

Worker Mobility in Production Networks

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Abstract

This paper documents that production networks play an essential role in the job search and matching process. We document five facts about worker mobility in production networks using employer-employee data matched with the universe of firm-to-firm transactions for the Dominican Republic: 1) workers move between buyers and suppliers almost twice as much as predicted by standard labor market characteristics, 2) movers between buyers and suppliers experience larger earnings increases than other movers, 3) incumbent workers earnings increase when their firm hires from its buyers or suppliers, 4) firm-to-firm trade increases following supply chain hires, and 5) hiring from buyers or suppliers is associated with stronger firm growth. Survey evidence points to supply chain-specific human capital and better information about job applicants as the main reasons for hiring within the supply chain. These results reveal a new channel through which factors affecting the supply chain, such as international outsourcing or contracting frictions, impact labor markets.

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1 Introduction

Search frictions in the labor market make it harder for workers to find good jobs (Haltiwanger, Hyatt, Kahn and McEntarfer, 2018), especially in developing economies (Donovan, Lu and Schoellman, 2023). The role of social networks, such as family or neighbors, in mitigating these frictions is well-documented (Topa, 2011). The role of firm production networks, in contrast, is largely unexplored. There are many reasons why buyer-supplier networks could matter for job-finding. Workers may be able to use business contacts to find job opportunities at buyers and suppliers, and may have skills and knowledge that are particularly valued within the supply chain.

This paper is the first to document the role of production networks as job-finding networks. Merging firm-to-firm transactions from the VAT registry with worker-level records from social security for the universe of formal firms in the Dominican Republic between 2012 and 2019, we construct a novel dataset tracking more than 1.2 million workers per year and 1.1 million job changes. We use this data to document *five novel facts* about worker mobility in the production network.

Fact 1: workers tend to move between buyers and suppliers. In our data, almost one-fifth of job-to-job transitions are to a buyer or supplier of a worker's original employer. We compare this to the share of job-to-job transitions to buyers and suppliers under counterfactuals in which worker moves are random. Standard worker and labor market characteristics, such as age, pre-move earnings, industry, location, and college degree, explain just over half of the observed mobility to buyers and suppliers in the data. This finding holds across industries, municipalities, and firm sizes, is similar for upstream and downstream moves, and is stronger for workers with higher earnings and tenure.

Fact 2: movers between buyers and suppliers experience larger earnings increases than other movers. We use an event-study specification to estimate the earnings dynamics of workers who move between buyers and suppliers relative to other movers. Workers moving between buyers and suppliers and those moving to other firms have similar pre-move trends in earnings, mitigating the concern that they are differentially selected based on pre-move trends in earnings. Controlling only for worker characteristics, we find that earnings are 6.7 percentage points higher after four years for movers to buyers or suppliers.¹ We re-estimate our specification including origin and destination firm-year fixed effects, which capture all firm-specific factors that impact workers' pre- and post-move earnings. We find that, of the 6.7 percentage points earnings gap four years after a move, 2.2 percentage points (one-third) is explained by an improvement in the worker-

¹For comparison, the earnings premium paid by multinational firms is estimated to be 7 percentage points in the US (Setzler and Tintelnot, 2021) and 9 percentage points in Costa Rica (Alfaro-Ureña, Manelici and Vasquez, 2021).

firm match component of earnings. We document that this supply chain premium is present only for high-wage workers and only when the buyer and supplier continue to trade after the worker moves.

Fact 3: the earnings of incumbent workers increase when their firm hires from its buyers or suppliers. We document the earnings dynamics of incumbent workers before and after a new coworker is hired from a buyer or supplier. In line with the literature on coworker spillovers (Jarosch, Oberfield and Rossi-Hansberg, 2021; Herkenhoff, Lise, Menzio and Phillips, 2022), we find that the hiring of higher-wage coworkers is associated with higher earnings for incumbent workers. Our new finding is that incumbent worker earnings increase by almost 2% over three years when a new coworker is hired from a buyer or supplier compared to when a new coworker is hired from an unconnected firm, controlling for the average earnings of new hires.

Fact 4: firm-to-firm trade increases following supply chain hires. We use an event-study specification at the buyer-supplier level to estimate the dynamics of firm-to-firm trade following worker moves between the two firms. This allows us to test whether firms' purchasing and supplying decisions are independent of their hiring choices. Our main specification includes both buyer-year and supplier-year fixed effects, which deal with the concern that rapidly growing firms may both purchase more inputs and hire more workers from their suppliers. We do not find any evidence of pre-trends in firm-to-firm sales prior to a worker moving between the firms. Following a worker move, however, we find that firm-to-firm trade increases by almost 20% after four years, relative to other buyer-supplier pairs.

Fact 5: hiring from buyers or suppliers is associated with stronger firm growth. We document a positive cross-sectional relationship between firm sales growth over one and three-year horizons and the share of their new hires that are from buyers and suppliers. This relationship holds controlling for past sales growth, for the number of buyers and suppliers, and for total employment at buyers and suppliers. We find similar results for employment growth.

To shed further light on why firms hire workers from their buyers and suppliers, we examine the answers to two questions on hiring practices included in a representative survey of 200 Dominican manufacturing firms in December 2022. Over one-third of respondents stated that experience at one of the firm's buyers or suppliers is either a "very important" or "the most important" factor when hiring skilled workers, similar to the share of responses for experience at a competitor or referrals. The survey evidence also shows that the most common reason for hiring from buyers or suppliers is "[...] specialized knowledge related to the firm's inputs and/or products", followed by "[...] received a referral for the worker" and "[...] good experience dealing with the worker while working for the previous employer". The survey results indicate that both supply-chain related

human capital (“specialized knowledge”) and information (via referrals and past interactions) are key drivers of worker mobility in the production network.

We consider a wide variety of robustness checks for the facts documented in the paper. We show that neither the tendency of workers to move within the production network nor the supply chain earnings premium are explained by the presence of ex-coworkers at buyers and suppliers or by buyer-supplier pairs belonging to the same business group. Furthermore, we run a placebo test using future buyers and suppliers—i.e. firms that were not suppliers or buyers in the year the worker moved but became part of the production network in the two years after the move. We find that workers are less likely to move to future than current buyers and suppliers, and do not earn a premium when they move to future buyers and suppliers. This alleviates the concern that unobservable factors explain our results. Our results are also robust to alternative empirical frameworks, such as estimating the earnings premium using the specification of [Abowd, Kramarz and Margolis \(1999\)](#) (hereafter AKM). Finally, while our results are limited to the Dominican Republic, we provide evidence that U.S. workers tend to move across more vertically integrated industries.

Job-finding through production networks may help explain some important macroeconomic patterns. A well-documented trend in recent decades is the dramatic increase in the globalization of supply chains ([Antras and Chor, 2021](#)). Our findings imply that, to the extent that this increase in foreign outsourcing led to fewer domestic supply linkages, it may have contributed to the declining labor market dynamism documented for the U.S. ([Davis and Haltiwanger, 2014](#)) and other advanced economies. Furthermore, contracting frictions are common in emerging market and developing economies, leading to sparser production networks ([Oberfield and Boehm, 2020](#); [Startz, 2021](#); [Boehm, 2022](#)). Our findings suggest that this sparseness exacerbates information frictions in developing country labor markets relative to advanced economies ([Donovan et al., 2023](#)). Policies that mitigate contracting frictions between firms—for instance by improving the court systems—could therefore ameliorate the functioning of the labor market. Our results also have implications for the debate regarding the use of ‘no poaching’ agreements ([Starr, Prescott and Bishara, 2021](#); [Krueger and Ashenfelter, 2022](#)). While this debate focuses on agreements that prevent workers from moving to competitors, there is growing evidence that they also occur within supply chains.²

Related literature The use of social networks and personal referrals to find jobs is widespread and is the focus of an extensive literature ([Topa, 2011](#)). We contribute to this literature

²See examples from Colombia ([Battiston, Espinosa and Liu, 2021](#)) and the U.S. (<https://www.thefashionlaw.com/saks-louis-vuitton-gucci-prada-and-more-named-in-new-lawsuit-over-alleged-no-poaching-pact/>). We thank Evan Starr for the pointer to the latter case.

by showing that *firm* networks also play an important role in job finding. This paper also contributes to the recent literature on labor market boundaries and outside options (Caldwell and Harmon, 2019; Nimczik, 2023) by showing that buyers and suppliers are an important dimension of workers' labor markets.

