Owner Culture and Pay Inequality within Firms*

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Abstract

We study the impact of national culture on within-firm pay inequality using a unique administrative dataset covering closely-held immigrant-owned firms in Canada from 2001-2017. We find that within-firm pay inequality varies significantly with a firm owner's country of origin. Firms owned by immigrants from more individualistic countries have higher pay inequality. Using a difference-in-differences analysis, we find a significant increase in within-firm pay inequality after the firm is taken over by immigrant owners from countries with higher within-firm-pay-inequality or more individualistic cultures. Our results suggest that informal institutions are important determinants of within-firm pay inequality across countries and thereby income inequality world-wide.

Keywords: Culture, Income inequality, Individualism, Immigrants
JEL Classification: J31, J15, Z10

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1 Introduction

Within-firm pay inequality is a key contributor to income inequality world-wide.[1] A better understanding of the wage-setting practices of firms is thus important for tracing determinants of income inequality and formulating effective policy responses that aim to rectify it. Within-firm pay inequality varies considerably across countries, contributing to large cross-country differences in income inequality.[2] While the wage-setting practices of firms may differ from country to country due to differences in economic structure, productivity, labor market regulations, and other formal institutions, they may also be affected by informal institutions such as culture. In this paper, we use the unique setting of immigrant-owned firms set up in a single host country to evaluate the role of national culture in determining within-firm pay inequality.[3]

Our analysis is based on a unique employee-employer-owner-immigrant matched administrative dataset that covers the universe of closely-held firms in Canada that are wholly-owned by first-generation immigrants. The sample has more than 353,000 firm-year observations over the period 2001-2017 with immigrant owners from more than 80 countries. Compared to other employer-employee-matched datasets, our data provide information on firm owners with an unambiguous link to administrative immigration records that include immigrants' countries of origin, number of years since landing, age, and proxies for education and skills.

It is plausible that immigrant owners carry the cultural values of their home countries to Canada, and that their culture influences wage-setting practices in the firms they set up in Canada and thus within-firm pay inequality. First, extant work shows that the labor market is not perfectly

[1] Within-firm pay inequality accounted for 42% of total pay inequality in the U.S. in 2013 (Song et al. (2019)) and, on average, for 43% of total pay inequality in 22 European countries in 2002–2010 (ILO (2016)). According to the OECD, in the 2015-2018 period, about half of the total wage inequality observed in the 18 countries studied can be attributed to differences in pay within firms (OECD (2021)).

[2] The share of within-firm to total pay inequality ranges from 30% in Romania to 58% in Czechia, and the ratio of the standard deviation of within-firm inequality across the 22 European countries to total pay inequality is about one-third (ILO (2016)).

[3] We follow prior work that identifies the impact of national culture by comparing immigrants from different source countries in a single host country (Antecol (2000), Antecol (2001); Fernández and Fogli (2006); Fernández (2011); Luttmer and Singhal (2011); Li et al. (2011); Li et al. (2013); Liu (2016); Pan et al. (2017); Nguyen et al. (2018); Pan et al. (2020)). In this work, culture is defined as "*beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation*" (Guiso et al. (2006)).

competitive and that firms influence employee pay significantly.[4] Second, prior work shows that national cultures of immigrant CEOs of U.S.-listed firms influence key corporate policies.[5] Compared to listed firms, immigrant owners are key decision makers in our setting of closely-held firms. Third, drawing on economic theory, we argue that individualism vs. collectivism – a widely used dimension of national culture relevant in corporate settings – should influence within-firm pay inequality. Fourth, Canada's unique history and laws promote the preservation of immigrants' cultures, resulting in a diverse society driven by significant variation in immigrants' source countries.

Our main measure of within-firm inequality is the dispersion of a firm's employees' log earnings.[6] We first document a statistically and economically significant association between within-firm pay inequality and immigrant owners' countries of origin fixed effects. Relative to firms owned by U.S. immigrants, the pay inequality in firms owned by immigrants from a culturally distant China, Taiwan, and Hong Kong is 17%, 19%, and 17% smaller, respectively, while the pay inequality in firms owned by immigrants from culturally close countries such as Australia and the U.K. is not significantly different. Next, we show that the immigrant owners' countries of origin explain a substantial part of the variation in within-firm pay inequality. Specifically, owners' countries of origin fixed effects are 24% as important as NAICS 4-digit industry fixed effects (that capture, for example, technology, capital intensity, and market competitions at a granular level) and are 229% as important as province fixed effects (that capture, for example, local product and labor market conditions, and institutional environment) in explaining the variance of within-firm pay inequality in our sample.

The association between within-firm pay inequality and immigrant owners' countries of origin remains statistically and economically significant after (1) controlling for firm characteristics such as firm size, firm age, capital-labor ratio, and average pay level of employees; (2) controlling for owner's characteristics such as skill, education, age, gender, language, and mari-

[4]See Abowd et al. (2002); Card et al. (2013), Card et al. (2018); Song et al. (2019).

[5]See Li et al. (2011), Li et al. (2013); Liu (2016); Pan et al. (2017); Nguyen et al. (2018); Pan et al. (2020).

[6]We follow a large body of prior work reviewed by Card et al. (2018).

tal status; and (3) controlling for industry, province, and year fixed effects or, alternatively, for industry-by-year, province-by-year, and industry-by-province fixed effects. In other words, immigrant owners' countries of origin have significant explanatory power for within-firm pay inequality even after controlling for differences in firm scale and performance, owners' capability in managing firms, industry time-invariant characteristics and shocks, local labor and product market conditions, and macroeconomic conditions.

To explain the association between within-firm pay inequality and owners' countries of origin, we focus on individualism vs. collectivism – a dimension of national culture developed by Hoftstede (1980), Hofstede and Hofstede (2001) based on surveys of employees across countries. Countries high in individualism emphasize individual goals, individual accountability, and individual achievement, whereas countries high in collectivism emphasize group goals, shared responsibility, and group harmony. Individualistic owners may thus organize work by assigning clear individual responsibility, which is in line with the one-dimensional principal-agent model where a high-powered incentive scheme is optimal (Holmström (1979); Lazear and Rosen (1981)). This rationale favors the use of strong monetary incentives that can lead to large within-firm pay inequality. Collectivist owners, on the other hand, may instead organize work in teams, with each employee performing multiple tasks assuming shared responsibilities. In such settings, it is optimal to pay employees a fixed wage independent of performance (Holmström and Milgrom (1991)). Further, Lazear (1989) argues that where cooperation among employees is important, we should expect lower-powered incentives that will lead to small within-firm pay inequality. We thus hypothesize that within-firm pay inequality is smaller in firms with more collectivist owners than in firms with more individualistic owners.

To test this hypothesis, at the country level we study the relationship between individualism and country-specific within-firm pay inequality measured by the estimated immigrant owners' country-of-origin fixed effects. We find a positive and significant association between these two variables with large economic magnitude. A one standard deviation increase in individualism is associated with a 0.86 standard deviation increase in within-firm pay inequality across owners' countries of origin. Further, the adjusted R-squared in this regression is 52.9%, suggesting that individualism alone

explains more than half of the variation in the estimated within-firm pay inequality across countries. These findings are robust when controlling for other important cultural dimensions, as well as for the level of development, the strength of formal institutions, employment/unions laws, or management practices of the owners' countries of origin. Consistent with the country-level results, we find that individualism is significantly and positively associated with pay inequality within firms when replacing estimates of country-of-origin fixed effects with individualism of the owners' countries in a firm-level regression. Importantly, we find that the relationship between individualism and within-firm pay inequality diminishes substantially if an immigrant owner landed in Canada before school age. This result suggests that our findings are due to the culture that immigrant owners brought to Canada from their respective countries of origin. In additional tests, we show that the results are robust to using alternative within-firm pay inequality measures. We also confirm our results by using different thresholds to construct the sample and by focusing on larger firms to mitigate potential systematic differences in the use of underground labor among immigrant owners.

The correlation between within-firm pay inequality and owners' countries of origin may be due to unobservable differences in production technology that are not captured by industry fixed effects, segmented local labor markets, sorting, or homophily between employers and employees with similar cultural backgrounds. Although it is unlikely that these mechanisms lead to a positive association between individualism and within-firm pay inequality, we nevertheless employ a difference-in-differences analysis on a subsample of immigrant-owned firms that experience an ownership change to mitigate concerns that these alternative mechanisms explain our findings. Specifically, we compare the evolution of within-firm pay inequality around owner-turnover events with a change in the owners' countries of origin relative to events without such a change in culture. We show that firms taken over by owners from countries with higher pay inequality or more individualistic countries experience a significant increase in within-firm pay inequality after the ownership changes. We find no evidence of pre-treatment trends and observe a permanent increase in within-firm pay inequality starting one year after the ownership change.

