.9
Same industry and occupation	3.1	3.1	3.1
Same industry and block*	7.0	6.8	8.3
Same occupation and block*	2.1	2.1	2.2
Similar occupation			
Same census occupation	4.5	4.4	5.1
Same SOC minor occupation	6.7	6.6	7.4
Same SOC major occupation	12.8	12.7	14.3
Similar industry			
Same census industry	11.8	11.7	13.5
Same NAICS sector	19.1	18.9	21.3
Same NAICS supersector	21.4	21.2	23.1
Similar location			
Same census block*	10.4	10.2	11.8
Both worked from home	0.7	0.8	0.4
By distance between census blocks			
Within 5 miles*	43.1	42.9	44.4
Within 10 miles*	59.2	59.0	60.8

See footnotes at end of table.

Table 2. Similar employment (in percent) for couples (Census 2000 respondents) in which both members worked

Employment outcome	All couples	Married couples	Unmarried partners
Within 25 miles*	82.2	82.2	82.3
By geography			
Same census tract*	16.2	16.2	16.5
Same county*	68.2	68.0	70.1
Same state	94.8	94.7	95.1
N (1-percent sample, weighted, in millions)*	28.5	25.8	2.6
N (public-use microdata sample, weighted, in millions)	28.7	26.0	2.6

*Calculations are from a 1-percent sample of the source microdata. All other tabulations are from the public-use Census 2000 long-form microdata.

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS) aggregations are assigned with the use of crosswalks from responses coded to census occupations and industries, respectively. Responses for the public-use data are weighted by the person weight of the primary respondent, and the 1-percent sample is weighted by this value times 100.

Source: Author's calculations based on Census 2000 long-form responses.

Table 2 also contains information on how frequently couples shared combinations of narrow industries, occupations, and blocks (of employment). Of all couples, 1.9 percent shared the same detailed census industry, occupation, and block. Nearly all respondents who shared the same detailed occupation and block also shared the same detailed industry (2.1 percent vs. 1.9 percent), and most of those who shared the same detailed industry and occupation also worked in the same census block (3.1 percent vs. 1.9 percent). In contrast, most of those who shared the same detailed industry and block of employment had different narrowly defined occupations. The outcomes of married and cohabiting dual-earner couples are sufficiently similar that, for ease of exposition, subsequent results pool married and cohabiting couples unless otherwise noted.

The results in table 2 largely agree with the shared industry and occupational tabulations presented by Shore and Sinai, who consider responses from the Survey of Income and Program Participation 1996–2000 and the 1980, 1990, and 2000 Censuses.[14] Shore and Sinai report that 9 percent of couples share an industry when they use the Survey of Income and Program Participation and 15 percent when they use three censuses. The 12 percent of Census 2000 responses shown in table 2 lie between these estimates. The 4 percent that worked in the same census occupation is close to the 3 percent Shore and Sinai report for the Survey of Income and Program Participation, but substantially less than the 10 percent they report using the three censuses.

Table 3 presents the occupation distribution, by SOC major group, for men and women in dual-earner couples, along with the distribution of couples who shared the same SOC major group in the 2000 Census. For comparison, the table highlights the occupation distribution that would prevail under random matching.[15] Among dual-earner couples, the table shows that sharing an occupation is more than twice as common as that that would be predicted by chance (3.7 million vs. 1.6 million). Conditional on couples sharing a broad occupation, the distribution is broadly similar to that of the members of dual-earner couples. The greatest exception is for occupations in office and administrative support, which comprise only 15.8 percent of those who shared a SOC major group rather than 27.9 percent under random assignment. Education, training, and library occupations also have a relatively large share of dual-earner couples: 9.5 percent rather than 6.2 percent under random assignment. This share is larger

because men in education tended to marry in education. Although only 3.3 percent of men worked in the education, training, and services SOC major group, the percentage of dual-earner couples in this group is 2.9 (= 9.5 ÷ 3.3) times larger. Because 12.8 percent of dual-earner couples worked in the same SOC major group, this finding implies that about 37.1 percent (= 2.9 × 12.8) of men working in education and part of a dual-earner couple were also married to someone working in education.

Table 3. Occupation distribution (in percent) of men and women in dual-earner couples, couples who shared the same SOC major group, and couples under random assignment, Census 2000

SOC major group	Observed couples			Random assignment of same SOC major group
	All men	All women	Same SOC major group	
Management	13.3	8.1	14.7	18.8
Business and financial operations	4.3	5.7	3.8	4.3
Computer and mathematical	3.3	1.8	2.5	1.0
Architecture and engineering	3.9	0.6	1.1	0.4
Life, physical, and social science	1.2	0.9	0.9	0.2
Community and social services	1.3	1.9	1.1	0.4
Legal	1.2	1.2	1.5	0.3
Education, training, and library	3.3	10.8	9.5	6.2
Arts, design, entertainment, sports, and media	1.8	2.0	1.7	0.6
Healthcare practitioners and technical	2.5	8.7	6.8	3.8
Healthcare support	0.3	3.2	0.4	0.2
Protective service	3.4	0.6	1.3	0.4
Food preparation and serving related	1.6	3.9	2.9	1.1
Building and grounds cleaning and maintenance	2.9	2.2	2.4	1.1
Personal care and service	0.8	4.4	1.1	1.1
Sales and related	10.5	10.1	14.3	18.5
Office and administrative support	6.2	25.7	15.8	27.9
Farming, fishing, and forestry	0.7	0.3	0.6	0.0
Construction and extraction	9.5	0.3	0.9	0.5
Installation, maintenance, and repair	7.8	0.4	0.6	0.5
Production	11.0	5.4	12.7	10.3
Transportation and material moving	8.6	1.8	3.2	2.7
Military specific	0.3	0.0	0.1	0.0
N (weighted, in millions)	28.7	28.7	3.7	1.6

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Standard Occupational Classification (SOC) aggregations are assigned with the use of a crosswalk from responses coded to census occupations. Responses are weighted by the person weight of the primary respondent.

Source: Author's calculations based on Census 2000 long-form responses.

Sharing employment in the same industry for dual-earner couples is even more common than sharing an occupation for dual-earner couples. Table 4 presents Census 2000 responses by NAICS sector on the percentage of industry share among all dual-earner couples, the percentage of industry share of those couples working in same industry, and percentage of a randomly matched counterfactual for comparison. Industry agreement is more

than twice that that would be predicted by chance: 5.5 million versus 2.0 million. But apart from this overall tendency for couples to share the same industry, the particular industries align with those which would be predicted by random chance. Many couples who shared an industry in 2000 worked in educational services, healthcare and social assistance, and retail trade. As table 4 shows, the observed shares in those industries in 2000 were consistent with the predictions under random assignment. Proportionately few couples shared employment in the manufacturing sector: 21.7 percent of shared-sector couples, compared with 28.7 percent under random assignment.