A rapidly expanding literature highlights the importance of domestic production networks for firm performance (Bernard, Moxnes and Saito, 2019; Alfaro-Ureña, Manelici and Vásquez, 2022; Bernard, Dhyne, Magerman, Manova and Moxnes, 2022; Dhyne, Kikkawa, Komatsu, Tintelnot and Mogstad, 2022) and in particular for workers. In this latter strand, Alfaro-Ureña et al. (2021) estimate the impact of multinationals on workers, Huneus, Kroft and Lim (2021b) and Adão, Carrillo, Costinot, Donaldson and Pomeranz (2022) combine employer-employee and production network data to analyze how production networks affect earnings inequality, and Demir, Fieler, Xu and Yang (2023) present evidence of assortative matching on worker wages between buyers and suppliers. Patault and Lenoir (2023) use French firm-to-firm trade and employer-employee data to examine how job-to-job transitions of sales managers lead to business stealing. Contributing to this literature, our paper is the first to document the importance of worker mobility between buyers and suppliers for workers' and firms' performance.

This paper also contributes to the literature on the importance of job-to-job transitions for wage growth and labor reallocation (Moscarini and Postel-Vinay, 2009, 2017; Haltiwanger et al., 2018; Bagger and Lentz, 2019; Albagli, Canales, Syverson, Tapia and Wlasiuk, 2020; Jarosch, 2021; Crane, Hyatt and Murray, 2022) and to the literature on the relevance of the fit between workers and jobs (Lachowska, Mas and Woodbury, 2020; Guvenen, Kuruscu, Tanaka and Wiczer, 2020; Lise and Postel-Vinay, 2020) by documenting the role of domestic production networks in these aspects.

The rest of the paper is structured as follows. Section 2 describes the data. Section 3 documents the five facts about worker mobility in production networks. Section 4 presents the survey-based evidence about firms' hiring practices. Section 5 presents a set of robustness tests and discusses the paper's limitations. Section 6 concludes.

2 Data

Our empirical setting is the Dominican Republic from 2012 to 2019. During this period the country experienced a period of sustained economic development and low and stable inflation. Real GDP growth averaged 5.6% per year—one of the fastest in Latin America—and average inflation was 2.8%, generally remaining within the central bank's target band.

In this paper we combine multiple datasets of anonymized administrative records.³

³section A2 reports additional details on the data sources and data collection.

The first dataset reports firm-level information for the universe of firms that file income taxes (i.e., assets, liabilities, revenue, expenditures, and the wage bill) and is compiled by the Directorate General of Internal Taxes. Moreover, the dataset includes the ownership structure of each firm, the ISIC 3 industry, and the municipality where firms are headquartered. The second dataset includes firm-to-firm transactions from the VAT registry, which allow us to identify each firm's domestic buyers and suppliers. The third dataset has wage and demographic information on employees from the Social Security Treasury. Each month employers report payments to employees (including bonuses, overtime work, etc.) to calculate social security contributions and withholding taxes. We observe the wage data at annual frequency, where the value reported is the average worker earnings for the months in which the employee had social security obligations. Employees are classified as permanent or temporary based on whether they have social security obligations. In the analysis, we restrict the sample to firms in the private formal sector that make at least one transaction per year and have at least one permanent employee.⁴

We observe over 44,000 firms per year. The median firm employs seven workers and has an annual turnover of almost 30,000 USD, which grew at a rate of 8.9% per year. On average, firms employ more than 1.2 million workers, which represent 26.1% of the country's labor force.⁵ The median worker's wage is 3,120 USD, which grew at an average annual rate of 5.6% over the period covered by the sample. The firm-to-firm transaction dataset includes almost 2.5 million transactions per year, of which about one-fourth occurs between firms of the same industry. The median firm, on average, has eight buyers and 28 suppliers.⁶ A limitation of the dataset is that it does not cover the large informal economy of the Dominican Republic, which is typical for countries at this stage of development.

In addition to the previously described administrative data sources, we collaborated with the Central Bank of the Dominican Republic to incorporate questions about firms' hiring practices into the Business Opinion Survey of December 2022. The survey is run quarterly and targets 200 firms representative of the manufacturing sector to elicit their inflation expectations, among other indicators.

⁴We also apply some light data cleaning criteria to rule out likely erroneous records. These include dropping firms with annual sales below 10,000 Dominican pesos or a wagebill or purchases below 1,000 Dominican pesos (less than 200 US dollars and 20 US dollars at the 2019 exchange rate, respectively).

⁵According to the 2023 National Labor Force Survey, about 43% of the workforce was part of the formal sector and 70% of these employees worked in the private sector in 2022. Thus, the formal private sector accounted for 30% of the country's labor force, close to the 26% average we observe in our sample. The remaining difference is due to temporary contracts and formal self-employment.

⁶Many characteristics of the Dominican Republic's domestic production network are comparable to those of other emerging markets such as Chile and Costa Rica, as documented in [section A1](#).

Measuring worker mobility We define a ‘mover’ as any worker whose highest-paying employer in year t is different from their highest-paying employer in year $t - 1$.⁷ We observe 1,152,279 worker moves between 2012 and 2019, implying that on average 13% of workers change employer from one year to the next. Movers tend to be younger and earn less, and are more likely to be male than non-movers.

We alternatively consider the subset of ‘within-year movers’. We define a within-year mover in year t as a worker whose primary employer changed from year $t - 1$ to $t + 1$, with the worker receiving positive earnings from both firms in year t . The advantage of this definition is that it limits the duration of potential unemployment spells—or spells of work outside the formal sector—between jobs to at most ten months. This is useful as we do not have information on the reason for which workers stop working at a firm and extended unemployment spells can have a scarring effect on worker labor market outcomes. Under this definition, we observe 272,935 moves between 2012 and 2019.⁸

3 Five facts on worker mobility in production networks

3.1 Fact 1: workers tend to move between buyers and suppliers

Almost one-fifth of the workers who changed employer between 2012 and 2019 were hired by a buyer or supplier of their previous employer. The two network graphs in [Figure 1](#) illustrate this pattern for a sub-sample of employers. In the left panel, we show the number of worker movements (blue edges) between 1,000 random firms (black nodes, scaled by total firm employment). In the right panel, we randomly draw 500 firms and for each of these we draw one of their buyers or suppliers at random, thereby oversampling firms with supply linkages. A striking pattern emerges: worker movements are considerably more frequent between buyers and suppliers than between firms drawn randomly.

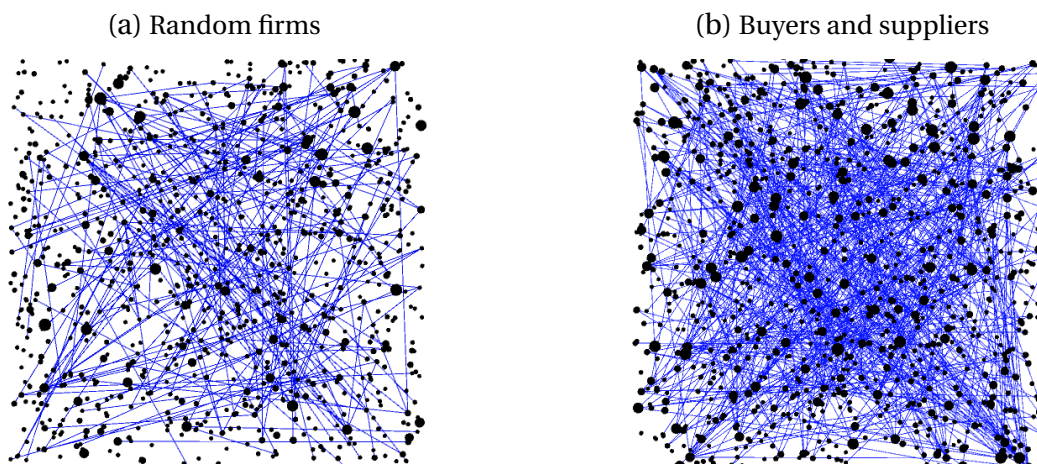
Given that buyers and suppliers account for less than 0.1% of firm pairs in the economy, it is remarkable that 18.4% of worker moves happen between them.⁹ However, since larger firms have more buyers and suppliers, the typical buyer or supplier tends to be

⁷This definition of a mover is consistent with annual data and the fact that we do not observe the start and end date of workers’ jobs. 10% of workers in our database report income from multiple firms within the same year. Thus, we focus on the highest-paying employer (or main job), which is standard in the literature ([Card, Heining and Kline, 2013](#)). The results of the paper are robust to restricting the sample to workers with only one employer each year.

⁸Note that, under this alternative definition, a worker who leaves his employer in December and joins a new employer in January is not counted as a ‘within-year’ move. Also, a worker who changes jobs once a year for two consecutive years is dropped, as well as any worker moving at the end of our sample.