We refine our difference-in-differences analysis in a number of ways to further control for potential confounding effects. First, we repeat the difference-in-differences analysis on a subsample of employee "stayers" who work in the firm both before and after the ownership change so as to eliminate any effect due to compositional changes in the employee base around the change. We find quantitatively similar results. Second, we repeat the analysis of employee stayers in a subsample of firms in the Accommodation and Food Services sector, where the production function is labor-intensive and homogeneous across firms. We again find similar results. This mitigates the concerns that our results are driven by changes in unobservable production technology associated with ownership changes. Finally, we study changes in within-firm pay inequality of employee stayers following ownership changes caused by the deaths of prior owners and find qualitatively similar results. Because death events are plausibly exogenous to confounding factors that might be correlated with both changes in owners' countries of origin and changes in pay inequality among employee stayers, the effect we estimate are likely due to culture. Our results are also robust in a small subsample of premature deaths of firm owners in which we define premature death at the age of 60 or younger.

We next investigate the mechanisms through which owners' individualism affects within-firm pay inequality. First, as individualism emphasizes individual responsibility and monetary incentive, within-firm pay inequality may vary with individualism due to smaller pay compression, which refers to the phenomenon of negligible differences in pay between employees regardless of their abilities. Within-firm pay inequality may also vary with individualism due to the selection of employee ability. We test the first channel at the employee level by interacting the individualism of a firm's owners' home country with the ability of the firm's employees. We test the second channel by regressing the dispersion of abilities of a firm's newly hired employees on the firm's owners' culture. We proxy an employee's ability by their wage prior to joining the firm. We find empirical support for both channels. Consistent with individualistic owners putting more emphasis on monetary incentives, pay compression is smaller in firms owned by more individualistic owners. Further, we find that more individualistic owners tend to select new employees with more dispersed abilities.

To summarize, using a detailed employee-employer-firm owner-immigration records matched administrative panel dataset, we show that within-firm pay inequality varies significantly with a firm owner's country of origin, and it is higher if the owner immigrated from a more individualistic country. These findings hold using both cross-sectional and difference-in-differences empirical designs implemented via a range of regression specifications. Taken together, our analyses support the interpretation that culture, and individualism in particular, affects within-firm pay inequality through wage setting by firms' owners. Overall, our findings suggest that informal institutions are economically important determinants of within-firm pay inequality across countries and thereby income inequality world-wide.

Our paper contributes to the emerging literature on the determinants of within-firm pay inequality. Prior work shows that market forces (e.g., competition), firm attributes (e.g., firm size), and technological change (e.g., automation) affect within-firm pay inequality (Mueller et al. (2017); Domini et al. (2020); Gartenberg and Wulf (2020); Bias et al. (2021); Moser et al. (2021); Friedrich (2022); Fang et al. (2199); He et al. (2022)).[7] We complement these studies by highlighting the role of national culture in explaining pay inequality within firms.

Second, our paper contributes to the literature on firms' pay setting (see Prendergast (1999); Bloom and Van Reenen (2011); Rebitzer and Taylor (2011); Gibbons and Roberts (2013) for reviews). Our results suggest a role of culture in affecting pay setting inside firms. The result that within-firm pay inequality varies with owners' countries of origin, and individualism in particular is consistent with studies that emphasize the role of non-pecuniary factors in the workplace (Akerlof and Kranton (2005); Rebitzer and Taylor (2011); Gartenberg and Wulf (2020)). The results are also consistent with findings in the cross-cultural psychology and cross-cultural organizational behaviors literature that individualism is positively associated with the use of individual monetary incentives (see reviews in Aycan and Gelfand (2012), and Kerr and Kerr (2016)).

We also contribute to a growing literature on the effects of culture on economic outcomes and corporate policies (Antecol (2000), Antecol (2001);

[7] More broadly, our paper is related to the large literature on the determinants on pay inequality (Lemieux (2008); Acemoglu and Autor (2011); Card et al. (2018) provide reviews).

Guiso et al. (2004); Guiso et al. (2009); Algan and Cahuc (2010); Li et al. (2013); Ahern et al. (2015); Gorodnichenko and Roland (2017); and reviews in Guiso et al. (2006); Luttmer and Singhal (2011); Nguyen et al. (2018); Pan et al. (2020)). We add to this literature by focusing on an outcome variable of public policy interest, within-firm pay inequality. In particular, our paper is related to Alesina and Giuliano (2011) and Luttmer and Singhal (2011), who show that culture shapes household preferences for income redistribution by the government, thereby impacting households' voting in elections.

The paper is organized as follows. In Section 2, we describe our conceptual framework and hypothesis development. In Section 3, we describe the data and sample construction. In Section 4, we present our main results on the impact of national culture on within-firm pay inequality. In Section 5, we link the estimated country-of-origin fixed effects to individualism. We proceed to identify the causal effect of culture on pay inequality within firms in Section 6. In Section 7, we explore possible channels for the effect of culture on within-firm inequality. Section 8 concludes.

2 Conceptual framework

2.A Owner culture and pay setting inside firms

Our empirical tests follow from the argument that a firm's owners can impact the firm's employees' pay and that the national culture of the firm's owners influences how they set the pay of their employees. This argument is supported by empirical facts. First, a large literature in labor economics provides evidence that local labor markets are not perfectly competitive and that firms have significant latitude to set employee wages (e.g., Abowd et al. (2002); Card et al. (2013), Card et al. (2018); Song et al. (2019)). Second, decision makers, typically CEOs and top executives of public firms, influence a range of firm policies (see the seminal work by Bertrand and Schoar (2003)). In our sample of closely-held firms – the median firm has one owner, and the average number of owners per firm is 1.4 – the owners are arguably the most influential decision makers in their firms and could thus determine a range of corporate policies, including setting pay for all

levels of employees. Third, a large literature documents that immigrants carry their home country's culture, such as attitudes to saving, work participation, gender norms, and preference for redistribution to the host country (Antecol (2000), Antecol (2001); Fernández and Fogli (2006); Fernández (2011); Luttmer and Singhal (2011)). Furthermore, recent studies show that the cultural heritage of second- or third-generation-immigrant CEOs affects important firm policies and outcomes such as corporate misconduct, acquisitions, and performance under competitive pressure (Liu (2016); Pan et al. (2017); Nguyen et al. (2018); Pan et al. (2020)).

Our setting of immigrant-owned firms in Canada is particularly favorable for studying the effect of decision makers' national culture on corporate policies. Immigrant owners in our sample are first-generation immigrants whose behavior and decisions are directly influenced by the cultural values of their home countries. In addition, Canada's multiculturalism policy facilitates that the culture of the owners' home countries is preserved. Specifically, Canada – the first country in the world to adopt a multiculturalism policy in 1971 – acknowledges that its citizens come from a wide variety of cultural backgrounds and that all cultures have intrinsic value. The multiculturalism policy emphasizes the right of all Canadians to preserve and share their cultural heritage while having the right to full and equitable participation in society, including business activities.

2.B Individualism and within-firm pay inequality

We focus on individualism vs. collectivism – a dimension of national culture developed by Hoftstede (1980), Hofstede and Hofstede (2001). Originally constructed from answers to surveys of employees from IBM across 70 countries, Hofstede's cultural dimensions capture values in the workplace and are thus immediately relevant to the corporate setting we study. Hofstede identified four dimensions of culture: individualism (vs. collectivism), power distance, masculinity, and uncertainty avoidance. According to Hofstede (2011), individualism governs the value that individuals place on the self vs. on the group (e.g., team or firm), as well as the relationship between them. Cultures high in individualism emphasize individual goals, individual accountability, and individual achievement, whereas cultures high in

collectivism emphasize group goals, shared responsibility, and group harmony.[8] We build on these distinctions of individualism (vs. collectivism) together with existing economic theories to develop a hypothesis of how owners' individualistic culture affects pay-setting decisions, and thereby pay inequality among employees within firms.

According to canonical agency theory (Holmström (1979)) and tournament theory (Lazear and Rosen (1981)), firm owners should use high-powered monetary incentives to motivate employees. Specifically, owners should either link monetary compensation to performance or maintain large pay gaps along job ladders to motivate employees to climb up the ladders. Follow-up work discusses when this framework does not apply and highlights the costs of high-powered incentives. Holmström and Milgrom (1991) show that the standard one-dimensional agency model with high-powered incentives is not optimal in settings where a single employee performs multiple tasks or where responsibility is shared among multiple employees. In such settings, the optimal incentive contract of an employee can be a fixed wage contract independent of performance, even if objective measures of output are available. Further, Lazear (1989) suggests that when cooperation among employees is important, we expect to see lower-powered incentives and less wage differentiation because the presence of high-powered incentives may lead employees to over-compete or sabotage work.