Table 4. Comparison of industry (in percent), by gender, and of same industry couples in which both members worked during the Census 2000

NAICS sector	Observed couples			Random assignment of same NAICS sector
	All men	All women	Same NAICS sector	
Agriculture, forestry, fishing, and hunting	2.0	0.7	1.8	0.2
Mining, quarrying, and oil and gas extraction	0.6	0.1	0.2	0.0
Utilities	1.7	0.5	0.4	0.1
Construction	11.2	1.7	4.0	2.8
Manufacturing	19.8	9.8	21.7	28.7
Wholesale trade	5.1	2.5	2.4	1.9
Retail trade	9.3	10.8	11.3	14.9
Transportation and warehousing	6.3	2.4	3.3	2.2
Information	3.1	2.8	2.2	1.3
Finance and insurance	3.9	7.3	4.2	4.2
Real estate and rental and leasing	1.7	1.9	1.3	0.5
Professional, scientific, and technical services	6.3	6.2	6.5	5.7
Management of companies and enterprises	0.1	0.1	0.0	0.0
Administrative and support and waste management and remediation services	2.9	2.8	1.9	1.2
Educational services	5.6	15.1	12.7	12.5
Healthcare and social assistance	4.5	19.6	10.7	13.0
Arts, entertainment, and recreation	1.4	1.4	1.1	0.3
Accommodation and food services	2.9	4.6	4.9	2.0
Other services (excluding public administration)	4.4	4.9	3.4	3.2
Public administration	7.3	4.8	6.1	5.2
N (weighted, in millions)	28.7	28.7	5.5	2.0

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. North American Industry Classification System (NAICS) aggregations are assigned with the use a crosswalk from responses coded to Census 2000 industries. Responses are weighted by the person weight of the primary respondent.

Source: Author's calculations based on Census 2000 long-form responses.

Demographic breakdowns of Census 2000 long-form responses of dual-earner couples are shown in table 5 for all couples and for those who shared a census industry, occupation, or block (of employment). Couples who shared a census block were disproportionately older (ages 55–64), whereas those who shared an industry tended to be younger (16–24 and 25–44). Asian and Hispanic members of dual-earner couples were more likely to share the

same occupation, industry, or block as their partner. Those who shared an occupation, industry, or census block were more highly educated than members of dual-earner couples, generally.

Table 5. Percentage of dual-earner couples with similar employment who worked during the 2000 Census, by selected characteristics

Characteristics	All dual-earner couples	Shared census occupation	Shared census industry	Shared census block*
Men				
Age				
16 to 24	3.6	3.6	3.4	3.2
25 to 44	54.6	52.6	50.4	53.6
45 to 54	29.3	29.4	31.0	28.7
55 to 64	12.6	14.3	15.3	14.5
Race and ethnicity				
White	83.6	79.9	82.8	80.2
Black	7.6	5.8	5.8	5.3
Asian	3.2	7.7	5.6	8.9
Hispanic of any race	7.7	9.3	8.3	9.0
Education				
Less than high school	9.9	10.2	9.7	9.9
High school diploma	26.6	17.7	21.9	17.5
Some college or associate's degree	31.6	22.9	27.4	22.0
Bachelor's degree or more	31.8	49.2	41.1	50.7
Women				
Age				
16 to 24	5.8	5.7	5.5	5.2
25 to 44	59.5	58.8	56.6	59.3
45 to 54	27.0	27.1	28.7	27.6
55 to 64	7.6	8.4	9.2	7.9
Race and ethnicity				
White	83.6	79.4	82.6	80.0
Black	6.9	5.2	5.2	5.3
Asian	3.8	8.6	6.2	9.4
Hispanic of any race	7.8	9.5	8.5	9.6
Education				
Less than high school	7.4	9.8	8.4	9.8
High school diploma	26.4	20.1	24.4	20.6
Some college or associate's degree	34.7	23.8	31.2	22.8
Bachelor's degree or more	31.5	46.3	36.0	46.9
N (weighted, in millions)	28.7	1.3	3.4	1.3

*Calculations are from a 1-percent sample of the source microdata; otherwise, household-level tabulations are from the public-use Census 2000 long-form data.

See footnotes at end of table.

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Responses for the public-use data are weighted by the person weight of the primary respondent, and the 1-percent sample is weighted by this value times 100.

Source: Author's calculations based on Census 2000 long-form responses.

Dual-earner couples naturally share a local labor market. Some shared employment characteristics of dual-earner couples can result from the common set of job opportunities in their local area. For example, if a single dominant employer is located in an area in which the household lives (e.g., a "factory town"), respondents are more likely to report working in the same industry or geography. In this case, everyone in a given local area is likely to share the same industry or geography of employment. Couples' shared employer characteristics may be driven by this aspect of labor market segmentation. Table 6 provides estimates of shared workplace characteristics for the Census 2000 couples themselves, for simulated couples in which partners are randomly selected from the same (residential) census block, and for those who lived in the same census block and shared the same demographic characteristics.[16] Only about a third of dual-earner couples who responded to the Census 2000 had nonmissing subcounty workplace information for both members, as well as a potential alternative partner with nonmissing subcounty workplace information from the same census block. So I include an "Observed" column to present the characteristics of this selected subset. The estimates in the observed column are consistently higher than those in the column for random assignment. Of the 10.8 percent of respondents who shared the same census block, less than 10 percent of those (0.8 percent) shared the same census block as their randomly selected partner. This difference is similar in magnitude (10.8 percent vs. 1.2 percent) when households are selected with similar demographic characteristics. This comparison is useful because it suggests that sharing the same neighborhood, an important determinant of employment outcomes as established in some studies, is a far weaker predictor of a shared employer than is sharing the same household.[17] As I show in the next section, in most cases, sharing the same census block of employment means that the couple shares the same employer. This 9-to-10-percentage-point differential accounts for most of the excess similarities of dual-earner couples in terms of industry and place of work, although for a smaller amount of shared occupations.

Table 6. Random assignment comparison (in percent) of matched respondents within a census block, in 2000

Employment outcome	Any match obtained within residential block		Match within residential block, with similar demographic characteristics	
	Observed	Random assignment	Observed	Random assignment
Same industry, occupation, and block	2.3	0.1	2.0	0.1
Same industry and occupation	3.9	0.4	3.9	0.8
Same industry and block	8.5	0.4	8.4	0.8
Same occupation and block	2.6	0.1	2.6	0.1
Similar occupation				
Same census occupation	5.7	1.0	6.5	1.5
Same SOC minor occupation	8.1	2.4	9.1	3.1
Same SOC major occupation	14.6	7.3	15.2	8.6
Similar industry				
Same census industry	14.4	2.6	14.9	3.7

See footnotes at end of table.

Table 6. Random assignment comparison (in percent) of matched respondents within a census block, in 2000

Employment outcome	Any match obtained within residential block		Match within residential block, with similar demographic characteristics	
	Observed	Random assignment	Observed	Random assignment
Same NAICS sector	21.9	9.3	23.9	11.5
Same NAICS supersector	24.3	12.0	25.6	14.7
Similar location				
Same census block	10.8	0.8	10.8	1.2
By distance between blocks				
Within 5 miles	42.5	30.5	44.9	32.6
Within 10 miles	64.5	54.5	67.1	59.3
Within 25 miles	91.2	85.3	91.6	89.9
By geography				
Same census tract	14.8	3.8	14.9	4.9
Same county	69.8	60.1	70.9	64.0
Same state	95.3	90.5	96.3	94.3
N (weighted, in millions)	9.8	9.8	2.1	2.1

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS) aggregations are assigned with the use of crosswalks from responses coded to census occupations and industries, respectively. Responses are weighted by the person weight of the primary respondent times 100.

Source: Author's calculations based on Census 2000 long-form responses.