⁹As a benchmark, 43% of workers move to a firm within the same 2-digit industry, of which there are 42. The intra-industry share of movers we find for the Dominican Republic is similar to the one in [Bjelland, Fallick, Haltiwanger and McEntarfer \(2011\)](#) for U.S. NAICS super-sectors (i.e., 40%).

Figure 1: Worker flows between firms



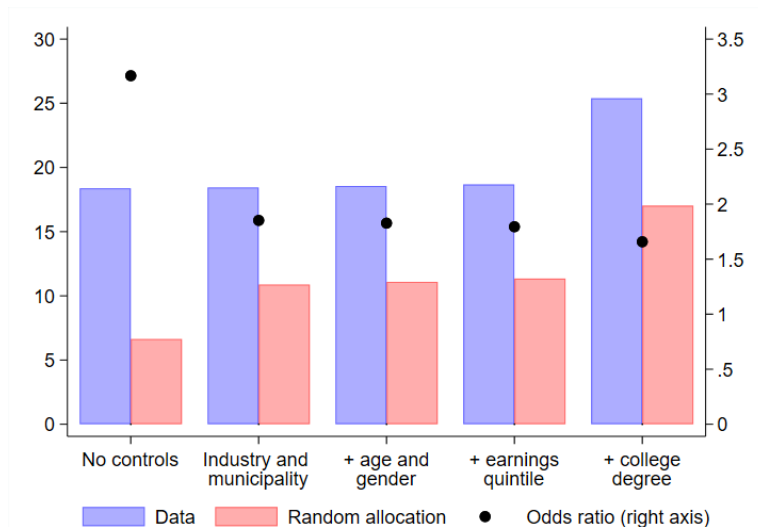
Notes: The nodes denote firms, with their size proportional to the number of employees. Blue edges indicate that at least one worker is moving between the two firms. Panel (a) uses a sample of 1,000 randomly selected firms in 2019. Panel (b) uses a sample of firm pairs in 2019 that traded in 2018 and account for 1,000 unique firms. Both samples use firms with a number of employees ranging between 21 and 500. [Figure A12](#) additionally shows the edges connecting buyers and suppliers.

larger than the typical firm. Therefore, buyers and suppliers are expected to account for a disproportionate share of worker flows. Moreover, the association between production networks and worker flows could be due to other factors. For example, the overlap between employees' labor markets and firms' product markets could result from supply chains being co-located and workers searching for jobs locally.

We therefore examine if workers tend to move between buyers and suppliers even after taking into account other factors that could explain this pattern. We construct the share of worker moves to buyers and suppliers under a counterfactual random allocation of workers to firms that are likely to be part of their labor market ([Glitz and Vejlin, 2021](#); [Bernard and Zi, 2022](#)). We first define a firm as having N job openings if it hires N workers from other firms. We then randomly assign workers to job openings and measure the share of workers who move to buyers and suppliers. We repeat this randomization procedure 100 times and construct the average share of moves to buyers and suppliers across draws. By allocating workers to job openings rather than firms, this approach accounts for the fact that larger firms both have more buyers and suppliers and tend to hire more workers. [Figure 2](#) compares the share of workers allocated to buyers and suppliers in the random allocation to the share in the data, along with the corresponding odds ratios.¹⁰

¹⁰Bootstrapped standard errors are negligibly small and thus unreported. With a sufficiently large number of conditioning variables, every worker would be assigned to the firm they actually moved to. To avoid mechanical overfitting, we restrict the sample of movers to those with a potential labor market of at least 50 job openings. The total sample size, therefore, shrinks as conditioning variables are added. Our results are not sensitive to using alternative values for the minimum number of job openings.

Figure 2: Share of workers moving to buyers or suppliers vs. random allocation (Percent)



Notes: The blue bars denote the shares of movers to buyers or suppliers in the data, the red bars denote the same shares obtained from randomly allocating workers to firms controlling for different factors, and the black dots show the corresponding odds ratio. The first random allocation exercise shows results where movers are randomly allocated to any job opening (1,152,279 movers). The second exercise restricts the random allocation to job openings filled by workers from the same origin municipality and industry (1,143,023 movers). The third exercise additionally restricts the random allocation to job openings filled by workers in the same age quintile and of the same gender (1,111,083 movers). The fourth exercise additionally restricts the random allocation to job openings filled by workers in the same pre-move earnings quintile (1,019,242 movers). Finally, the fifth exercise additionally restricts the random allocation to job openings filled by workers with the same university degree (17,091 movers).

The first set of bars shows that, without any controls, we would expect 6.7% of workers to move between buyers and suppliers if moving randomly, just over one third of what we observe in the data. The corresponding odds ratio is 3.2. We then assign movers only to job openings filled by workers from the same origin municipality and industry. Consequently, the random share incorporates the likelihood that workers search for jobs locally and that suppliers and buyers tend to be co-located. We find that the random share increases to 10.9%, with a corresponding odds ratio of 1.9, still well above 1. We then additionally restrict movers to be randomly allocated to job openings filled by workers in the same age group, of the same gender, and in the same pre-move earnings quintile. This increases the random share only slightly to 11.4%, with the odds ratio remaining stable at 1.8. Lastly, we also restrict movers to be randomly allocated to job openings filled by workers with the same university degree.¹¹ While the share of workers moving between buyers and suppliers increases both in the random allocation and in the data, the odds ratio declines only marginally to 1.7. These results alleviate the concern that workers

¹¹Our data covers 66 degrees, which include industrial engineering, civil engineering, medicine, pharmacy, marketing, economics and finance, and others. The sample size shrinks considerably because the data on university education is limited to workers who graduated after 2007 (see Appendix A2).

only move between buyers and suppliers because of occupational similarities, insofar as university degree is a strong predictor of occupation.

In Appendix [Table A7](#), we show that the tendency to move between buyers and suppliers holds for workers in all industries, for workers changing or staying in the same industry or municipality, for men and women, for white and non-white workers, and for workers in all age groups. Workers are no more likely to move to buyers than to suppliers, but are relatively more likely to move to their employers' top buyers and suppliers.

The ways in which workers find jobs vary considerably according to their skills and education ([Lester, Rivers and Topa, 2021](#); [Carrillo-Tudela, Kaas and Lochner, 2022](#)). [Figure 3](#) documents heterogeneity in the likelihood that workers move between buyers and suppliers along two dimensions of human capital: pre-move earnings and tenure at the original employer. The share of movers between buyers and suppliers increases from 10% to 27.5% between the bottom and top earnings quintile, with the corresponding odds ratios going from 1.8 to 2.1. Similarly, the share of movers between buyers and suppliers increases from 15.1% for workers with under two years of tenure to 29.2% for workers with at least six years of tenure, with the corresponding odds ratio rising from 1.7 to 2.¹² In summary, the production network plays a greater role in facilitating job finding for high-skilled workers.

3.2 Fact 2: movers between buyers and suppliers experience larger earnings increases than other movers

Job-to-job movers tend to see higher earnings increases than job stayers ([Hahn, Hyatt, Janicki and Tibbets, 2017](#); [Moscarini and Postel-Vinay, 2017](#)). This is also true in the Dominican Republic, as shown in [Figure 4](#) which plots median earnings growth between $t - 1$ and $t + 1$ by earnings quintile separately for stayers and movers. Strikingly, the figure also shows that movers between buyers and suppliers tend to have higher earnings growth than other movers.

Movers between buyers and suppliers have different characteristics than other movers ([subsection 3.1](#)), and may be moving to different types of firms. To control for these factors, we estimate the differences between their respective earnings dynamics using the following event-study specification:

$$E_{i,o,d,t+k} = \alpha^k + \delta^k X_{i,t-1} + \beta^k SB_{o,d,t-1} + \phi_{o,t}^k + \phi_{d,t}^k + \gamma^k X_{o,d} + \eta_{i,d,o,t,k} \quad (1)$$

where i is a worker who moves from origin firm o to destination firm d in year t ; $E_{i,o,d,t+k}$

¹²Furthermore, [Table A7](#) reports that workers with tertiary degrees are relatively more likely to move to buyers and suppliers than workers without a college degree.