Hofstede (2011) argues that in individualist cultures, owners view employees as "economic persons" who value personal goals over group goals and emphasize individual employee accountability. Accordingly, owners from individualistic cultures would organize work by assigning clear objectives and responsibilities to individual employees. In this case, the standard one-dimensional agency model with high-powered incentives is more likely to be used, suggesting a large within-firm pay dispersion among employees. On the other hand, owners from collectivist cultures would place greater emphasis on group interests and organize work in teams with shared responsibility for outcomes (Kashima and Callan (1994); Sanchez and Levine (1999)). In this case, lower-powered incentives are more likely to be used

[8] Individualism is a widely studied dimension (Triandis (1988); Triandis (2001)), which has been shown to influence important economic outcomes, corporate policies, and human resource management practices (Li et al. (2013); Gorodnichenko and Roland (2017); and reviews in Kirkman et al. (2006), and Aycan and Gelfand (2012)).

due to the multiplicity of tasks and team production or because employees may otherwise strategically spend less effort on teamwork and over-compete or sabotage work, all of which suggest a small within-firm pay dispersion among employees.

There are two additional arguments by which owners from collectivist cultures rely less on high-powered monetary incentives, lowering within-firm pay dispersion. The first argument is based on evidence that collectivist cultures have a stronger preference for equal pay among group members (e.g., Sama and Papamarcos (2000)).[9] Collectivist owners may view unequal pay in the form of strong pay-for-performance incentives as eroding group cohesion and employee productivity (Card et al. (2012); Breza et al. (2018)). The second argument is that owners from collectivist cultures would expect employees to shirk less and to take extra actions that benefit the firm (Moorman and Blakely (1995)), relying on stronger group identity as a substitute for monetary incentives in eliciting effort (Akerlof and Kranton (2005)). As a result, owners from collectivist cultures would flatten the monetary compensation schedule to put emphasis on the maintenance of group harmony and enhancement of the team environment (Gomez et al. (2000); Fadil et al. (2005); Bolino and Turnley (2008)).

The theory and evidence we review above lead to the hypothesis that firms held by owners who immigrated from more individualistic countries rely more on high-powered individual monetary incentives in the workplace, leading to greater within-firm pay inequality among employees. We test this hypothesis by examining the relation between individualism and within-firm pay inequality. Due to the lack of data on job assignment, job performance, job title, and firm hierarchy, however, we cannot provide direct evidence on which particular mechanism drives the results.

[9] In experiments, Chinese (high collectivism) used the equality rule in allocating rewards more than did Americans (Bond et al. (1982); Leung and Bond (1984)).

3 Data and summary

3.A Data sources

Our main source of data is the matched employer-employee dataset from the Canadian Employer-Employee Dynamic Database (CEEDD) maintained at Statistics Canada, an administrative dataset with information on the universe of Canadian employees and their employers compiled from tax records. CEEDD contains annual labor earnings information received by each employee from each employer each year. CEEDD also provides information on workers' characteristics such as age, gender, and marital status. Our access to the data covers the years from 2001 to 2017. At the firm level, the dataset contains high-quality financial information such as total assets, revenue, industry classification, and location. Following Song et al. (2019), we assign all workers who received labor earnings from the same business identifier in a given year to that firm. Workers who hold multiple jobs in the same year are linked to the firm providing their largest source of earnings for that year. Although CEEDD contains comprehensive information on employee earnings and firms' financials, it has several limitations. First, CEEDD lacks individual worker's education and occupation. Second, we are not able to measure wage rates because CEEDD lacks information on hours or weeks an employee worked. Following prior literature (Card et al. (2013); Song et al. (2019)), we only include individuals aged 20 to 60 whose earnings is above a minimum threshold to minimize the effect of variation in hours worked, removing individuals who are not strongly attached to the labor market (Song et al. (2019)).[10]

Next, we link CEEDD with T2 Schedule 50 forms which contain information on each firm's shareholders with an ownership stake of 10% or greater. Private companies are required to file T2 Schedule 50 to disclose any shareholder that holds 10% or more of the companies' common or preferred shares.[11] We rely on this linkage to identify firms' owners. In comparison to studies that use U.S. Census data which lack information on shareholders and thus typically proxy owners by top earners (e.g., Kerr and

[10] Specifically, we remove individuals whose annual earnings are below that year's minimum wage across all provinces for one-quarter full-time. For example, in 2001, 13 weeks for 40 hours at $5.6 per hour, or $2,912).

[11] A maximum of the 10 top shareholders needs to be disclosed.

Kerr (2016)), CEEDD data allows us to accurately measure firm ownership.

We then link CEEDD with the Longitudinal Immigration Database (IMDB), which is derived from the records of individuals who successfully applied for permanent residency status in Canada (equivalent to holding a Green Card in the U.S.). Our access to the IMDB data covers the years from 1980 to 2018. IMDB includes information on immigrants' education, skill, countries of origin, and the date they landed. We define a person as an immigrant if they are recorded in IMDB. Using the countries of origin of the immigrant owners, we are able to precisely measure the cultural origin of firms' owners. Compared to prior literature that infers CEOs' cultural heritage from names, our approach does not introduce measurement error when determining owners' cultural heritages.

3.B Variable construction

Our dependent variable, within-firm pay inequality, is calculated as the variance of a firm's employees' log wage earnings.[12] In calculating the inequality measure, we exclude the owner's earnings received from the firm as the owner may be compensated by both wage earnings, dividends, and capital gains. However, our baseline results are not sensitive to excluding owner pay from the variable construction.[13]

We follow the literature that identifies the impact of culture by studying immigrants and their descendants (Guiso et al. (2004); Fernández (2011); Luttmer and Singhal (2011)). We restrict our sample to firms that are wholly owned by immigrants in Canada over the period 2001 – 2017. When a firm has multiple owners, for ease of interpretation, we only include it in the sample if all of its owners are immigrants from the same country. We make this choice because it is unclear how ownership power and differing cultural values may interact in firms with multiple owners.

Due to the limited data span of IMDB, we are unable to capture immigrants who landed in Canada before the year 1980. As a result, we exclude

[12]There may be potential differences in the use of "unofficial" labor among immigrant owners. To mitigate this concern, in Internet Appendix Table IA5 we use a sample of larger firms as they are less likely to make substantive use of unofficial labor.

[13]Internet Appendix Table IA4 Panel A reports correlations between our main inequality measure and alternative inequality measures: (1) a measure that includes owners' earnings and (2) the gap in log earnings between the 90th and 10th percentiles (excluding owners).

from the sample firms owned by individuals born in Canada or early immigrants who might land in Canada before 1980. We also exclude firms in the government or educational sectors, following Song et al. (2019). We further restrict our sample to firms that are at least two years old to ensure that the majority of employees in the firm work a full year in each firm-year observation. Importantly, we restrict our sample to firms with at least three employees to ensure that within-firm statistics are meaningful. Finally, as we use the owner's countries of origin fixed effects to estimate the culture of each owner's country-of-origin group, we require each such group to have at least 1,000 firm-year observations in our sample. This sample screen ensures that the country-of-origin fixed effects are precisely estimated.

Following these sample construction steps, we end up with a panel of 353,120 firm-years over the period 2001–2017. This yields a sample of about 20,800 firms per year on average, ranging from about 8,200 firms in 2001 to 35,000 firms in 2017.

3.C Descriptive statistics

Table 1 presents descriptive statistics for our sample over the period 2001-2017. Panel A presents summary statistics for key variables. The top part of Panel A documents summary statistics of firm-level characteristics. The sample mean of our within-firm pay inequality measure is 0.313, and the standard deviation is as big as the sample mean. The average firm in our sample is 8 years old, has 8 employees, total assets of $0.557 million, a capital-labor ratio of $86,000, and revenue of $1.048 million. The bottom part of Panel A presents summary statistics of owner-level characteristics. Our sample mainly consists of small closely-held firms. The average number of owners per firm is 1.4. Prior work on CEOs of large public firms finds that they have significant influence over corporate policies (e.g., Bertrand and Schoar (2003)), we thus expect owners in our sample to have significant influence over firm policies, including setting employees' pay. As for the other owner characteristics, the average owner is 47 years old. Relative to firm-year observation, the immigrant owners have been in Canada for 18 years since landing on average. Therefore, on average, an immigrant

owner spent her first 29 years in her source country before immigrating to Canada, and it is thus very likely that her source country's culture has a significant influence on her behavior as a firm owner.