Shared employers and similar jobs in linked employer-household data

This section provides evidence on the frequency (in percentages) with which dual-earner couples worked for the same or similar employers in 2000. I present the evidence using the just-described household data from the Census 2000 linked to administrative records data from the LEHD program. These data include employment in the private sector and by state and local government and exclude those in military service, federal government workers, and the self-employed. These estimates are derived from 38 state-specific administrative datasets containing unemployment insurance wage reports and establishment-level workplace characteristics, including industry and location.[18] For the Census 2000, respondents reported only on the job at which they worked the most in the last week. When a person works for multiple employers, administrative records contain information from all employers. I consider employment for employees whose employers report wage records for them in the first and the second quarter of 2000. These employees likely had an employment relationship at the start of the quarter, that is, the end of March 2000. I select these data to compare more directly with the Census 2000, which targets March 30, 2000, as its response date.

A person's place of employment is defined at several levels. The main level at which employers in the LEHD data are defined is at the unemployment insurance account (called the state employer identification number or SEIN) level. States provide the federal employer identification number (FEIN) associated with the unemployment

insurance account. The Longitudinal Business Database is used to aggregate FEINs to the firm (shared operational control) level, which is the broadest level at which employers are defined.[19] The narrowest level of shared employment is the workplace (or establishment).

I use three stages of imputation to complete the information on industry, work location, and employer for the universe of Census 2000 responses. In the first stage, for unemployment insurance accounts with multiple establishments, which is about half of all employment, the establishment of employment is assigned by imputation.[20] Next, because only a subset of states have available data for 2000, county-level information is imputed for missing states. This process imputes an employment outcome for each household for each county: male member only works, female member only works, both members work, and neither works. If both members work in the county, a stage of imputation assigns whether they share a workplace, and if not, what characteristics their establishments of work share, if any. Finally, those couples in which one or both members lack a person identifier that allows linkage to administrative records data have imputed employment outcomes. When applicable, the missing geography and missing person identifiers use Census 2000 responses to predict shared employment outcomes.

Because the LEHD data for 2000 are for a 38-state sample and also exclude federal workers and the self-employed, the results in tables 7 and 8 contain estimates from several different methodologies. All couples are those in the 1-percent sample of Census 2000 long-form households. The tables show the percentages of those who are included in the 38-state set of 2000 LEHD data. These data are, therefore, directly tabulated from the Census 2000 LEHD matches. The national analogue is completed via imputation. The tables also include estimates that exclude couples in which either member reported dominant employment as a federal employee or self-employed in the Census 2000. Therefore, the LEHD data are not expected to contain information on the couples' primary employer. For these couples, estimates for the 38 states are calculated from the 38-state subset, and the national estimates include this imputed work information for employment outside the 38 states.

Table 7. Household employment status (in percent) of all dual-earner couples, in 2000, from LEHD data for 38 states and national level

Household employment status	All dual-earner couples		Couples excluding households with federal workers or self-employed	
	38 states	National	38 states	National
Both male and female respondents in LEHD	43.2	39.7	51.4	46.7
Male respondent only in LEHD	24.9	26.7	25.7	27.3
Female respondent only in LEHD	15.0	14.5	11.6	11.7
Neither partner in LEHD	16.8	19.0	11.2	14.3
N (weighted, in millions)	38.5	49.3	29.7	38.0

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. For 2000, Longitudinal Employer-Household Dynamics (LEHD) data are only available for 38 states. The estimates of the 38 states reflect the households that lived in those 38 LEHD states during the Census 2000 and are direct tabulations of the LEHD data, and both members were assigned a Protected Identification Key. National percentages include all households, including imputed employment responses for all missing states, and impute outcomes for households in which one or both PIKs are missing. Observations are weighted by the person weight of the primary respondent times 100.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD administrative records.

Table 8. Shared employment characteristics (in percent) among dual-earner couples, in 2000, from LEHD data for 38 states and national level

Employment outcome	All dual-earner couples		Couples excluding Census 2000 federal workers and self-employed	
	38 states	National	38 states	National
Shared employer				
Same workplace	11.7	11.7	10.3	10.3
Same SEIN	12.7	12.5	11.3	11.2
Same FEIN	12.9	12.8	11.5	11.5
Same firm	13.1	13.0	11.7	11.7
Shared industry				
Same six-digit NAICS	14.8	15.0	13.4	13.7
Same group	15.3	15.6	14.0	14.4
Same sector	23.1	22.3	22.0	21.4
Same supersector	25.9	26.0	24.9	25.1
Shared geography				
Same block	12.5	13.1	11.1	11.6
Same tract	15.8	16.6	14.4	15.3
Same county	50.4	50.5	49.6	50.0
Same state	95.1	94.8	95.3	95.0
Within 5 miles	31.0	34.1	29.8	32.8
Within 10 miles	46.7	49.1	45.7	48.2
Within 25 miles	66.8	66.4	66.4	66.1
N (weighted, in millions)	16.6	19.6	15.3	17.8

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Longitudinal Employer-Household Dynamics (LEHD) data are available for 38 states. The estimates of the 38 states include the households that lived in those 38 LEHD states in the Census 2000, are direct tabulations of the LEHD data, and exclude imputed outcomes. For the 38 state estimates, both members of the couple had to be assigned a Protected Identification Key and matched to an employer in the LEHD data. National percentages include all households and impute employment responses for all missing states. Observations are weighted by the person weight of the primary respondent times 100. FEIN = federal employee identification number, NAICS = North American Industry Classification System, and SEIN = state employee identification number.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD administrative records.

From the LEHD data, the frequency (in percentages) with which members of opposite-sex couples worked in 2000 is shown in table 7 for these different methodologies. In 39.7 percent to 51.4 percent of couples, both members worked for an employer whose workers were covered by unemployment insurance. Estimates of shared employment are naturally higher when households that report federal employment or self-employment are excluded (which do not appear in the LEHD data). However, on the basis of the Census 2000 responses, 57.7 percent of all couples were dual-earners (see table 1), and this estimate is higher than any comparable estimate in table 7. Of the remainder, about half were couples in which only the men had reported earnings in that year. The remaining 22.0 percent to 33.0 percent was roughly split between couples in which only the women had reported earnings and those in which neither member had reported earnings.

The frequency with which dual-earner couples worked for the same or similar employers is shown in table 8. Of the employed Census 2000 respondents, roughly 10.0 percent to 12.0 percent of two-income households worked at the same workplace. At broader levels of an employer's definition, this percentage naturally increases: as the table

shows, some couples worked at different establishments but were classified in the SEIN. Some couples worked in different states but for the same firm and so were classified to work in different SEINs. On the basis of the broadest definition of an employer, that of the firm, 11.7 percent to 13.1 percent of dual-earner couples shared an employer. Industry sharing is more common: 13.4 percent to 15.0 percent share the same narrow six-digit NAICS industry, and 24.9 percent to 26.0 percent share the same broad industry, defined at the NAICS supersector level. Estimates of shared industry at the broader sector and supersector levels are similar to those tabulated on the Census 2000 alone. At the finer levels of geography, results are similar to Census 2000 responses. According to the administrative records, 11.1 percent to 13.1 percent of the couples shared the same census block of employment, while 10.2 percent to 11.8 percent (table 2) did so in the Census 2000 responses. According to LEHD employment data, 14.4 to 16.6 percent of couples shared the same Census tract, while 16.2 percent to 16.5 percent (table 2) did so in the Census 2000. Much less agreement is found for the broader categories: 49.6 percent to 50.5 percent worked in the same county and 66.1 percent to 66.8 percent worked within 25 miles of each other, according to the administrative records. Administrative records sources suggest that couples worked at greater distances from each other. This discrepancy between survey tabulations and the administrative records data is due in part to the difference between the reported place of a business establishment and the location where the person worked. It is also partly due to uncertainty regarding the establishment of employment for workers at multiestablishment employers.