Figure 3: Heterogeneity in the share of movers to buyers and suppliers
(Percent)



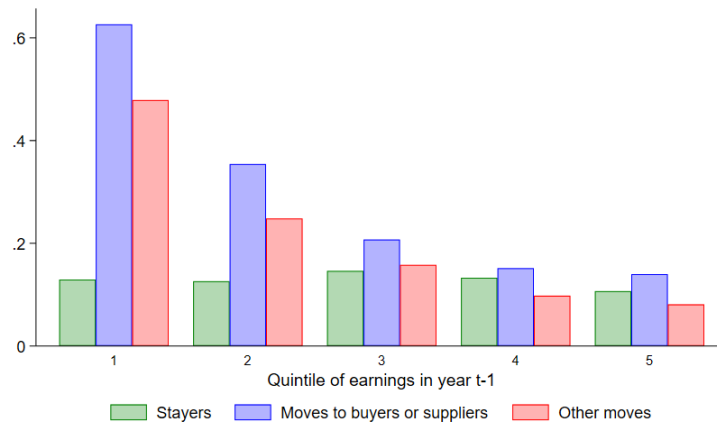
Notes: The left panel shows the share of movers to buyers or suppliers (blue bars) along with the random allocation share (red bars), by pre-move earnings group; the black dots show the odds ratio. The right panel shows the same series by tenure at the origin firm. To accurately measure tenure, the sample is restricted to workers that moved between 2018 and 2019 so that worker tenure at the origin firm can be identified for up to seven years.

is the (log) of average monthly earnings paid by i 's main employer in year $t + k$; $SB_{o,d,t-1}$ is a dummy variable which equals one if firm o was a buyer or supplier of firm d in period $t - 1$, and zero otherwise; $X_{i,t-1}$ is a set of worker-level controls which include the log of earnings in the year before the move, age deciles, and gender; and $X_{o,d}$ is a set of origin-destination firm-level controls to allow for different earnings dynamics depending on the joint characteristics of the two firms. These controls include fixed effects for the interaction of origin and destination firm size quintiles, municipalities, and industries, and for whether the two firms belong to the same business group.¹³ We estimate the specification both including and excluding origin firm-year and destination firm-year fixed effects.

Since we are interested in earnings dynamics following job-to-job transitions, we restrict the sample to within-year movers (29% of which are to buyers or suppliers), which has the advantage of minimizing the duration of possible unemployment spells (see [section 2](#)). The sample includes workers that move in any year between 2012 and 2019. We estimate [Equation 1](#) separately for each horizon $k = -3, \dots, 4$ to test both for differences in pre-trends and to capture the persistence of the earnings differential following a move. This allows us to test whether workers who move along the supply chain are differentially

¹³We define two firms as being in the same business group if either (a) one firm is a top 10 shareholder of the other or (b) they have at least one of their top 10 shareholders in common. We also check that results are robust to defining two firms as being in the same business group if we observe more than 20 moves between them in a year.

Figure 4: Earnings growth of stayers and movers
(Earnings growth from year $t - 1$ to $t + 1$)



Notes: The figure reports the median earnings growth between year $t - 1$ and $t + 1$ for workers who stay at the same firms (green bars), for within-year movers to a buyer or supplier of their previous employer (blue bars), for within-year movers to other firms (red bars), by earnings quintile in year $t - 1$.

selected based on pre-move trends in (or shocks to) earnings.¹⁴

The left panel of [Figure 5](#) plots the earnings dynamics of supply chain movers relative to other movers controlling for worker characteristics but *excluding* firm fixed effects and firm-pair covariates. The results show that the earnings of workers moving between buyers and suppliers behave similarly to those of other movers up until the move, and that a large earnings gap opens up after the move. Supply chain movers have 7.7 pp higher earnings the year after the move than other movers, gradually declining to 6.7 pp four years after the move (see [Table A8](#) for the regression results). This earnings gap could be due to supply chain movers sorting into higher-earnings firms and/or an increase in the match specific component of earnings.

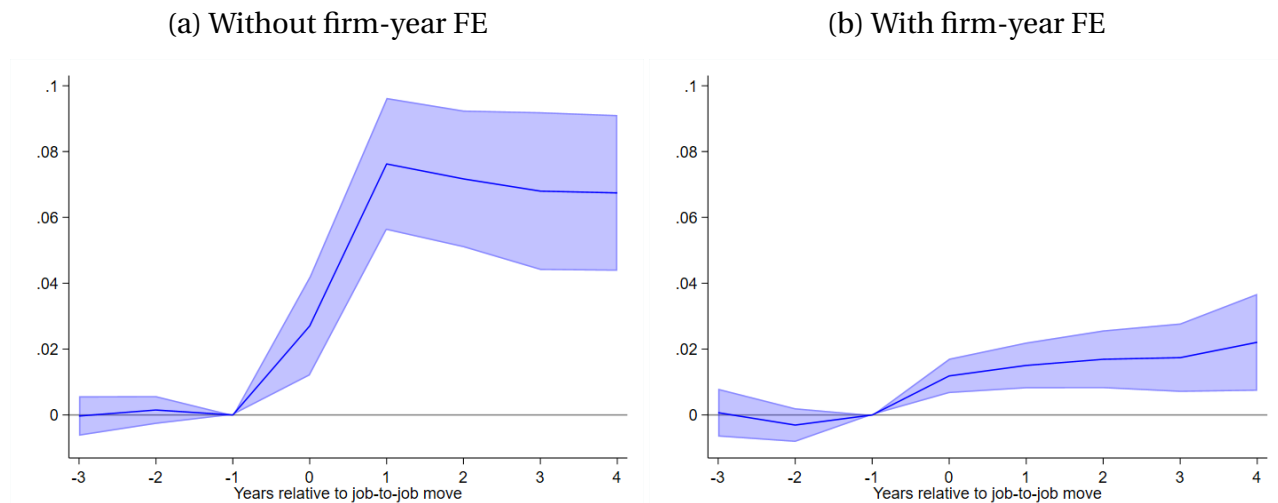
We then control for sorting by including origin and destination firm-year fixed effects and firm-pair controls in the right panel of [Figure 5](#) (we report the regression results in [Table A9](#)). These fixed effects allow us to isolate the change in the match-specific component of worker earnings for buyer-supplier movers relative to other movers.¹⁵ The results

¹⁴This specification has the benefit of simplicity and flexibility regarding controls. It is also analogous to the local projection approach to difference-in-differences of [Dube, Girardi, Jorda and Taylor \(2023\)](#), which is robust to the econometric problems associated with the OLS estimation of two-way fixed effects highlighted by [Goodman-Bacon \(2021\)](#) and [Callaway and Sant’Anna \(2021\)](#). [Dube et al. \(2023\)](#) also exclude from the control group workers who are treated in period $t > 0$. We show in [Figure A13](#) that results are robust to imposing this restriction.

¹⁵The firm-year fixed effects also allow for the firm component of earnings to depend on whether a worker is joining or leaving the firm, as well as when the worker joined or left the firm. This empirical specification is therefore more flexible than the classical AKM decomposition ([Abowd et al., 1999](#)).

in the right panel of [Figure 5](#) continue to show no evidence of differential pre-trends. The earnings premium for supply chain movers is 1.5 pp one year after the move, rising to 2.2 pp by the fourth year after the move. Of the 6.7 pp earnings gap four years after a move estimated in the left panel, 4.5 pp (two-thirds) is explained by supply chain movers sorting into higher-earnings firms and 2.2 pp (one-third) is explained by an improvement in the match-specific component of earnings, which we label the ‘supply chain earnings premium’.

Figure 5: Earnings dynamics of movers, with controls
(Relative earnings of movers to buyers or suppliers)