IMDB also records immigrants' skills and education levels at the time of landing. Education level is based on years of schooling, with a score of 1 being 0 to 9 years of schooling and 8 a doctorate. An average owner receives an education score of 3.66 at the time of landing, which means 13 or more years of schooling (equivalent to a high school degree). We also use the fraction of a firm's owners with a college degree or higher as an alternative measure of owners' education level. 30.8% of owners in the sample hold at least a college degree at the time of immigration. IMDB's skill level is based on a 10-category system, including managerial, professional, skilled and technical, intermediate and clerical, elemental and laborer, new workers, non-workers, retired, and student. We recoded the 10 categories into scores, with a score of 1 being students and 8 being managerial. We acknowledge that the score ranking may not be the best way to represent the skill level of immigrants. As an alternative measure, we construct three indicator variables that equal to 1 if at least one owner of a firm has technical/managerial/professional skills. Our empirical results are robust to different measures of owners' skills.

In Internet Appendix Table IA1 Panel A, we present the sample composition by owners' countries of origin. We report the sample means and standard deviations of within-firm pay inequality for each country-of-origin group. For ease of comparison, we use the Z-score to measure how far the within-firm pay inequality of a country deviates from the overall average within-firm pay inequality in the sample. For example, the average within-firm pay inequality in companies owned by Chinese immigrants is 0.273, and the corresponding Z-score is -1.7. The Z-score indicates that the average within-firm pay inequality in Chinese-owned companies is 1.7 standard deviations below the average within-firm pay inequality of all companies in the sample. On the other hand, the average within-firm pay inequality in U.S.-owned firms is 0.369 with a Z-score of 1.2. This suggests that the average within-firm inequality in U.S.-owned firms is 1.2 standard deviations above the sample average. We also plot the Z-scores in Figure 1 to visualize the variation in within-firm pay inequality by immigrant owners'

countries of origin in Canada.

We also report landing duration, which measures the number of years since landing relative to each firm-year observation. The average landing duration is very similar across different country-of-origin groups, suggesting that we are comparing immigrants with a similar length of exposure in Canada.[14]

4 Owners' countries of origin and within-firm pay inequality

In this section, we present our main result on the relationship between owners' countries of origin and within-firm pay inequality. Specifically, we estimate the following regression using on our sample of immigrant-owned firms in Canada:

$$WFI_t^j = I_{SC}^j \cdot \beta_1 + X_t^j \cdot \beta_2 + Industry\,FE + Province\,FE + Year\,FE + \varepsilon_t^j. \tag{1}$$

The dependent variable, WFI_t^j, is within-firm pay inequality at firm j in year t, measured by the variance of its employees' log wage earnings. I_{SC}^j includes a vector of dummy variables indicating the owners' source countries for firm j in year t. Firms owned by immigrants from the U.S. are omitted to form the benchmark group. Vector β_1 contains coefficients of the owners' countries of origin fixed effects. A positive coefficient associated with a source country indicates a higher within-firm pay inequality in firms owned by that country's immigrants relative to firms owned by U.S. immigrants. Our hypothesis predicts that the coefficients in β_1 will be jointly statistically significantly different from zero if the owners' cultural heritage has any impact on pay inequality within firms.

In our regression specification, we include four-digit NAICS industry fixed effects, year fixed effects, and province fixed effects to control for the unobservable differences in technology, economic, and institutional conditions which may influence within-firm pay inequality by impacting the distribution of marginal product of labor and how a firm's rents are dis-

[14] In Internet Appendix Table IA1, we also report sample composition by year and NAICS 2-digit industry sectors.

tributed among employees. In particular, year fixed effects control for unobservable macroeconomic conditions. Industry fixed effects control for the industry-specific production technology and market conditions. Province fixed effects control for local product market conditions, labor market conditions, and institutional environments. For robustness, we replace these fixed effects with year-by-industry interacted fixed effects, year-by-province interacted fixed effects, and province-by-industry interacted fixed effects and find similar results. Vector X_t^j includes a set of time-varying firm and owner-level characteristics that may affect within-firm pay inequality.

Table 2 reports the estimates of Equation (1). Due to space constraints, we only report coefficients of owners' countries of origin fixed effects for several example countries to illustrate the pattern and the economic significance of our results. We report the full set of coefficients in the Internet Appendix Table IA2. The coefficient of China is -0.062, and it is statistically significant, indicating that the estimated pay inequality for firms owned by Chinese immigrants is 0.062 smaller than that of firms owned by U.S. immigrants, or 16.8% of the average pay inequality of the latter group from Internet Appendix Table IA1 Panel A. We find significant coefficients of similar magnitudes at -0.071 and -0.061 for Taiwan and Hong Kong, respectively, two places that are culturally close to mainland China and also have low individualism. On the other side of the spectrum, the coefficients of France, Germany, and the U.K. are all positive but small and statistically insignificant, indicating that firms owned by immigrants from these countries have similarly high levels of pay inequality to firms owned by the U.S. immigrants. Interestingly, all three countries score high on Hofstede individualism. Taken together, we find both statistically and economically significant variations in within-firm pay inequality across immigrant owners' countries of origin, and the pattern in the coefficients suggests a close relationship between the within-pay inequality and individualism, one of the key dimensions of culture.

In Column 2, we include the logarithm of the number of employees to control for the impact of firm size. According to the span of control model (Rosen (1982)), the difference in capability and marginal productivity among employees of different hierarchies tends to be greater in bigger firms. Therefore, bigger firms tend to have higher within-firm pay inequal-

ity than smaller firms. We also include the capital-labor ratio to control for the impact of production technology, which may affect the distribution of employees' marginal productivity, thus, pay inequality within firms. In Column 3, we add the logarithm of firm revenue to control for the impact of firm performance on within-firm pay inequality. Well-performing firms are more likely to share rents with employees, and to the extent that rents may be shared unequally, firm performance will affect within-firm pay inequality. Furthermore, we include firm age and its quadratic term to control for the variations of within-firm pay inequality over a firm's life cycle. We also include an indicator variable for whether a firm has multiple owners to control for the potential impact of the ownership structure. Lastly, in Column 4, we include variables related to the skill and education level of the immigrant owners to control for the influence of the owner's management skills, which may affect the design and implementation of incentives, thus, pay inequality within firms. We find very similar results when we gradually add control variables capturing firm and owner characteristics from Column 2 to Column 4.[15]

In Internet Appendix Table IA3 Panel A, we report results obtained using specifications with more comprehensive sets of fixed effects, We find very similar coefficients of the owners' countries of origin fixed effects in all the specifications, suggesting a robust relationship between the owner's cultural heritage and within-firm pay inequality.

Internet Appendix Table IA2 Panel A reports the full set of coefficients. 70% of the coefficients of owners' countries of origin fixed effects are significantly different from zero, indicating that firms owned by immigrants from most countries around the world have significantly different within-firm pay inequality compared to firms owned by U.S. immigrants. These coefficients are jointly highly statistically significant, which is consistent with the important role of culture in within-firm inequality. Interestingly, most coefficients of the owners' countries of origin fixed effects are negative, indicating that firms owned by immigrants from most other countries around the world have smaller pay inequality relative to firms owned by U.S. immigrants, which is the most individualistic country in our sample.

[15]In Table IA2 Panel B, we present the pair-wise correlation coefficients of the estimated owners' countries of origin fixed effects between different specifications in Panel A. All correlations are 0.94 or greater.

To further assess the importance of culture, we perform an analysis of variance (ANOVA) to decompose the variance of within-firm pay inequality into variations associated with each independent variable. Table 2 Panel B presents the results of the ANOVA analysis based on Equation (1). The F-test of joint significance of the owner's countries of origin fixed effects is statistically significant at the 1% level. In terms of economic significance, the partial sum of squares column presents each variable's contribution to the total variance of within-firm pay inequality after controlling for the influence from the other independent variables. Panel B shows that the owner's countries of origin fixed effects contribute 151.53 to the variance of within-firm pay inequality. In terms of explaining the variance of within-firm pay inequality, the owners' cultural heritage is 95.5% as important as macroeconomic trend proxied by the year fixed effects, 23.6% as important as industry-specific technology factors, product market conditions, and labor market conditions proxied by the NAICS 4-digit fixed effects, and 229.3% as important as local product market conditions, labor market conditions, and institutional environments proxied by the province fixed effects. Overall, the results in Table 2 Panel B suggest that the owner's cultural heritage has an economically significant influence on within-firm pay inequality.

Internet Appendix Table IA2 Panel C presents ANOVA results in alternative specifications with year-by-industry interacted fixed effects, year-by-province interacted fixed effects, and province-by-industry interacted fixed effects, and Panel D includes firm and owner characteristics variables. We find similar results in both specifications with the contribution of owners' countries of origin fixed effects to the variance of within-firm pay inequality at 140.2 and 107.8, respectively.