The results on the frequency with which members of a couple shared the same employer can be compared with a few reference points. Readers should note that the following estimates come from studies that do not claim to represent the U.S. population. The estimate that 11 percent to 13 percent of couples shared an employer is close to the estimate in Batt and Valcour that 15 percent of the couples in their sample shared an employer, but this similarity is most likely coincidental.[21] Batt and Valcour use the 1998 Cornell Couples and Careers Study that they describe as a nonrandom sample of the U.S. population. The authors point out that the study surveyed exempt (or salaried) employees from several employers in upstate New York: two in manufacturing, two in healthcare, two universities, and one utility company. Moen and Sweet provide estimates, largely from the same data source.[22] They use the survey responses from the same Cornell Couples and Careers Study, along with respondents' responses from additional employers (also in upstate New York), and report that 40 percent of dual-earner couples coworked at two manufacturing and three utility employers, and 17 percent coworked at two universities.

To account for the frequency with which couples responded to Census 2000 as sharing workplaces, I compute the frequency of Census 2000 reports of shared or similar employment characteristics of couples who worked at the same LEHD workplace, relative to all couples. Results are shown in table 9 and are limited to the 38 states for which LEHD data are available for 2000. These results also exclude those Census 2000 observations with missing subcounty geography. For Census 2000 respondents who were dual earners in the LEHD data and had the same industry, occupation, and block (of employment), administrative records data show that 83.8 percent shared a workplace. In addition, 70.0 percent of those who shared the same census block of employment shared a workplace. Shared workplaces explain less of the agreement of narrowly defined industry and occupation categories: 63.1 percent and 46.6 percent, respectively. At broader categories, shared workplaces naturally account for less of shared job characteristics.

Table 9. Similar employment (in percent) for dual-earner couples in which both members worked in 2000

Employment outcome	All dual-earner couples	Different workplace	Shared workplace	Shared workplace as percent of all
Same industry, occupation, and block	1.4	0.3	11.5	83.8
Same industry and occupation	2.7	1.1	17.2	64.7
Same industry and block	6.1	1.2	48.7	82.8
Same occupation and block	1.6	0.4	12.6	80.1
Similar occupation				
Same census occupation	4.2	2.5	18.9	46.6
Same SOC minor occupation	6.5	4.4	24.6	38.9
Same SOC major occupation	13.0	10.5	34.9	27.8
Similar industry				
Same census industry	11.7	4.8	71.1	63.1
Same NAICS sector	19.9	13.2	77.9	40.5
Same NAICS supersector	22.4	15.9	78.9	36.5
Similar location				
Same census block	8.5	2.8	57.4	70.0
By distance between blocks				
Within 5 miles	40.7	36.5	77.1	19.6
Within 10 miles	57.6	54.6	84.1	15.1
Within 25 miles	80.7	79.5	90.9	11.7
By geography				
Same census tract	14.0	8.5	61.8	45.7
Same county	65.4	62.6	89.3	14.1
Same state	93.2	92.9	95.7	10.6
N (weighted, in millions)	13.8	12.4	1.4	—

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Neither member could have had missing subcounty employer geography. Both members had to be assigned a Protected Identification Key and matched to an employer in the LEHD data. Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS) aggregations are assigned with the use of crosswalks from responses coded to Census 2000 occupations and industries, respectively. Responses are weighted by the person weight of the primary respondent times 100.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD administrative records.

The frequency with which men and women in dual-earner couples worked in particular industries (defined at the NAICS sector level) and worked in the same industry as their partner in 2000 is explored in table 10. Industry sharing is tabulated for all men and all women, as well as those who shared the same workplace. For comparison, the industry distribution that would occur if spouses were randomly assigned is also presented. Couples worked in the same industry more frequently than chance would predict (3.4 million vs. 2.1 million). The observed industry distribution is generally consistent with what chance would predict, although much fewer couples worked in manufacturing than would be predicted and somewhat more worked in retail trade. The frequency with which couples worked at the same workplace can explain the difference between the fraction of couples working in the same industry sector and that which chance would predict: 1.6 million couples worked at the same workplace and 1.3 million (= 3.4 – 2.1) more couples shared an industry than chance would predict. Figure 1 shows this difference

by industry.[23] Note that the “Shared establishments” entries sum to 1.6 million, while the “Excess shared industry” entries sum to 1.3 million. Couples sharing the same workplace can account for nearly all the excess frequency with which couples worked in every industry.

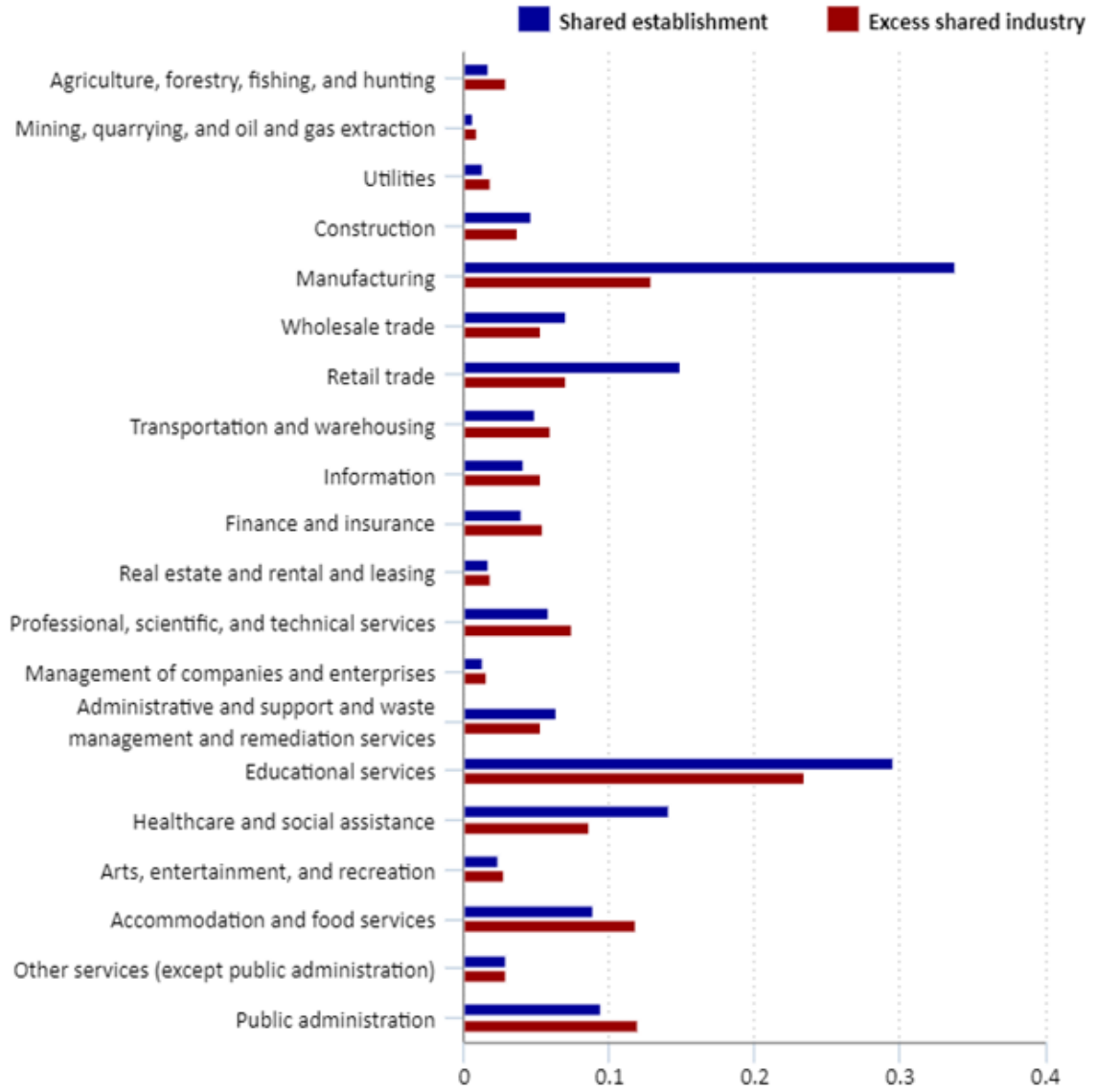
Table 10. Comparison of maximal earning industry (in percent), by gender, and of same industry dual-earner couples in which both members worked during the Census 2000