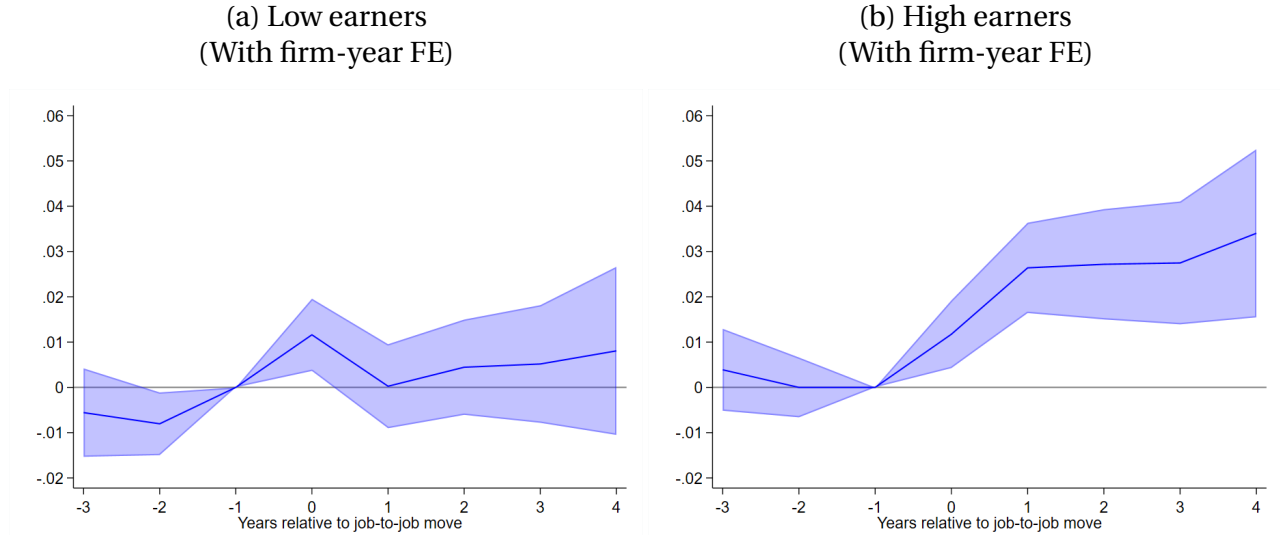
Notes: The figure plots the coefficients β from [Equation 1](#), along with the 95% confidence interval. Panel (a) includes year fixed effects and fixed effects for worker age deciles and gender, and a dummy for whether the origin and destination firm have any common ownership. Panel (b) additionally includes origin firm-year and destination firm-year fixed effects, as well as fixed effects for the interactions of origin and destination firm municipality, industry, and employment quintile. Standard errors are double clustered at the origin and destination firm level. The regression results are in [Table A8](#) and [Table A9](#).

We examine the heterogeneous earnings dynamics of supply chain movers with respect to their pre-move earnings. We amend [Equation 1](#) by interacting the variable identifying supply chain movers, SB , with a dummy variable for whether movers’ earnings are above or below the median earnings of movers in the year before the move. As shown in [Figure 6](#), we find a large earnings premium for high-earnings workers moving along the supply chain, reaching 2.6 pp one year after the move and 3.3 pp four years after the move. This is substantially higher than the estimate for the full sample of supply chain movers. On the other hand, we find a small and statistically insignificant earnings premium for low-earnings workers.¹⁶ Finally, in another exercise ([section A5](#)), we find

¹⁶We find quantitatively similar results when we run the regression in [Equation 1](#) separately for workers with above and below median earnings.

that workers moving along the supply chain not only benefit from an earnings premium, but also from lower separation rates with the new employer (and thus longer employer-employee match duration).

Figure 6: Earnings dynamics of movers by pre-move earnings
(Relative earnings of movers to buyers or suppliers)



Notes: The figure plots the coefficients from a version of Equation 1 that allows for earnings heterogeneity, along with the 95% confidence intervals. The panels include year fixed effects and fixed effects for worker age deciles and gender, and a dummy for whether the origin and destination firm have any common ownership, origin firm-year and destination firm-year fixed effects, as well as fixed effects for the interactions of origin and destination firm municipality, industry, and employment quintile. Standard errors are double clustered at the origin and destination firm level.

3.3 Fact 3: incumbent workers earnings increase when their firm hires from its buyers or suppliers

Incumbent workers may experience a change in earnings when a new coworker is hired from a buyer or supplier for various reasons, such as peer effects within the firm (Cornelissen, Dustmann and Schönberg, 2017; Jarosch et al., 2021; Herkenhoff et al., 2022) or through rent-sharing if firms that hire from their buyers and suppliers tend to perform better. We examine whether having a new coworker from a buyer or supplier is associated with future earnings gains by estimating the following specification, akin to that from Section 3.2:

$$E_{i,d,t+k} = \alpha^k + \rho^k \cdot E_{i,t-1} + \phi^k \cdot \bar{E}_{-i,t} + \delta^k H_{d,t} + \beta^k SB_{d,t} + \gamma^k X_{i,t} + \omega^k X_{d,t} + \varepsilon_{i,d,t,k} \quad (2)$$

where $E_{i,d,t+k}$ is the (log) average monthly earnings of worker i in firm d at time $t + k$, with $-3 \leq k \leq 3$. $H_{d,t}$ is a dummy variable that takes value one if firm d hired a worker

between period $t - 1$ and t from another firm, and zero otherwise; and $SB_{d,t}$ is a dummy variable that takes value one if firm d hired a worker from any of its buyers or suppliers between period $t - 1$ and t , and zero otherwise. We control for the log of worker earnings in period $t - 1$, age deciles, and gender. Because rapidly growing firms may both be more likely to experience higher earnings growth and hire from buyers or suppliers, we control for employment and sales growth from $t - 1$ to t . We also control for firm employment in period $t - 1$ because small firms tend to have higher growth rates. Given the findings from Jarosch et al. (2021) and Herkenhoff et al. (2022), we control for the average earnings of worker i 's coworkers in period $t - 1$. Finally, we include industry-municipality-year fixed effects. We cluster standard errors at the firm level. The sample is restricted to workers i who are at the same firm d in every year from $t + k$ to $t + 1$ for $-3 \leq k \leq 0$, and $t - 1$ to $t + k$ for $1 \leq k \leq 3$. We restrict the sample to firms with at most 100 workers in all years. This restriction helps to identify workers more likely to interact with new hires.

Figure 7a presents the coefficients on the hiring from a buyer-supplier dummy β^k , along with 95% confidence intervals (see also Table A10). Workers' earnings increase by 1.1% in the year their firm hires from its buyers or suppliers. Earnings continue to grow in the following years, by an additional 0.4% after 1 year and an additional 1% after 3 years. Given that we documented in subsection 3.2 that high-earnings workers are more likely to move along the supply chain, Figure 7b restricts the sample to firms that are hiring at least one worker from another firm in period t and adds a control for the average salary of the firm's new hires.¹⁷ Including these controls does not change the estimated higher earnings associated with being in a firm that hired a worker from a buyer or supplier.

3.4 Fact 4: firm-to-firm trade increases following supply chain hires

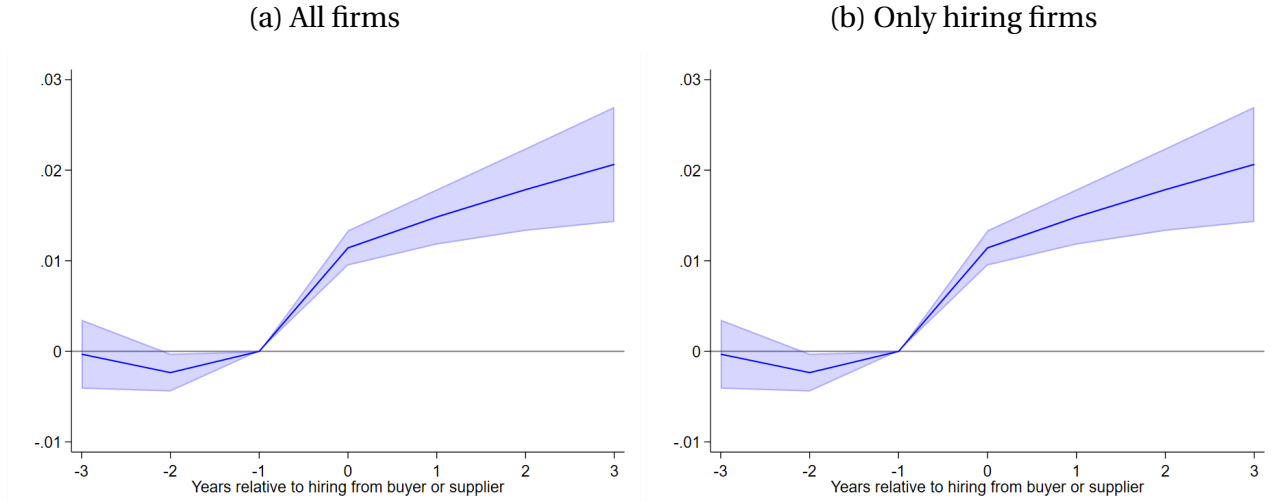
We examine the dynamics of sales between buyers and suppliers around workers moves. To do so, we estimate an event-study specification similar to the one adopted in subsection 3.2:

$$y_{b,s,t+k} = \phi_{b,t,k} + \phi_{s,t,k} + \beta_k FM_{b,s,t} + \varepsilon_{b,s,t,k} \quad (3)$$

where buyer b and supplier s are two firms trading in $t - 1$, $y_{b,s,t+k}$ is the log of sales between b and s in year $t + k$, and $FM_{b,s,t}$ is a dummy equal to one if in year t we observe a worker moving between b and s for the first time. $\phi_{b,t,k}$ and $\phi_{s,t,k}$ are buyer-year and supplier-year fixed effects for each horizon k , which capture any firm-level time-varying shocks. As in Equation 1, we estimate the equation for each horizon $k = -3, \dots, 4$. Thus, the

¹⁷See also Table A11, which shows that, consistent with the literature, workers at firms whose new hires have higher earnings tend to experience higher future earnings growth.