We conclude that our results so far suggest that culture has a statistically and economically significant association with within-firm pay inequality. The results are robust across various specifications with different sets of fixed effects and control variables.

5 Individualism and within-firm pay inequality

An important step in our analysis is to show how the estimated countries of origin fixed effects from Equation (1) are related to key dimensions of culture. We focus on individualism, a widely used and arguably most relevant cultural dimension for within-firm pay inequality. As discussed in Section 2, we hypothesize that individualism is positively associated with within-firm pay inequality because individualistic owners emphasize monetary incentives, individual achievement, and individual accountability, as opposed to group harmony and equal pay. To visually show the relationship, we plot each country's within-firm pay inequality relative to the U.S. against the country's individualism relative to the U.S. in Figure 2, where the former is measured by the estimated owners' countries of origin fixed effects from Column 2 in Table 2. Consistent with our hypothesis, the figure shows a clear positive relationship between the country's within-firm pay inequality we estimate and the country's individualism.

To formally test the relationship between individualism and within-firm pay inequality, we regress the estimated owners' countries of origin fixed effects on Hofstede's individualism measure. To facilitate the comparison, we normalize all the variables to have a standard deviation of one. Table 3 Panel A presents the results. Column 1 shows that a country's individualism is positively associated with the pay inequality of firms owned by immigrants from the country in Canada. The coefficient is economically significant. A one standard deviation in individualism is associated with a 0.018 increase in within-firm pay inequality, which is 85.8% of the standard deviation of within-firm pay inequality across all source countries in our sample. Column 1 also shows that the adjusted R^2 is 52.9%, indicating that individualism alone explains more than half of the variations in within-firm pay inequality across source countries.

In Column 2, we include three other Hoftstede (1980) and Hofstede and Hofstede (2001) cultural dimensions and a measure of trust to control for the impact of other important cultural values. In Column 3, we add the logarithm of GDP per capita to control for differences in management skills or other relevant variables that are associated with economic devel-

opment across countries. We also include a country's share of the shadow economy to control for the propensity of the country's migrants to employ underground labor. Since underground workers are untaxed, they will not appear in our database and may thus bias our baseline results. In Column 4, we further include variables capturing legal origins and the rule of law to control for the impact of the source country's legal environment. Similarly, we include the employment law index and the union law index to control for the source country's labor laws in Column 5. Finally, in Column 6 we include the average score from management questions of World Management Survey (WMS) to control for differences in management practices across countries.[16] The positive relation between individualism and within-firm pay inequality is very robust to all alternative specifications we consider. Importantly, individualism is the only variable that consistently shows a positive and statistically significant association with within-firm pay inequality across all specifications.

As an alternative approach, we directly test the relationship between individualism and within-firm pay inequality in Table 3 Panel B. In particular, we replace the estimated owners' countries of origin fixed effects with Hofstede's measure of individualism at the country level. We find quantitatively similar results: A one standard deviation increase in individualism is associated with a 0.019 increase in within-firm pay inequality. Based on the coefficients, pay inequality in firms owned by Chinese immigrants is 0.058 smaller than that of firms owned by U.S. immigrants, or 15.7% of the average pay inequality of firms owned by U.S. immigrants. This is quantitatively similar to the results in Table 2 using countries of origin fixed effects.[17]

In Table 3 Panel C, we investigate whether the effect of the home country's culture on within-firm pay inequality varies with the immigrant owner's exposure to the Canadian culture. We show that the effect diminishes when the immigrant owner landed in Canada before the age of seven and thus has limited exposure to the home country's culture. This result

[16] There are 35 counties in total from the full WMS sample, and the intersection with our sample is only 27 counties. The positive relation between individualism and within-firm pay inequality is robust to controlling for differences in management practices focused separately on operations, monitoring, and talent.

[17] In Internet Appendix Table IA3 Panel B, we report robust results with additional control variables that capture other firm and owner characteristics such as gender, marital status, language, and a firm's average pay level of employees

further suggests that our findings are due to the culture that immigrant owners brought to Canada from their respective countries of origin.

As a robustness check, we construct alternative within-firm pay inequality measures: (1) a measure that includes owners' earnings; and (2) the gap in log earnings among employees between the 90th and 10th percentiles. Internet Appendix Table IA4 Panel A reports correlations between our main inequality measure and alternative inequality measures. We find similar results using these alternative inequality measures in Table IA4 Panel B and C.

In Internet Appendix Table IA5, we report results using different thresholds to construct the sample. Panel A presents the regression results between within-firm pay inequality and a firm's owners' country-of-origin group in firms as in our baseline results, but we require firms to have at least four employees. The results are very similar to the ones in Table 2.[18]

There might be potential systematic differences in the use of underground labor among immigrant owners. To mitigate such concern, we also examine relatively larger firms that are less likely to make substantial use of "unofficial" labor. In Internet Appendix Table IA5 Panel B and C, we repeat the firm-year-level regression on within-firm inequality and individualism but require firms to have at least 14 employees and 49 employees (top quartile and percentile of the sample, respectively). Our results are robust in large firms.

Collectively, these findings show that there is a positive, and statistically and economically significant association between individualism and within-firm pay inequality. The positive association is consistent with our hypothesis that individualistic owners are less inequality-averse and tend to use monetary incentives to motivate employees.

6 Change in firms' owners analysis

Immigrant owners' countries of origin may systematically correlate with the unobservable production technology used by firms leading to differ-

[18]The correlation between the coefficients in Internet Appendix Table IA5 Panel A and the coefficients from Internet Appendix Table IA2 Column 1 is greater than 0.93.

ent workforce compositions in terms of skills. This, in turn, could create variations in within-firm pay inequality. In addition, the sorting of employees towards owners with similar cultural backgrounds and homophily between them may also generate variations in within-firm pay inequality. Relatedly, the local labor market might be segmented by workers' cultural backgrounds. Combined with sorting between employees and owners, this could as well generate variations in within-firm inequality. While it is not straightforward why individualism should be correlated with these factors in ways that generate a positive association between individualism and within-firm inequality, to further identify the effect of culture and mitigate omitted variables concerns, we perform a differences-in-differences (DiD) analysis on a subsample of firms that experience a change in ownership. We define treated firms to be immigrant-owned firms that are taken over by immigrant owners from a different country. Control firms are immigrant-owned firms that are taken over by immigrant owners from the same country.

We first perform DiD analysis using all employees.[19] Next, to control for compositional changes of employees on within-firm pay inequality, we perform the same analysis using a subsample of employee "stayers", that is, employees who work for the firm before and after the ownership change.[20]

[19]Internet Appendix Table IA6 Panel A presents summary statistics for the treated and control firms in our DiD sample based on all employees. The top part of the panel presents firm-level characteristics, and the bottom part of the panel presents owner-level characteristics. The average within-firm pay inequality in the treated firms is 0.320, whereas it is 0.311 for the control group. In terms of size, treated firms are similar to control firms. The average treated firm has total assets of $0.5 million, a revenue of $1.086 million, a capital-labor ratio of $71,000 compared to total assets of $0.618 million, a revenue of $1.088, and a capital-labor ratio of $96,000 for control firms. The average firm is similar in terms of other observable characteristics, such as the number of employees and firm age since incorporation between treated and control groups. On average, there are 1.59 owners running a treated firm and 1.78 for a control firm. The average owner in the sample is 46 years old. On average, 24.3% of owners of treated firms hold a college degree or higher at the time of immigration, while it is 31.0% in the control firms. 24.6% of owners are female in the treated group, and 29.2% of owners are female in the control group.

[20]We require firms with at least three employee stayers to ensure that within-firm statistics are meaningful.

6.A Difference-in-differences analysis among all employees

We estimate the following regression using the period from three years before to three years after each ownership change event:

$$\begin{aligned} WFI_t^j =& I(Post_{jt} \cdot Treated^j) \cdot \mu_1 + I(Post_{jt} \cdot Treated^j \cdot \Delta Culture_t^j) \cdot \mu_2 \\ &+ X_t^j \cdot \mu_3 + Firm\ FE + \ Year\ FE + \xi_t^j \ . \end{aligned} \tag{2}$$

The dependent variable, WFI_t^j, is the within-firm pay inequality at firm j in year t. $Post_{jt}$ is an indicator variable that is equal to one after a firm's ownership change, and zero otherwise. $Culture_t^j$ is proxied by the estimated owners' countries of origin fixed effects from Table 2. $\Delta Culture_t^j$ is calculated as the difference in cultural value after the owner changes vs. before the owner changes. When a firm has multiple owners after the owner changes, the new owners may not come from the same country. In this case, we use the cultural value with the largest absolute value proxied by the estimated owners' countries of origin fixed effects from Table 2, as the new cultural value after the owner changes. Specifically, $\Delta Culture_t^j$ is equal to one if there is an increase in owner's culture toward more within-firm pay inequality, and it is equal to negative one if there is a negative change in owner's culture toward less within-firm pay inequality. $\Delta Culture_t^j$ is equal to zero if there is no change in owner's culture, and it is thus equal to zero for our control group by construction. $Treated^j$ is an indicator variable that is equal to one if the firm was taken over by owners from a country that is different from a country of prior owners.