NAICS sector	All men	All women	Same workplace	Same NAICS sector	Under random assignment
Agriculture, forestry, fishing, and hunting	0.7	0.4	1.1	0.9	0.0
Mining, quarrying, and oil and gas extraction	0.7	0.2	0.4	0.3	0.0
Utilities	1.5	0.4	0.8	0.6	0.1
Construction	8.4	1.4	2.9	2.1	1.6
Manufacturing	22.9	10.7	21.2	24.5	33.4
Wholesale trade	7.0	3.3	4.4	3.5	3.2
Retail trade	10.2	10.6	9.3	11.2	14.8
Transportation and warehousing	5.0	2.0	3.1	2.6	1.4
Information	3.1	2.8	2.6	2.3	1.2
Finance and insurance	3.5	7.8	2.5	3.9	3.7
Real estate and rental and leasing	1.5	1.3	1.1	0.7	0.3
Professional, scientific, and technical services	5.7	6.0	3.7	5.1	4.7
Management of companies and enterprises	1.3	1.3	0.8	0.6	0.2
Administrative and support and waste management and remediation services	4.2	4.3	4.0	3.1	2.4
Educational services	7.1	15.7	18.5	16.3	15.2
Healthcare and social assistance	4.2	18.5	8.8	9.1	10.6
Arts, entertainment, and recreation	1.0	1.1	1.5	0.9	0.2
Accommodation and food services	3.0	4.8	5.6	4.7	2.0
Other services (excluding public administration)	2.5	3.0	1.8	1.5	1.0
Public administration	6.4	4.6	5.9	6.0	4.0
N (weighted, in millions)	15.3	15.3	1.6	3.4	2.1

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Both members had to be linked with Longitudinal Employer-Household Dynamics (LEHD) data for the 38 available states. Observations are weighted by the person weight of the primary respondent times 100. NAICS = North American Industry Classification System.

Source: Author’s calculations based on Census 2000 long-form responses linked with LEHD administrative records.

Figure 1. Shared establishment and excess shared industry (in millions) for dual-earner couples in which both members worked during the Census 2000



Click legend items to change data display. Hover over chart to view data.
Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members of the couple had to be in the range from 16 to 64. Both members of the couple had to report that they held a job in the last week. Both members had to be linked with Longitudinal Employer-Household Dynamics data for the 38 available states. Observations are weighted by the person weight of the primary respondent times 100. Values are rounded to three decimals.
Source: Author's calculations of Census 2000 long-form responses linked with Longitudinal Employer-Household Dynamics administrative records.

The demographic characteristics of couples in 2000 who shared a workplace are not very different from the characteristics of a broader population (all) of dual-earner couples, and both are shown in table 11. Couples who shared a workplace were somewhat older, more likely to have had a bachelor's degree, more likely to be Asian, and less likely to be Black than all dual-earner couples. Also included in table 11 are tabulations of the demographic characteristics of those who did not work in the same establishment but shared other employment characteristics: the same firm, the same six-digit NAICS code, or the same block of employment. Those who did

not share the same workplace but worked for the same firm had more education and were more likely to be Hispanic than all dual-earner households. Those who worked in the same narrowly defined NAICS industry, but not the same workplace, were far more likely to have had a bachelor's degree than all dual-earner households. Those who did not share a workplace but shared the same block had demographic characteristics that were very similar to those who shared a workplace, although they were somewhat younger.

Table 11. Percentage of dual-earner couples, by shared primary employer (38 states), and selected characteristics, in 2000

Characteristics	All dual-earner couples	Shared workplace	Not shared workplace and—		
			Shared firm	Shared NAICS industry (six digit)	Shared block
Men					
Age					
16 to 24	3.8	4.1	4.2	2.9	3.4
25 to 44	57.8	55.4	55.7	57.0	61.0
45 to 54	27.5	27.7	31.3	28.3	25.4
55 to 64	10.9	12.8	8.4	12.1	10.2
Race and ethnicity					
White	83.2	81.8	77.6	81.3	82.2
Black	8.4	7.4	11.7	8.1	8.5
Asian	3.2	5.1	2.8	5.4	1.7
Hispanic of any race	8.6	9.0	12.2	8.9	11.9
Education					
Less than high school	10.6	10.9	6.5	5.8	7.6
High school diploma	27.7	22.7	24.8	17.0	23.7
Some college or associate's degree	31.9	30.6	28.0	21.6	30.5
Bachelor's degree or more	29.9	35.8	41.1	55.5	38.1
Women					
Age					
16 to 24	6.3	7.6	6.5	6.4	3.4
25 to 44	61.8	60.2	64.0	60.3	65.3
45 to 54	25.3	25.3	25.2	26.4	23.7
55 to 64	6.5	7.1	4.2	6.9	7.6
Race and ethnicity					
White	83.3	82.7	77.1	80.7	79.7
Black	7.8	6.9	9.8	7.1	8.5
Asian	3.9	5.3	4.7	6.2	4.2
Hispanic of any race	8.7	9.1	10.7	9.8	10.2
Education					
Less than high school	7.8	9.6	5.6	6.2	7.6
High school diploma	27.1	27.3	22.9	16.2	26.3
Some college or associate's degree	34.8	30.2	34.1	28.3	26.3
Bachelor's degree or more	30.3	32.8	36.9	49.1	39.8

See footnotes at end of table.

Table 11. Percentage of dual-earner couples, by shared primary employer (38 states), and selected characteristics, in 2000

Characteristics	All dual-earner couples	Shared workplace	Not shared workplace and—		
			Shared firm	Shared NAICS industry (six digit)	Shared block
N (weighted, in millions)	15.3	1.6	0.2	0.5	0.1

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members had to report that they held a job in the last week. Both members had to be linked with Longitudinal Employer-Household Dynamics (LEHD) data for the 38 available states. Observations are weighted by the person weight of the primary respondent times 100. NAICS = North American Industry Classification System.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD administrative records.