Figure 7: Earnings dynamics of new coworkers of supply chain movers
(Earnings of coworkers)



Notes: The figure plots the coefficients β^k from Equation 2, along with the 95% confidence interval. Panel (a) is based on a sample of workers who are at the same firm in every year from $t + k$ to $t + 1$ for $-3 \leq k \leq 0$, and $t - 1$ to $t + k$ for $1 \leq k \leq 3$. Additionally, we restrict the sample to workers in firms with at most 100 workers in all years. The specification includes worker-level controls (earnings in period $t - 1$, age deciles, gender, and the average earnings of coworkers in period $t - 1$), firm-level controls (employment and sales growth from $t - 1$ to t , and employment in period $t - 1$), and industry \times municipality \times year fixed effects. Panel (b) is based on a sample of workers in firms that hired from another firm between years $t - 1$ and t . The specification also controls for the average earnings of the new workers hired by the firm between year $t - 1$ and t . The regression results are in Table A10 and Table A11.

parameters β_k trace the sales dynamics between suppliers and buyers for pairs that hire from each other in year t .

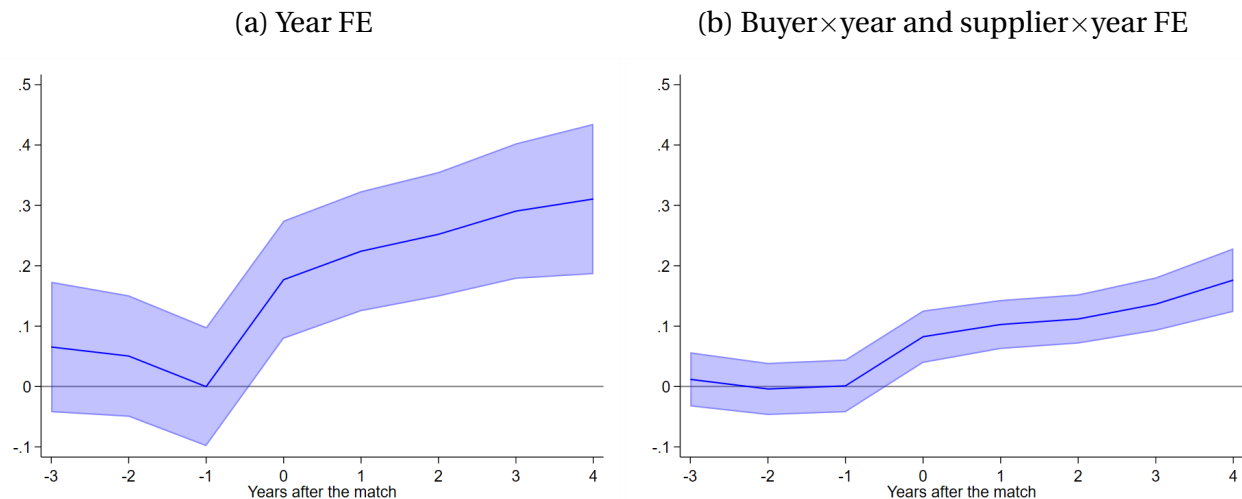
The challenge with identifying the relationship between firm-to-firm sales dynamics and worker movements is that the likelihood that workers move between buyers and suppliers depends on the strength of the firm-to-firm sales (subsection 3.1), and firms that hire from their buyers or suppliers tend to experience higher subsequent sales growth (Fact 5). We therefore choose the control group from a comparison pool of firm-pairs with similar characteristics to treated firms, and using a matching procedure following Azoulay, Graff Zivin and Wang (2010) and Jäger and Heining (2022).

To construct the estimation sample, we first restrict our attention to firm-pairs that traded in $t - 1$ and with no common ownership at any point between 2012 and 2019. We then define an event as the first time we see one or more workers moving between the buyer and supplier forming the firm-pair. We drop observations such that $t \leq 2014$ so that our event definition more accurately captures first-time moves. The treatment group consists of firm-pairs experiencing an event in period t . We use a matching procedure to select comparable firm-pairs for the control group. The pool of firm-pairs forming the control group satisfies the additional restrictions that 1) the firm-pair never experienced an event during the sample period, and 2) both firms in the firm-pair experienced an event with one of their buyers or suppliers in period t . The first restriction ensures that

firm-pairs in the control group are not treated in a later or earlier period (Dube et al., 2023), while the second ensures that firms in the control group are similarly selected to firms in the treatment group. For each treatment firm pair, we then select one firm pair from the comparison group pool with similar firm-to-firm sales in $t - 1$. This latter restriction ensures that the distribution of firm-to-firm sales for the treatment and control groups are similar. We provide more details on our approach in Appendix A3.

Figure 8 presents the results (see also Table A13). Buyer-supplier pairs with no worker move in year t display similar pre-event trends.¹⁸ Following a worker move, the sales from the supplier to the buyer increase substantially. Sales are approximately 30% higher with respect to the control group after four years. The inclusion of buyer-year and supplier-year fixed effects reduces the estimate to close to 20%. Appendix A3 documents that these findings are similar for both upstream and downstream worker moves.

Figure 8: Firm-to-firm trade and worker moves
(Log of firm-to-firm sales)



Notes: The figure plots the coefficients β^k from Equation 3 along with 95% confidence intervals. Firms in the control group—a subset of the firm pairs that do not experience any worker move between them—are selected according to a coarsened exact matching so that the distribution of sales in year $t - 1$ is the same for the control and treated group (see section A3). The left panel shows the results from the specification including only year fixed effects, while the right panel shows the results including buyer \times year and supplier \times year fixed effects. Standard errors are double clustered at the buyer and supplier level. Firm pairs are also excluded if either there is ever common ownership during the sample period or if there is a worker movement observed before 2015.

¹⁸While the matching procedure mechanically results in similar trade in $t - 1$, it does not affect earlier years.

3.5 Fact 5: hiring from buyers and suppliers is associated with stronger firm growth

Fact 4 shows that bilateral firm-to-firm trade relationships strengthen following worker moves. However, this result does not directly connect hiring from buyers and suppliers to firm growth as firm-to-firm sales (purchases) could increase despite flat total sales (purchases) if other buyers (suppliers) get crowded out.

We therefore compare the performance of firms that hire from buyers or suppliers to that of firms that do not. [Figure 9](#) plots the share of new hires coming from buyers and suppliers against firm-level sales growth over the following one (panel a) and three (panel b) years (see also [Table A14](#)). Firms with more buyers and suppliers tend to have higher growth rates ([Bernard et al., 2022](#)) and will mechanically be more likely to hire from their buyers and suppliers. To account for this, we control for the (log) number of buyers and suppliers and for (log) total employment at buyers and suppliers. We also control for current and lagged (log) sales, as well as industry-municipality-year fixed effects. [Figure 9](#) shows that firms hiring relatively more along the supply chain have higher average future sales growth, both over the short and medium term. In particular, firms at the top versus bottom 5% of the distribution of three-year sales growth hire a 2 pp higher share of workers along the supply chain.¹⁹ We find similar results for employment growth instead of sales growth ([Table A14](#)).

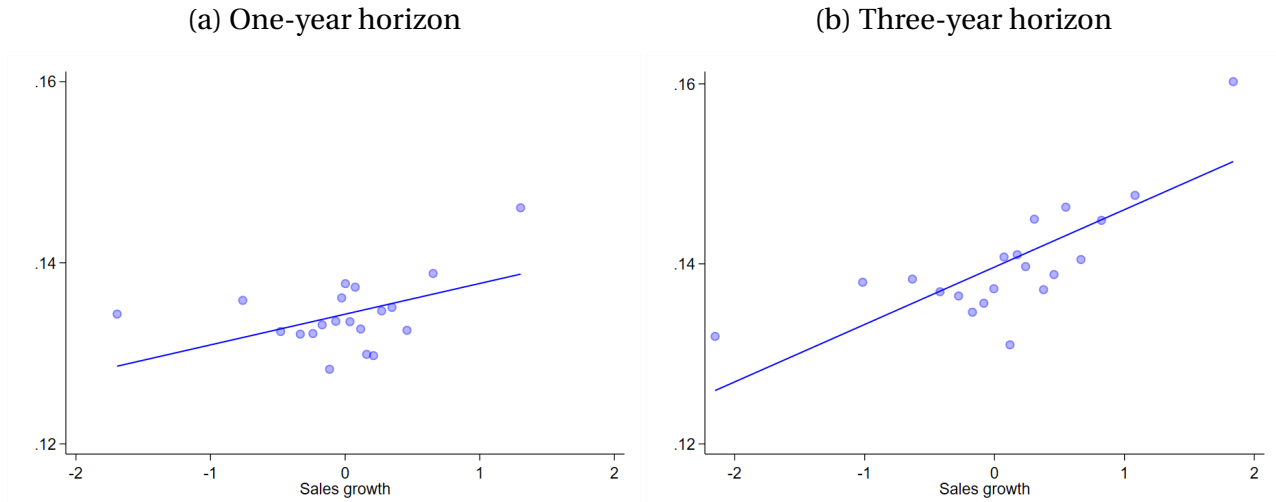
4 Why do firms hire from their buyers and suppliers?