Our coefficient of interest is μ_2, which is expected to be positive if the owner's cultural heritage has a causal effect on within-firm pay inequality. Year fixed effects are included to control for macroeconomic conditions. The key improvement of the DiD analysis compared to our baseline analysis is the inclusion of firm fixed effects to control for each firm's unobservable and time-invariant characteristics. Vector X_t^j includes the same set of time-varying firm-level and owner-level control variables as in Table 2. Table 4 Panel A presents the estimates of Equation (2). The estimate of μ_2 is positive and significant at the 5% level, implying an increase in within-firm

pay inequality in firms taken over by immigrant owners from a country with higher within-firm inequality.

A concern with our DiD analysis is the possibility that the occurrence of ownership changes is not random. For example, ownership changes might be caused by deteriorating firm performance, which may affect within-firm pay inequality through changes in the way how firms share economic rents with employees. To address such concerns, we perform tests to examine the parallel-trends assumption required for the validity of the DiD estimator. Specifically, we replace $Post_t$ by Pre_{-3}, Pre_{-2}, *Event year*, $Post_{+1}$, $Post_{+2}$, and $Post_{+3}$. These are indicator variables equal to one if the firm's owners will change in three years, will change in two years, has changed in the current year, changed one year before, changed two years before, and changed three years before, respectively. Pre_{-1} is omitted and serves as a base group before any effect from owner changes might take place.

We report the coefficients of the interaction term $Treated^j \cdot \Delta Culture_t^j$ and the event indicators for the three years before and after an ownership change event in Panel B, and we plot the coefficients in Figure 3 Panel A. We find that the estimated coefficients before the event year are all close to zero and statistically insignificant. In other words, we show that there are no differential trends in the within-firm pay inequality between treated and control firms prior to ownership changes in our sample. After the event year, the estimated coefficients become positive and statistically significant. These results support the parallel trend assumption for our DiD analysis and are inconsistent with the conjecture that omitted variables drive both changes in culture and changes in within-firm pay inequality in our sample. In summary, the results in Table 4 corroborate our baseline findings and suggest that owners' culture affects within-firm pay inequality.

6.B Difference-in-differences analysis among employee stayers

One might argue that ownership changes could be associated with changes in production technology which can affect our inference about a firm's pay inequality through two channels. First, it may lead the firm to demand a different composition of employee skills. To the extent that employee pay is

set in line with skills, it will affect pay inequality within firms. Since a firm typically changes the composition of its employee skills through hiring and firing, this channel is predominantly associated with changes in employee composition. Second, changes in a firm's production technology may have heterogeneous effects on the marginal productivity of the skills possessed by existing employees. To the extent that each employee's pay is related to their marginal productivity, pay inequality will change accordingly.

To mitigate the effect of changes in production technology associated with ownership changes, we repeat the DiD analysis on a subsample of employees who work in the firm both before and after the ownership change ("stayers"). Specifically, we re-compute the within-firm pay inequality using employee stayers. In this way, we effectively mute the channel through which changes in employee composition may affect within-firm pay inequality.[21]

Table 5 Panel A reports the results. We find quantitatively similar effects as in Table 4, indicating that owners' culture affects within-firm pay inequality by changing the pay of existing employees. In Table 5 Panel B, we test the parallel trends assumption of the DiD analysis in the sample of employee stayers. The additional filter of employee stayers substantially reduces the sample size, and we are thus only able to examine employees who stay in the same firm for two years, instead of three years as in Table 4, before and after the ownership change takes place. We plot the associated coefficients in Figure 3 Panel B. Similar to the results in Table 4, the coefficients of the interaction term $Treated^j \cdot \Delta Culture_t^j$ and the event indicators for the years before the ownership change are close to zero and statistically insignificant, while the coefficients become positive and statistically significant after the event year. These results support the parallel trend assumption for our DiD analysis and provide further evidence

[21] Internet Appendix Table IA6 Panel B presents summary statistics for the treated and control firms in the subsample of employee stayers. The average within-firm pay inequality in the treated firms is 0.337, whereas it is 0.312 for the control group. The average treated firm has total assets of $0.819 million, a capital-labor ratio of $55,000, a revenue of $1.8 million, versus untreated firms having mean total assets of $1 million, a capital-labor ratio of $90,000 , and a revenue of $1.951 million. The average age of both treated and control firms is the same at age 9 years since incorporation, and the number of employees is also the same at 14. On average, there are 1.14 owners running the treated firm while 1.82 for the control group. Owners of treated firms own 1.79 businesses on average, while it is 2.15 for owners of control firms. On average, 23.2% of owners in the treated and 26.1% of owners in the control group hold a college degree or higher at the time of immigration. 23.2% of owners are female in the treated group, and 29.6% are female in the control group. The average owner is similar in terms of other observable characteristics such as age, skill, and education level.

consistent with owners' culture affecting within-firm pay inequality.

In Panel C, we repeat the same analysis as in Panel B but replace the dependent variable with the earnings of high-paid stayers and low-paid stayers. We define high-paid (low-paid) stayers as the ones whose earnings are at the top (bottom) decile within their firms. We show that the increase in within-firm pay inequality is predominantly due to the pay reductions for low-paid stayers. High-paid stayers experience a small pay increase on average, but the change is statistically insignificant. These results suggest that the rise in within-firm pay inequality, attributed to the cultural values of owners, may be accompanied by a decline in the overall income earned by employees from the firm. In Internet Appendix Table IA8 we confirm that the share of labor income to value added is lower for firms with more individualistic owners.[22]

6.C Difference-in-differences analysis among employee stayers: Subsample analysis

We perform two additional tests to help further establish the effect of culture on within-firm pay inequality. First, we repeat the DiD analysis from the prior section using the subsample of firms from the Accommodation and Food Services. This industry involves a significant amount of labor and relies on standardized production technology. Such standardization allows for easier comparison between firms and owners, which reinforces our identification assumptions in the DiD analysis. The presence of confounding effects from potential changes in production technology associated with ownership changes is thus minimal. Similarly, we repeat the DiD analysis using the subsample of firms where the change in capital-labor ratio is small. Table 6 Panel A and B present the results. Across different specifications, we continue to find positive and statistically significant coefficients of $Post_{jt} \cdot Treated^{j} \cdot \Delta Culture_{t}^{j}$ with magnitudes that are close to those reported in Table 4 and Table 5.

Last, following Smith et al. (2019), we repeat the DiD analysis using a subsample of firms in which ownership changes are triggered by the death of

[22]Extensive policy research has been carried out to identify the potential causes of the concurrent trends in income inequality and labor income shares. See OECD (2015) for a summary of relevant work.

owners. Since death events are plausibly exogenous and uncorrelated with factors that might affect a firm's pay setting, the setting further mitigates endogeneity concerns. We report the sign and statistical significance of the coefficients in Table 6 Panel C.[23] We find qualitatively similar results to those reported in Table 4 and Table 5: Within-firm pay inequality increases if a firm's new owners are from cultures that are associated with higher inequality. In Internet Appendix Table IA7, we repeat the analysis using a subsample of ownership changes associated with the premature death of owners, which we define to be deaths at the age of 60 or younger. This analysis yields analogous findings to those reported in Table 6 Panel C. Overall, the subsample DiD analyses that we present in this section provide further evidence that is consistent with owners' culture causally affecting within-firm pay inequality.

6.D Difference-in-differences analysis among employee stayers: Individualism

Our analysis so far confirms the effect of owners' culture on within-firm pay inequality. Given our focus on individualism, we perform a similar analysis as in Table 5 Panel A above by replacing $\Delta Culture_t^j$ in the regression specification with $\Delta Individualism_t^j$, which is constructed analogously. $\Delta Individualism_t^j$ takes values +1, 0, -1 according to the sign of the change in Hofstede individualism scores due to changes in owners' countries in owner turnover events. We present the results in Table 7. Consistent with our prior results, we find positive coefficients of the triple interaction term, $Post_{jt} \cdot Treated^j \cdot \Delta Individualism_t^j$, which is consistent with an increase in within-firm pay inequality when more individualistic owners take over the firm. Quantitatively, the magnitude of each coefficient in Table 7 is about 60% of the magnitude of the corresponding coefficient in Table 5 Panel A, which is consistent with individualism being a key cultural determinant of within-firm pay inequality (see Table 3).