As revealed from the LEHD administrative records, table 12 shows the frequency (in percentages) with which members of dual-earner couples, along with randomly matched nearby residents, shared similar employment characteristics. Similar to the Census 2000 results presented in table 6, results on shared narrow employment characteristics compared with the employment characteristics of real (the "Observed" column) couples are about an order of magnitude lower in the randomly matched data, without couples with similar demographic characteristics specifically selected. Randomly matched couples with similar demographic characteristics are twice as likely to have shared the same employer and more likely to have shared other narrowly defined characteristics, relative to randomly matched couples who do not share demographic characteristics. A 7-percentage to 9-percentage-point difference is shown between the real couples and the randomly matched counterfactual couples. This differential for sharing the same workplace accounts for all the excess location and industry agreement.

Table 12. Random assignment comparison (in percent) of workplace similarity for matched responses within a census block, LEHD data, in 2000

Employment outcome	Any other couple within residential block		Match within residential block, with similar demographic characteristics	
	Observed	Random	Observed	Random
Shared employer				
Same workplace	9.6	0.6	8.7	1.2
Same SEIN	10.5	1.0	9.7	1.8
Same FEIN	10.8	1.1	10.0	1.9
Same firm	11.1	1.1	10.1	2.1
Shared geography				
Same block	10.3	1.0	9.6	1.6
Same tract	13.1	3.1	13.0	4.1
Same county	49.0	39.9	48.6	40.6
Same state	95.7	91.1	95.4	94.8
Within 5 miles	29.6	19.2	29.6	20.3
Within 10 miles	44.0	34.0	44.3	35.9
Within 25 miles	66.2	58.5	66.4	61.3

See footnotes at end of table.

Table 12. Random assignment comparison (in percent) of workplace similarity for matched responses within a census block, LEHD data, in 2000

Employment outcome	Any other couple within residential block		Match within residential block, with similar demographic characteristics	
	Observed	Random	Observed	Random
Shared industry				
Same NAICS industry (six digit)	12.7	1.8	12.0	2.6
Same group	13.4	2.2	13.0	3.1
Same sector	21.0	9.3	19.7	10.6
Same supersector	23.9	12.6	22.6	13.9
N (weighted, in millions)	7.9	7.9	1.7	1.7

Notes: These calculations provide estimates of the characteristics of opposite-sex married and unmarried partner couples in the United States in 2000. The couples had to reside in the 50 states or the District of Columbia and not in group quarters. The age of both members had to be in the range from 16 to 64. Both members of the couple had to report that they held a job in the last week. Both members had to be linked with Longitudinal Employer-Household Dynamics (LEHD) data for the 38 available states. Standard Occupational Classification (SOC) and North American Industry Classification System (NAICS) aggregations are assigned with the use of crosswalks from responses coded to Census 2000 occupations and industries, respectively. Responses are weighted by the person weight of the primary respondent times 100. FEIN = federal employee identification number and SEIN = state employee identification number.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD administrative records.

Dynamics of coworking and coresidency

In this section, I use longitudinal residency data to assess the extent to which couples shared an employer because they became couples while coworking. Specifically, I use administrative records on household membership and employment for 1999 and 2001 to subdivide Census 2000 coworker and coresident couples into those who were or were not coworkers or coresidents in the preceding and subsequent years. Residency data come from the Composite Person Record.[24] If a couple did not coreside in 1999 but did in 2000 and if the two were coworkers in both 1999 and 2000, this evidence suggests that these coworkers were new coresidents—that is, those coworkers formed a household together. If couples became coworkers between 1999 and 2000, having previously been coresidents, this finding indicates that a previously existing couple moved to the same employer. This analysis tests the relative importance of different mechanisms that may lead to coworking couples. If coworking couples usually meet at work, then we would expect to see relatively few previously coresident couples.

Longitudinal data help us understand the dynamics of spouses as coworkers and coresidents. These data are less comprehensive than the datasets used earlier in the article. As mentioned earlier, administrative records on employment are only available for 38 states. Defining employment at the firm level, I avoid difficulties related to establishment imputation. In addition, less than 95 percent of Census 2000 long-form records can be linked to administrative records sources, and on the order of 70 percent have reliable residency data.

The results of this analysis are presented in table 13. Of those couples who coworked and coresided in 2000, 51.8 percent also coworked and coresided in 1999 and 2001. Of the remainder, the overwhelming majority were coresidents in either one or both years. Comparing 2000 with 1999 is useful in considering inflows into the coworking and coresidency status in 2000. Only 1.8 percent of couples who shared an employer in 2000 were coworkers in 1999 but were not in the same household. About 10 times as many couples (17.2 percent) who were

partners but not coworkers in the preceding year joined the same employer. This evidence shows that most coworking couples were previously existing couples who adopted the same employer. Comparing 2000 with 2001 is useful in considering outflows from coworking and coresidency status. Of these couples, 12.6 percent were coresiding in 2001 but not coworking, while 0.7 percent were coworking but not coresiding. Therefore, the outflows from being a coworking couple are even more skewed toward maintaining their status as partners than coworkers. In summary, the table shows that coworking couples' partnerships last longer than their jobs. Their partnerships usually precede and follow their coworking status.

Table 13. Workplace and residency dynamics (in percent) between coworker and coresident couples in 2000, with their administrative records data available in 1999 and 2001

1999 status	2001 status			
	Shared residence and employer	Shared residence only	Shared employer only	Shared neither residence nor employer
Shared residence and employer	51.8	12.6	0.7	0.2
Shared residence only	17.2	11.2	0.3	0.3
Shared employer only	1.8	0.9	0.1	0.0
Shared neither residence nor employer	1.3	1.4	0.1	0.1

Notes: Household-level calculations for a 1-percent sample of Census 2000 long-form responses of married and unmarried partner households in which both members of the couple were from the ages of 16 to 64 and both members reported that they held a job within the last week. Responses are weighted by the person weight of the primary respondent. Both members had to appear in the Composite Person Record (CPR) in both 1999 and 2001 and had to be employed by the same employer in the Longitudinal Employer-Household Dynamics (LEHD) in 2000 to be included in the tabulation. Responses are weighted by the person weight of the primary respondent times 100.

Source: Author's calculations based on Census 2000 long-form responses linked with LEHD and CPR administrative records.

Recent surveys have asked couples whether they met at work. Estimates from table 13 can be transformed in order to assess whether they are broadly consistent with the evidence Svarer and Kalmijn and Flap present for Denmark and the Netherlands, respectively.[25] Svarer considers a dataset that includes about 15 thousand couples in Denmark and reports that 5.0 percent of couples formed with coworkers at the same workplace and 7.0 percent formed at the same firm. He also provides reasons why these estimates are likely lower bounds. Using data for the Netherlands, Kalmijn and Flap report that 8.0 percent of partnerships worked for the same employer before forming the partnerships. From 1999 to 2001, as table 13 shows, the rate of inflow into coworking couples was about 3.5 percent (= 1.8 percent × 51.8 percent) of all coworking couples, or on the order of 0.4 percent (= 3.5 percent × 11.1 percent) of all dual-earner couples or 0.2 percent (= 0.4 percent × 57.7 percent) of all couples. A number of plausible outflow rates imply a steady state share of couples who met at work within a 5.0-percent to 8.0-percent range from the survey estimates just discussed. Overall, the transition rates in table 13 are broadly consistent with a sizable minority of couples meeting at work.