To shed light on the reasons for which firms hire from buyers and suppliers, we examine the answers to two questions about firms' hiring practices included in the Business Opinion Survey run by the Central Bank of the Dominican Republic in December 2022 (see [section A2](#) for more details).

The first question inquired how much firms value the production network experience compared to other factors. Specifically, respondents were asked: *“How important are these factors when hiring skilled workers?”*, and possible factors included (i) *“Experience in the same or similar job position”*, (ii) *“Experience at competitor firms”*, (iii) *“Experience at the firms' buyers or suppliers”*, (iv) *“Academic studies the worker completed and the institution the worker graduated from”*, and (v) *“Referral from a personal contact or employee”*. For each factor, respondents could select one of the following: *“Not important”*, *“Somewhat important”*, *“Very important”*, and *“The most important”*.

¹⁹We estimate a complementary specification that shows that firms hiring from buyers and suppliers for the first time grow more than firms that do not start hiring along the supply chain in the same year.

Figure 9: Hiring from buyers and suppliers and firm growth
(Share of workers hired from buyers or suppliers)



Notes: The figure shows binned scatterplots in which the vertical axes report the share of firms' new hires—among total new hires from other firms—from its buyers or suppliers (in the previous year) and the horizontal axes report the firms' sales growth over one year (from t to $t + 1$) or three years (from t to $t + 3$). Data is residualized with respect to industry \times municipality \times year fixed, log sales, lag of log sales, log number of buyers plus suppliers, log total employment at buyers and suppliers, and log average earnings of the new hires. The sample is restricted to firms that hire at least one worker. The average share of new hires coming from buyers and suppliers is 12% and the median is zero.

We report the survey results for this question in [Table 1](#). Experience in a similar job position and academic studies were the two factors most commonly deemed very important or the most important factors. Over one-third of respondents stated that experience at one of the firm's buyers or suppliers is either very important or the most important factor when hiring skilled workers, with this share being close to those for experience at a competitor and for referrals. These results confirm our findings in the administrative data that experience along the supply chain is an important factor that firms take into account when hiring.

The second question directly asked about the reasons for hiring along the supply chain. Respondents were asked: *"If you have hired any worker from a buyer or supplier in the last three years, what were the reasons for such hiring?"*, and could choose any number of options among the following: (i) *"We have not hired any worker from a buyer or supplier in the last three years"*, (ii) *"The worker had specialized knowledge related to the firm's inputs and/or products"*, (iii) *"We received a referral for the worker"*, (iv) *"We had good experience dealing with the worker while working for the previous employer"*, (v) *"To create trust and improve the relationship with the buyer or supplier"*, and (vi) *"Other reasons"*.

[Table 2](#) reports the share of firms selecting each option. We find that 30% of the respondents recall hiring a worker from a buyer or supplier in the last three years, very close to the 28% we observe in the administrative data. Among these firms, 67% of the

Table 1: Relevant factors when hiring

Question: How important are these factors when hiring skilled workers?						
Answer	Not important	Somewhat important	Very important	The most important factor	Share of firms	Employment-weighted share of firms
(i) Experience in the same or similar job positions	8	24	68	47	78%	83%
(ii) Experience in one of the company's competitors	31	57	52	7	40%	27%
(iii) Experience in one of the company's buyers or suppliers	48	46	42	9	35%	30%
(iv) Academic studies and the institution where the worker graduated	22	39	68	18	59%	75%
(v) A referral from a personal connection or current employee of the company	39	44	50	10	42%	31%

Notes: 147 firms responded to the survey question. Respondents could select multiple options. The shares of firms are calculated by summing responses "very important" and "the most important factor". The employment weights are calculated using information from survey responses.

respondents answered that specialized knowledge was a reason to hire along the supply chain, 59% answered that they received a referral for the worker, 41% answered that they had a positive experience dealing with the worker, and 20% answered that the goal was to improve the relationship with the supplier or buyer. Only 17% of respondents included "other reasons" as an answer, suggesting that the options provided were fairly comprehensive.

Both referrals and previous positive interactions with the worker can be grouped into information-based reasons for hiring, as the hiring firm is likely to have better information about the worker and vice-versa. Workers who are in touch with their counterparts at buyers and suppliers are also more likely to learn about job openings at those firms. We find that both human capital and information are roughly equally important reasons for hiring along the supply chain: 67% vs. 77% unweighted and 62% vs. 52% weighted by employment, respectively. In summary, the survey evidence shows that both lower information frictions within supply chains and workers' supply chain-specific skills and knowledge are the key reasons that workers move along the supply chain.

5 Robustness and limitations

In this section, we first summarize the results of a series of robustness tests, which we present in more detail in [section A5](#). Then, we discuss the limitations of our study.

Table 2: Reasons for hiring along the supply chain

Question: If you have hired any worker from a buyer or supplier in the last three years, what were the reasons for such hiring?			
Answer	Number of responses	Share of firms	Employment-weighted share of firms
(i) We have not hired any worker from a buyer or supplier in the last three years	97		
(ii) The worker had specialized knowledge related to the firm's inputs and/or products	26	67%	62%
(iii) We received a referral for the worker	23	59%	34%
(iv) We had good experience dealing with the worker while working for the previous employer	16	41%	28%
(v) To create trust and improve the relationship with the buyer or supplier	8	20%	8%
(vi) Other reasons	8	17%	23%

Notes: 136 firms responded to the survey questions. Respondents could select multiple options. The shares of firms are calculated with respect to firms that selected any option other than (i). All firms that selected (i) did not select any other option, except one firm that also selected (vi) (thus this respondent is not considered when calculating the shares). The employment weights are calculated using information from survey responses.

5.1 Robustness

Ex-coworker networks One alternative explanation for our results is that worker flows between unconnected firms could lead both to future worker flows, because individuals learn about job opportunities via coworker networks (Lester et al., 2021; Caldwell and Harmon, 2019), and to the formation of buyer-supplier linkages, because of information spillovers. We evaluate the importance of this mechanism by running the random matching exercise on a sample that excludes workers who moved to a firm in which one of their ex-coworkers was employed. Reassuringly, the results are broadly unchanged: the share of movers to buyers and suppliers remains significantly higher than that from randomly matching workers to firms, which suggests that networks of previous coworkers cannot account for worker mobility between buyers and suppliers. The results on the supply chain earning premium are also unaffected when controlling for the presence of former coworkers at the destination firm.

Business ownership networks Networks of ex-coworkers are not the only relevant network shaping worker flows. For example, workers have a higher propensity to move within the same business group (Cestone, Fumagalli, Kramarz and Pica, 2019; Huneus, Larrain, Larrain and Prem, 2021a), which could overlap with firms' production networks. However, we find that the likelihood of workers moving along the supply chain is significantly higher than that from randomly matching workers to firms, even when we exclude

workers moving between firms with common ownership. The earning regressions also explicitly account for common ownership between origin and destination firms.