[23] Due to the small number of observations used in the regression, the exact magnitudes of the coefficients are suppressed by Statistics Canada to preserve privacy.

7 Individualism and within-firm pay inequality: Economic mechanisms

In this section, we examine channels through which the individualism of the firms' owners can influence within-firm pay inequality.

7.A Pay compression

Individualistic owners put more emphasis on monetary incentives, individual achievement, and individual accountability, but less on group harmony and pay equality. As a result, they may rely more on pay-for-performance compensation, leading to higher pay for higher-ability employees who are likely to perform well. In other words, individualism may reduce *pay compression*, the tendency for some firms that pay employees similarly regardless of the differences in their abilities. To test this channel, we estimate the following employee-firm-year level regression:

$$\begin{aligned} y_t^{i,j} = {} & High\,ability_t^{i,j} \cdot \ \alpha_1 + High\,ability_t^{i,j} \cdot \mathrm{IDV}^j \cdot \alpha_2 + Ability_{pre}^{i,j} \cdot \ \alpha_3 \\ & + X_t^j \cdot \alpha_4 + \ Firm\ FE + \ Year\ FE + \ \epsilon_t^{i,j}. \end{aligned} \tag{3}$$

The dependent variable, $y_t^{i,j}$, is the log earnings of worker i in firm j in year t. Variable IDV^j stands for Hofstede's measure of individualism for a country if firm j's owners immigrated from that country. Variable $Ability_{pre}^{i,j}$ is the worker i's ability in firm j, proxied by her earnings one year prior to joining firm j. $High\,ability_{pre}^{i,j}$ is an indicator variable that equals one if worker i's ability ranked above the median in firm j at time t.[24]

Pay compression implies a smaller effect of the relative (ranking of) employee ability within a firm on employee pay, $y_t^{i,j}$, that is, a small α_1. If individualism reduces pay compression within firms or, equivalently, increases the association between relative employee ability and pay, we should expect a positive α_2, which is our coefficient of interest. To adequately control for the impact of employee ability on current wage, we include both

[24] To have a precise and meaningful measure of ability rank, for this regression we require firms included in the sample to have non-missing ability measure for every employee and require firms to have at least 10 employees.

the ability measure, $Ability_{pre}^{i,j}$, and the within-firm ability rank measure, $High\,ability_{t}^{i,j}$ in the regression.

Table 8 Panel A reports the results. In Column 1, the estimate of α_2 is positive and statistically significant, indicating that high-ability employees have significantly higher relative pay in firms owned by more individualistic owners. In Columns 2, 3, and 4, we include the same set of variables X_t^j and fixed effects as in Table 2 to control for the effects of technological, economic, and institutional conditions on pay setting in firms. We show that the results are robust to using these alternative specifications.

7.B Selection on employee ability

The individualism of firms' owners can affect within-firm earnings inequality also through selection on employee ability. To examine this mechanism, we focus on a subsample of newly hired employees and regress the variance of their abilities on the individualism of their firm owners' countries of origins:

$$\begin{aligned} Var\left(Ability_{pre}^{i,j}\right) = \text{IDV}^j \cdot\ \gamma_1\ +\ X_t^j \cdot \gamma_2\ +\ Industry\ FE\ + \\ Province\ FE\ +\ Year\ FE\ +\ \xi_j^t. \end{aligned} \tag{4}$$

The dependent variable, $Var\left(Ability_{pre}^{i,j}\right)$, measures the variance of new hires' abilities in firm j, where the ability of worker i, $Ability_{pre}^{i,j}$ is measured by her wage one year prior to joining firm j in year t. Variable IDV^j stands for Hofstede's measure of individualism for a country if firm j's owners immigrated from that country. Coefficient γ_1 is our coefficient of interest, and it is expected to be positive if individualistic owners select groups of employees with more dispersed employee ability.[25]

Table 8 Panel B reports the results. In Column 1, we find a higher variance of employee ability in firms owned by more individualistic owners. In Columns 2, 3, and 4, we include the same set of variables X_t^j and fixed effects as in Table 2. In all these specifications, we find similar results, which suggest a robust relationship between owners' individualism and the dispersion of employee ability.

[25]The sample used to estimate this regression is the same as the one used for the baseline.

Overall, we find empirical support for both channels. Consistent with individualistic owners emphasizing monetary incentives, individual achievement, and individual accountability but deprioritizing group harmony and pay equality, pay compression is less in individualist-owned firms. We also find that individualistic owners hire new employees with more dispersed abilities.

8 Conclusions

We examine the impact of culture on within-firm pay inequality by analyzing employee earnings in firms that are wholly owned by immigrants in Canada. Our findings show that the culture that immigrant owners bring from their source countries strongly influences the pay inequality within their firms. Relative to firms owned by U.S. immigrants, firms owned by immigrants from most other countries have significantly smaller pay inequality. Consistent with the argument that individualistic owners emphasize monetary incentives, individual achievement, and individual accountability, while focusing less on group harmony and equal pay, individualism is associated with higher within-firm pay inequality. Our evidence suggests that individualism is a key driver of within-firm pay inequality. We conduct a series of analyses showing that the impact of culture on within-firm pay inequality is likely to be causal. In the difference-in-differences setting, we find an increase in within-firm pay inequality after the firm is taken over by immigrant owners from a more individualistic country.

Overall, our findings suggest that informal institutions such as culture may be important drivers of income inequality. For this reason, the role of informal institutions should be considered in designing firms' management practices, especially for multinational firms. More broadly, this role should also be taken into account in designing public policies aimed at reducing income inequality or lessening its impacts.

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Appendix A Variable definitions

Variable	Definition
# owners	Number of immigrant owners in a firm in a given year.
# workers	Number of workers of a firm in a given year.
% college degrees	# owners of a firm that hold college or up degree / total # owners of a firm in a given year.
% married owners	# married owners of a firm / total # owners of a firm in a given year.
% English-speaking owners	# English-speaking owners of a firm / total # owners of a firm in a given year.
% French-speaking owners	# French-speaking owners of a firm / total # owners of a firm in a given year.
Worker ability	A worker's previous wage one year prior to joining the firm.
Assets	Total of all current, capital, long-term assets, and assets held in trust.
Average number of business owned	Average number of businesses owned by a firm's owners.
Average owner age	Average age of a firm's owners.
Average education	Average education level of a firm's owners based on years of schooling recorded by IMDB at the time of landing.
Average log earnings of employees	Average log earnings of employees in a firm in a given year.
Average skill	Average skill level of a firm's owners based on skill level recorded by IMDB at the time of landing.
Average of WMS scores	Average of all management questions from World Management Survey.
Capital-labor ratio	Total assets / # workers.
Collective relations laws index	Measures the protection of collective relations laws as the average of: (1) Labor union power and (2) Collective disputes. Source: Botero et al. (2004).
Country of origin	Country of origin as record in IMDB.
Culture	Cultural value proxied by the estimated owners' country of origin fixed effects from Table 2 and Internet Appendix Table IA2.
Earnings	Employment income received from a business enterprise, including wages, salaries, and commissions, before deductions, as indicated in Box 14 on the T4 remittance slip. Self-employment income is excluded.
Employee stayers	Employees that stay in the firm both before and after owner changes.
Employment law index	Measures the protection of labor and employment laws as the average of sub-indices: (1) Alternative employment contracts; (2) Cost of increasing hours worked; (3) Cost of firing workers; and (4) Dismissal procedures. Source: Botero et al. (2004).
Event year	Indicator variable that equals 1 if the firm's owners has changed in the current year.
Firm age	Year minus a firm's birth year in which the individual started the business or the business can be distinctly identified.
GDP per capita	The logarithm of each country's average GDP per capita before 2005. GDP per capita is in 2020 U.S. dollars from World Bank.
Has female owners	Indicator variable that equals 1 if a firm has at least one female owner in a given year.
Has managerial skill	Indicator variable that equals 1 if at least one owner has managerial skill.
Has multiple owners	Indicator variable that equals 1 if a firm has multiple owners.
Has professional skill	Indicator variable that equals 1 if at least one owner has professional skill.
Has technical skill	Indicator variable that equals 1 if at least one owner has technical skill.
High ability	Indicator variable that equals 1 if a worker's ability is ranked above the median.
Individualism	Defined by Hofstede and Hofstede (2001).
Industry	NAICS 4-digit industry classification.
Labor income share	Ratio of total payments to workers over the firm's value-added.
Landing duration	Year minus the landing year.
Legal origin: Common law	Indicator variable that equals to 1 if the country's legal origin is English common law following the classification in La Porta et al. (2008).
Masculinity	Defined by Hofstede and Hofstede (2001).
NAICS	North American Classification System (NAICS) code for business.
New hires	Workers who joined the firm in a given year.
Post	Indicator variable that equals 1 after the firm's owners change.
Post_{+1}	Indicator variable that equals 1 if the firm's owners have changed in 1 year before.
Post_{+2}	Indicator variable that equals 1 if the firm's owners have changed in 2 years before.