Conclusion

This article is the first systematic analysis of the extent to which couples work for the same employer. Coworking couples account for much of the shared employment characteristics of dual-earner couples. In the United States in 2000, about 13 percent worked in the same occupation (SOC major group), 21 percent to 26 percent in the same industry (NAICS supersector), and 50 percent to 68 percent in the same county, although results are somewhat sensitive to definitions, source data, and methodology. This article also is the first to systematically document the frequency with which dual-earner couples share an employer, finding that this frequency ranges from 11 to 13 percent. These shared employers account for most of the narrowly defined shared industry, occupation, and location responses to the Census 2000. The phenomenon of couples sharing an employer is mostly accounted for by previously formed couples sharing an employer rather than by couples forming at work.

These estimates have implications for the well-being of households. Those couples who work at the same workplace may be able to commute and spend more time together. However, sharing an employer affects the consumption insurance value of a partnership. Spouses who work at the same workplace may experience similar demand shocks, which can cause them to experience wage depression or layoffs at similar times. Shore and Ostrovsky find that couples' incomes often move together.[26] The fact that couples frequently share an employer likely explains some portion of this strong comovement between couples' incomes. Furthermore, the extent to which couples share the same high- or low-income employers has implications for household-level income inequality.[27]

These results also show that familial social networks are an important determinant of employment outcomes. This evidence complements recent evidence on intergenerational transmission of employers in studies by Corak and Piraino, Wang, Kramarz and Skans, and Stinson and Wignall.[28] These results are obtained despite the prevalence of antinepotism policies that restrict the ability of family members to be employed at the same firm.[29]

Finally, the frequency with which couples share an employer may have implications for the design of household surveys, such as the Current Population Survey, the American Community Survey, the Survey of Income and Program Participation, the Panel Study of Income Dynamics, and the National Longitudinal Survey of Youth. The accuracy of surveys may be increased by asking whether household members work for the same employer.

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NOTES

1 See, among many others, David Lam, "Marriage markets and assortative mating with household public goods: theoretical results and empirical implications," *Journal of Human Resources*, vol. 23, no. 4, 1988, pp. 462–487; and Matthijs Kalmijn, "Intermarriage and homogamy: causes, patterns, trends," *Annual Review of Sociology*, vol. 24, no. 1, 1998, pp. 395–421.

2 For example, see Michel Bozon and Francois Heran, "Finding a spouse: a survey of how French couples meet," *Population*, vol. 44, no. 1, 1989, pp. 91–121; Matthijs Kalmijn and Henk Flap, "Assortative meeting and mating: unintended consequences of organized settings for partner choices," *Social Forces*, vol. 79, no. 4, 2001, pp. 1,289–1,312; Terra McKinnish, "Sexually integrated workplaces and divorce: another form of on-the-job search," *Journal of Human Resources*, vol. 42, no. 2, 2007, pp. 331–352; and Michael Svarer,

"Working late: do workplace sex ratios affect partnership formation and dissolution?" *Journal of Human Resources*, vol. 42, no. 3, 2007, pp. 583–595. Bozon and Heran and Kalmijn and Flap provide evidence on couples meeting at work from retrospective surveys that asked couples how they met. McKinnish and Svarer estimate the relationship between workplace or occupational sex ratios (respectively) and divorce and marriage.

3 Phyllis Moen and Stephen Sweet, "Two careers, one employer: couples working for the same corporation," *Journal of Vocational Behavior*, vol. 61, no. 3, 2002, pp. 466–483; Phyllis Moen and Stephen Sweet, "Co-working as a career strategy: implications for the work and family lives of university employees," *Innovative Higher Education*, vol. 28, no. 4, 2004, pp. 255–272; Michelle Janning, "Put yourself in my work shoes: variations in work-related spousal support for professional married coworkers," *Journal of Family Issues*, vol. 27, no. 1, 2006, pp. 85–109; and Jonathon Halbesleben, "Spousal support and coping among married coworkers: merging the transaction stress and conservation of resources models," *International Journal of Stress Management*, vol. 17, no. 4, 2010, pp. 384–406.

4 Characteristics such as industry, occupation, and broad geography are available for tabulation in a variety of public-use microdata sources. For example, Shore and Sinai use such microdata to provide several straightforward tabulations of the frequencies that married couples share a highly specific industry or occupation. See Stephen Shore and Todd Sinai, "Commitment, risk, and consumption: do birds of a feather have bigger nests?" *Review of Economics and Statistics*, vol. 92, no. 2, 2010, pp. 408–424.

5 The proper name of the 22nd census of the United States is Census 2000.

6 Rosemary Batt and Monique Valcour, "Human resource practices as predictors of work-family outcomes and employee turnover," *Industrial Relations*, vol. 42, no. 2, 2003, pp. 189–220; Moen and Sweet, "Two careers, one employer"; and Moen and Sweet, "Co-working as a career strategy."

7 Research by Hyslop, Shore and Sinai, Shore in both 2010 and 2015, and Ostrovsky has shown that couples' incomes tend to move up or down together, despite that the second potential earner is a source of insurance as given in research by Lundberg, Hess, and Zhang. See Dean Hyslop, "Rising U.S. earnings inequality and family labor supply: the covariance structure of intrafamily earnings"; *American Economic Review*, vol. 91, no. 4, 2001, pp. 755–777; Shore and Sinai, "Commitment, risk, and consumption"; Stephen Shore, "For better, for worse: intrahousehold risk-sharing over the business cycle," *Review of Economics and Statistics*, vol. 92, no. 3, 2010, pp. 536–548; Stephen Shore, "The co-movement of couples' incomes," *Review of Economics of the Household*, vol. 13, no. 3, 2015, pp. 569–588; Yuri Ostrovsky, "The correlation of spouses' permanent and transitory earnings and family income inequality in Canada," *Labour Economics*, vol. 19, no. 5, 2012, pp. 756–758; Shelly Lundberg, "The added worker effect," *Journal of Labor Economics*, vol. 3, no. 1, part 1, 1985, pp. 11–37; Gregory Hess, "Marriage and consumption insurance: what's love got to do with it?" *Journal of Political Economy*, vol. 112, no. 2, 2004, pp. 290–318; and Sisi Zhang, "Wage shocks, household labor supply, and income instability," *Journal of Population Economics*, vol. 27, no. 3, 2014, pp. 767–796.

8 Hani Mansour and Terra McKinnish, "Same-occupations spouses: preferences or search costs?" *Journal of Population Economics*, vol. 31, no. 4, 2018, pp. 1,005–1,033.

9 Because the Census 2000 long form is itself a 1-in-6 sample, a 1-percent sample therefore is a 1-in-600 sample. It nevertheless contains more than 82,000 observations.

10 Note that as the empirical results presented in this article were prepared, I devoted a substantial amount of attention to the missing data issues that arose in each stage of estimation. For example, the Census 2000 microdata file has a substantial amount of missing subcounty work location information. A variety of issues also involve the use of administrative data, including the reliability of person, the completeness of residency information, the exact establishment of employment for those whose unemployment insurance accounts cover multiple worksites, and coverage issues involved in constructing national estimates from a partial (38-state) set of datasets. In addition, in certain cases, the results from different tabulation strategies are compared, for clarifying the robustness of the overall findings. Results that use the public-use microdata sample are weighted by the person weight of the primary respondent, and in the 1-percent sample, this weight is multiplied by 100.