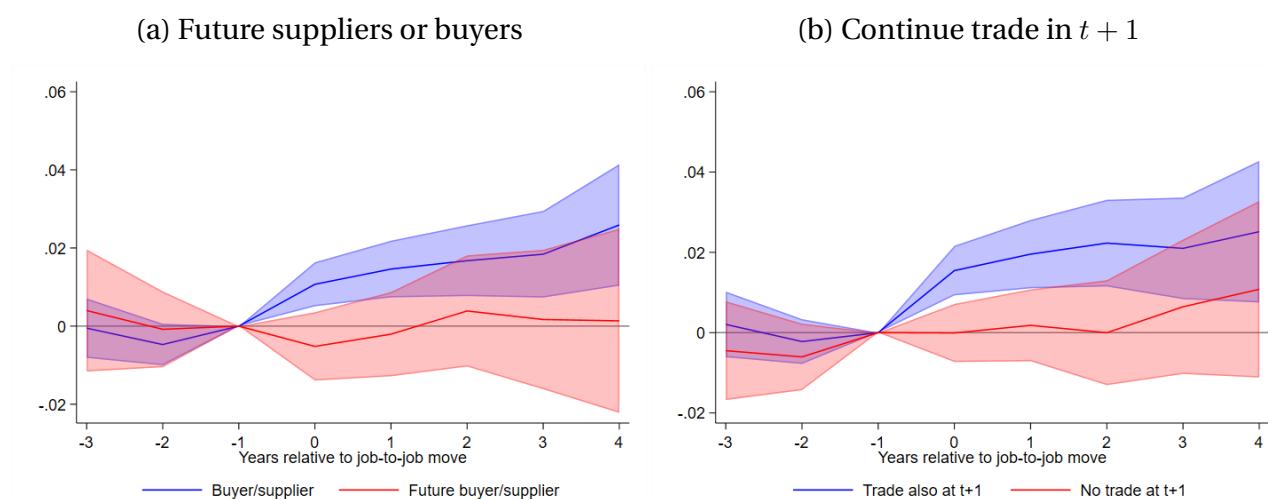
A placebo test with future buyers and suppliers Another potential issue is that unobservable factors correlated with supply chain linkages could affect both worker and trade flows between firm pairs. For instance, buyer-supplier pairs with similar occupational compositions may have a relatively high share of workers moving between them and trade disproportionately more. We mitigate this concern by calculating the share of movers to firms that 1) have not traded in the past and 2) start trading in the two years following the workers' move—'future' buyers and suppliers—and compare it to the share obtained by randomly matching workers to firms. We find that the share of movers to future buyers and suppliers is higher in the data than in the random matching exercise, but to a lesser extent than for 'current' buyers and suppliers (the odds-ratio is 1.4 vs 1.8, see [Table A2](#)). Therefore, current supply chain linkages remain an important factor in explaining worker mobility.

The estimates of the earnings premium for workers who move to buyers and suppliers are robust to including or excluding a rich set of firm-pair level controls. Nonetheless, unobservable factors at the firm-pair level could similarly confound our results. To address this concern, we conduct a placebo test by augmenting [Equation 1](#) with a dummy for workers that move to future buyers or suppliers. If factors other than supply chain linkages lead to the earnings premium, we should observe similar patterns for these movers. We do not find any earnings premium for movers to future buyers and suppliers ([Figure 10](#) panel a). Similarly, we find no earnings premium for workers who move along the supply chain if the buyer-supplier relationship ends in the year after the move ([Figure 10](#) panel b). These findings confirm that the supply chain premium is indeed due to the existence and the persistence of the buyer-supplier relationships.

Alternative empirical frameworks We also test the robustness of our results to employing alternative empirical frameworks. We find that workers' excess likelihood of moving along the supply chain is even more striking when we estimate it using a regression-based approach following [Kramarz and Thesmar \(2013\)](#) and [Kramarz and Skans \(2014\)](#). Furthermore, we find that the supply chain earnings premium is similar if we estimate it using an alternative empirical framework based on the AKM decomposition of earnings into worker-, firm-, and match-specific components ([Abowd et al., 1999](#)).

Other robustness [Appendix A5](#) reports some additional robustness tests. We document that the earnings premium is robust to focusing only on workers who remain at the desti-

Figure 10: Robustness of earnings dynamics
(Log of earnings)



Notes: Panel (a) plots the coefficients from a regression of movers' earnings k years after the move on a binary variable equal to one if the worker moves to a current buyer or supplier of the previous employer and on another binary variable equal to one if the worker moves to a future buyer or supplier of the previous employers, along with the 95% confidence interval. Panel (b) plots the coefficients from a regression of movers' earnings k years after the move on a binary variable equal to one if the worker move to a current buyer or supplier of the previous employer and this buyer-supplier relationship continues in the year after the move, and on another binary variable equal to one if the worker move to a current buyer or supplier of the previous employer and this buyer-supplier relationship does not continue in the year after the move, along with the 95% confidence interval. Both panels include year fixed effects, fixed effects for worker age deciles, gender, and a dummy for whether the origin and destination firm have any common ownership, origin firm-year and destination firm-year fixed effects, as well as fixed effects for the interactions of origin and destination firm municipality, industry, and employment quintile. Standard errors are double clustered at the origin and destination firm level. See [section A5](#) for more details.

nation firm for multiple years after moving, and to keeping workers whose monthly earnings are higher in their new job than their old job. The former result contrasts with the transitory earnings premium documented in [Dustmann, Gritz, Schönberg and Brücker \(2016\)](#) and [Gritz and Vejlin \(2021\)](#) for workers who find jobs through social networks. The latter result shows that our earnings premium is present among a subsample of workers whose moves are more likely to be voluntary. We also study mobility along the production networks for workers following mass layoffs—in order to isolate job separations due to firm-level shocks—and confirm that workers still disproportionately move to buyers and suppliers.

5.2 Limitations

Our data covers formal firms and workers formally employed with permanent contracts, thereby excluding job transitions into and out of the informal sector. As in other emerging economies, the share of informal employment is high in the Dominican Republic, at 57% according to the 2023 National Labor Force Survey. Firms operating in the informal sector are usually smaller, less productive, and exhibit lower growth rates than formal firms, and informal workers receive relatively lower earnings and benefits ([La Porta and Shleifer, 2014](#)). Small and less productive firms also have fewer buyers and suppliers ([Bernard et al., 2022](#)). Our results suggest that workers disproportionately move to buyers and suppliers in every industry, location, and firm size category. This pattern, however, is stronger for workers with higher earnings and hired from firms that grow faster. Additionally, the supply chain-specific earnings premium is present only for high earners. All in all, this suggests that while our findings are also likely to hold in the informal sector, it may be to a weaker degree than in the formal sector.

The data on the production network and labor market in this paper covers only the Dominican Republic. In [section A4](#), we leverage publicly available industry-level data and document that U.S. workers tend to move across more vertically integrated industries. While we cannot directly test whether supply chain moves are similarly frequent, this provides suggestive evidence that the connection between production networks and worker mobility is likely a feature common to other economies.

We do not quantify the costs associated with worker turnover, such as hiring and training costs, which tend to be high for skilled workers ([Blatter, Muehlemann and Schenker, 2012](#)). While we document several positive outcomes associated with hiring along the supply chain, it may lead to higher turnover for some firms and thus entail costly efforts such as posting vacancies, interviewing applicants, and training incoming workers. This is particularly relevant for low-earnings firms in highly productive supply chains, which may suffer from high turnover as workers use them as springboards towards better paid

jobs. On the other hand, these costs may be less relevant for worker-firm matches along the supply chain, as they tend to last longer than others (see [Table A4](#)).

Finally, our paper presents a set of key facts about worker mobility in the production network, but does not rationalize them within a theoretical model. A general equilibrium quantitative assessment of the impact of supply chain hiring on the economy is left for future research.

6 Conclusion

In this paper, we provide new insights into the job search and matching process by highlighting the essential role played by the firm-to-firm production network. Using administrative records for the Dominican Republic, we document five novel facts: 1) workers tend to move between buyers and suppliers, 2) movers between buyers and suppliers experience larger earnings increases than other movers, 3) incumbent workers earnings increase when their firm hires from its buyers or suppliers, 4) firm-to-firm trade increases following supply chain hires, 5) hiring from buyers and suppliers is associated with stronger firm growth. We also run a survey of Dominican manufacturing firms, which reveals that production networks are a source of information about job seekers (through referrals and direct contact), while also indicating the presence of a supply chain-specific component of human capital. These findings have implications for a wide range of policy-relevant questions, such as the connection between sparser production networks and weaker job ladders in developing economies, the reasons for declining labor market dynamism in advanced economies, and the economic impact of “no-poaching” clauses between buyers and suppliers.

Since our paper is the first to document the link between production networks and labor market flows, it opens up several avenues for future research. Firstly, it will be important to document whether production networks are similarly important for labor market flows in other countries at different levels of development. Secondly, our results suggest that the structure of production networks may have a large macroeconomic impact on worker earnings and aggregate productivity through labor market mobility. Macroeconomic general equilibrium models with firm-to-firm networks and worker mobility could be used to quantify these effects. Thirdly, future research can explore the importance of production networks for informal workers.

Data Availability Statement The administrative data underlying this article cannot be shared publicly because of the confidential nature. The other data and code underlying

this research is available on Zenodo at <https://dx.doi.org/10.5281/zenodo.13854386>.

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