11 With the self-reported place of work from the Census long form, I used the block centroids to measure the distance between places of work. Later in the article, to measure the distance between geocoded employer addresses rather than between block centroids, I used the Longitudinal Employer-Household Dynamics (LEHD) administrative data.

12 "Industry code crosswalk: 1990 Census, 1997 NAICS, and Census 2000," 2001a (U.S. Census Bureau, January 1, 2001), https://www2.census.gov/programs-surveys/demo/guidance/eeo/indcswk2k.pdf.

13 "Census 2000 occupational categories, with Standard Occupational Classification (SOC) equivalents," 2001b (U.S. Census Bureau, January 1, 2001), https://www2.census.gov/programs-surveys/demo/guidance/industry-occupation/occ2000t.pdf.

14 Shore and Sinai, "Commitment, risk, and consumption." Some definitional differences need to be noted. Shore and Sinai report industry and occupation according to the 1950 Census categories (rather than the 2000 Census categories used in this article) and have several rules for eliminating observations from their samples, including that both members must be age 25 or older.

15 Let m_i be the fraction of men in dual-earner couples who work in supersector and i and f_i be the analogous fraction of women. The randomly assigned shares are calculated as $(m_i f_i)/(\sum_j m_j f_j)$, and the number of so-defined hypothetical observations is $\sum_j m_j f_j$.

16 This exercise in table 6 is only done for a subset of records, and hence the sample size is lower than those done for the universe of couples. First, estimates do not include observations with any imputed geography of work. Geography of work is imputed in about one-fifth of households. Second, at least two dual-earner households with nonmissing place of work information must be in the same census block. There were more than 8.2 million census blocks in the Census 2000, or nearly one for every working-age opposite-sex couple in the long form. Census blocks are more likely to have at least two households that meet this restriction in urban areas rather than in rural areas. The microdata file was sorted by census block and a random number, and the first record of a census block served as a "donor" for the second, the second for the third, and so on. To avoid double counting a matched set of couples (blocks with exactly two couples are among the most common), I did not match the last couple to the first, so the number of included records is lower by the number of included census blocks.

17 Patrick Bayer, Stephen Ross, and Giorgio Topa, "Place of work and place of residence: informal hiring networks and labor market outcomes," *Journal of Political Economy*, vol. 116, no. 6, 2008, pp. 1,150–1,196; Judith Hellerstein, Mark Kutzbach, and David Neumark, "Do labor markets have an important spatial dimension?" *Journal of Urban Economics*, vol. 79(C), 2013, pp. 39–58; and Ian Schmutte, "Job referral networks and the determination of earnings in local labor markets," *Journal of Labor Economics*, vol. 33, no. 1, 2015, pp. 1–32.

18 Specifically, the locations include Alaska, California, Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Louisiana, Maryland, Maine, Michigan, Minnesota, Missouri, Montana, North Carolina, North Dakota, Nebraska, New Jersey, New Mexico, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Vermont, Washington, Wisconsin, and West Virginia.

19 Ron Jarmin and Javier Miranda, "The longitudinal business database," Working Paper 02–17 (U.S. Census Bureau: Center for Economic Studies, 2002); and John C. Haltiwanger, Henry R. Hyatt, Erika McEntarfer, Liliana Sousa, and Stephen R. Tibbets, "Firm age and size in the longitudinal employer-household dynamics data," Discussion Paper CES-14–16 (U.S. Census Bureau: Center for Economic Studies, 2014). Additional details about the LEHD data can be found in John M. Abowd, Bryce E. Stephens, Lars Vilhuber, Fredrik Andersson, Kevin L. McKinney, Marc Roemer, and Simon Woodcock, "The LEHD infrastructure files and the creation of the quarterly workforce Indicators," in *Producer Dynamics: New Evidence from Micro Data*, Timothy Dunne, J. Bradford Jensen, and Mark Roberts, eds. (Chicago: University of Chicago Press, 2009), pp. 150–230; and Kevin McKinney and Lars Vilhuber, "LEHD infrastructure files in the Census RDC: overview of s2004 snapshot," Discussion Paper CES-WP-11–13 (U.S. Census Bureau: Center for Economic Studies, 2011).

20 The workplace allocations in the standard Unit-to-Worker file used in many studies that employ LEHD microdata are not used in the main analysis because the imputation assignments allocate members of couples to establishments independently of each other. The use of this file naturally results in a lower estimate of the share of couples who work at the same establishment. For the couples who live in "in-scope" states and who are both in the LEHD data, 8.9 percent work in the same census block, 8.2 percent work at the same establishment, and only 36.0 percent work in the same county. Note that this imputation means that the estimates of shared

workplace and similar work location will be sensitive to the imputation method. Industry will also be sensitive to the workplace assignment methodology, but most multiunit employers have a similar industry, especially at the sector or supersector level. Estimates of shared employers at the unemployment insurance account (SEIN) or broader (FEIN and firm) level are by construction unaffected by establishment imputation; an establishment is always associated with one SEIN.

21 Batt and Valcour, "Human resource practices as predictors of work-family outcomes and employee turnover." The data description and sample selection are described on pp. 199–200. The result that 15 percent of couples in their sample worked for the same employer is from p. 204.

22 Moen and Sweet, "Two careers, one employer"; and Moen and Sweet, "Co-working as a career strategy."

23 The excess number of couples in each industry is calculated as the total share of observed couples minus $(m_j f_j)/(\sum_j m_j f_j)$.

24 James Farber and Charlene Leggieri, "Building and validating a National Administrative Records Database for the United States" (paper presented at the New Zealand Conference on Database Integration, 2002).

25 Svarer, "Working late: do workplace sex ratios affect partnership formation and dissolution?"; and Kalmijn and Flap, "Assortative meeting and mating: unintended consequences of organized settings for partner choices."

26 Shore, "For better, for worse: intrahousehold risk-sharing over the business cycle"; Shore, "The co-movement of couples' incomes"; and Ostrovsky, "The correlation of spouses' permanent and transitory earnings and family income inequality in Canada."

27 Assortative mating as relates to household-level income inequality is most often thought of with respect to education. For a recent treatment of this issue, see Jeremy Greenwood, Nezih Guner, Georgi Kocharkov, and Cezar Santos, "Marry your like: assortative mating and income inequality," *American Economic Review: Papers and Proceedings 2014*, vol. 104, no. 5, 2014, pp. 348–353.

28 Miles Corak and Patzirio Piraino, "The intergenerational transmission of employers," *Journal of Labor Economics*, vol. 29, no. 1, 2011, pp. 37–68; Shing-Yi Wang, "Marriage networks, nepotism, and labor market outcomes in China," *American Economic Journal: Applied Economics*, vol. 5, no. 3, 2013, pp. 91–112; Francis Kramarz and Oskar Skans, "When strong ties are strong: networks and youth labor market entry," *Review of Economic Studies*, vol. 81, no. 3, 2014, pp. 1,164–1,200; and Martha Stinson and Christopher Wignall, "Fathers, children, and the intergenerational transmission of employers," Working Paper 265 (U.S. Census Bureau: Survey of Income and Program Participation, 2014).

29 Randi Wolkenbreit argues that some employers may fail to adopt antinepotism policies out of a concern for profit maximization. For more information, see his study "In order to form a more perfect union: applying no-spouse rules to employees who meet at work," *Columbia Journal of Law and Social Problems*, vol. 31, no. 1, 1997, pp. 119–166.

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