Post_{+3}	Indicator variable that equals 1 if the firm's owners have changed in 3 years before.
Power distance	Defined by Hofstede and Hofstede (2001).
Pre_{-2}	Indicator variable that equals 1 if the firm's owners will change in 2 years.
Pre_{-3}	Indicator variable that equals 1 if the firm's owners will change in 3 years.
Premature death	Indicator variable that equals 1 if a person dies at the age of 60 or younger.
Province	Province from the business's filing address.
Revenues	Non-farm total revenue. The sum of all revenue amounts reported (items 8000 to 8250).
Rule of law	Perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Source: World Bank.
Share of shadow economy	The estimated share of shadow economy relative to GDP for each country from Schneider et al. (2010).
Treated	Indicator variable that equals 1 if the firm was taken over by owners from a different country and it equals to 0 if the firm was taken over by owners from the same country.
Trust	The fraction of people in a country that choose "can be trusted" to the question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" from the World Value Survey.
Uncertainty avoidance	Defined by Hofstede and Hofstede (2001).
Value added	Sum of payrolls from T4, net income before tax, and capital cost allowance.
Within-firm pay inequality	Variance of a firm's employees' log earnings.
Young immigrant	Indicator variable that equals 1 if the immigrant owner landed in Canada at the age before seven.
ΔCulture	Categorical variables that take the value of 0 if there is no change in owner's culture after the firm's changes in owners; 1 if there is an increase in owner's culture toward more within-firm pay inequality; -1 if there is a negative change in owner's culture toward less within-firm pay inequality. Culture values are proxied by the estimated owners' countries of origin fixed effects from Table 2 and Internet Appendix Table IA2.
ΔIndividualism	Categorical variables that take the value of 0 if there is no change in owner's culture after the firm's changes in owners; 1 if there is an increase in owner's culture toward more within-firm pay inequality; -1 if there is a negative change in owner's culture toward less within-firm pay inequality. Cultural values are proxied by the Hofstede individualism associated with the owner's country.

Figure 1. Variation in within-firm pay inequality by immigrant owners' countries of origin in Canada

This figure plots the Z-scores from Internet Appendix Table IA1 that measure how far the within-firm pay inequality of a country deviates from the overall average within-firm pay inequality in the sample.

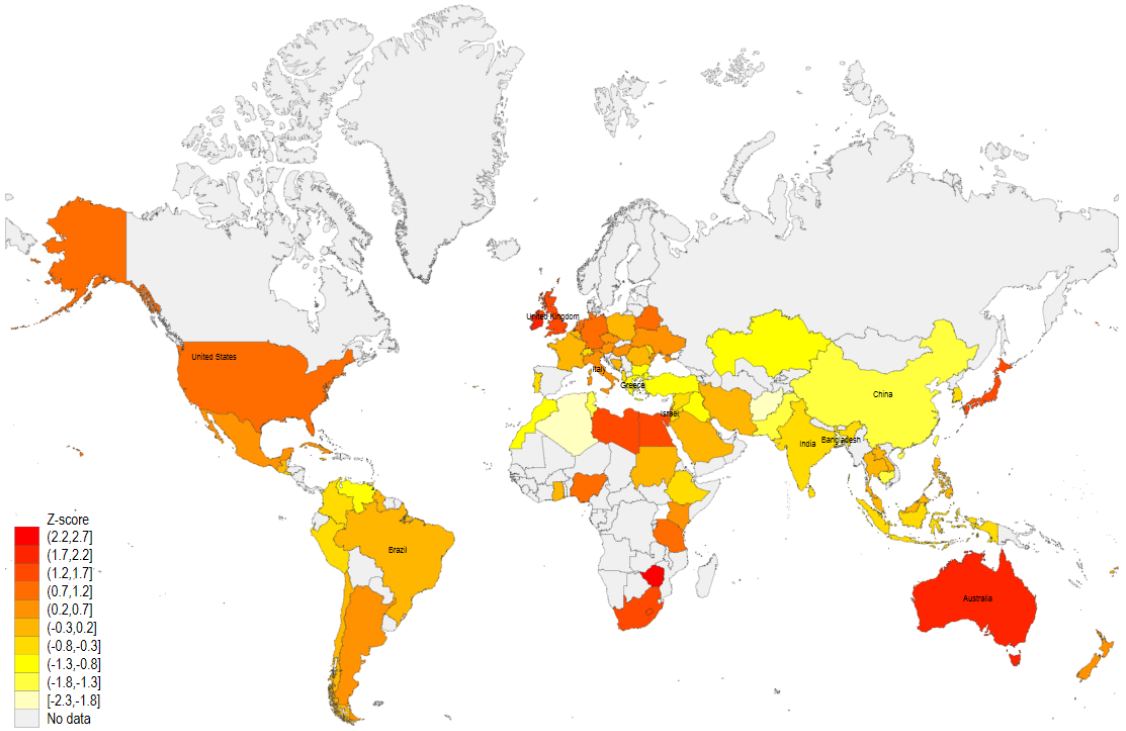


Figure 2. Individualism and within-firm inequality: Role of the owners' countries of origin

This figure plots the within-firm pay inequality by immigrant owners' countries of origin measured using estimated coefficients of the country fixed effects from Column 2 in Internet Appendix Table IA2 against that country's Hofstede's individualism relative to the U.S. Note that due to space constraints, we only report country-of-origin groups with at least 800 unique firms. The size of the circles in the figure represents the number of observations of the corresponding country in our sample. The blue line describes the slope from the univariate regression of the owners' countries of origin fixed effects on individualism, where the regression is weighted by each country's number of observations in our sample.

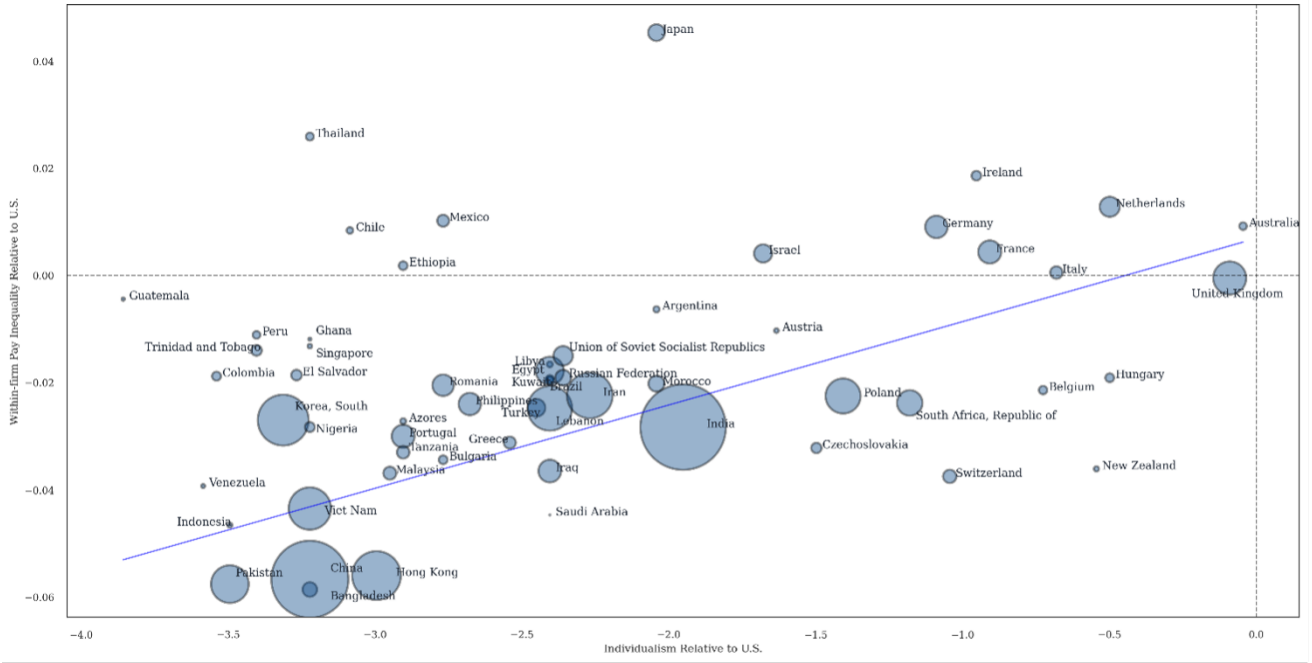
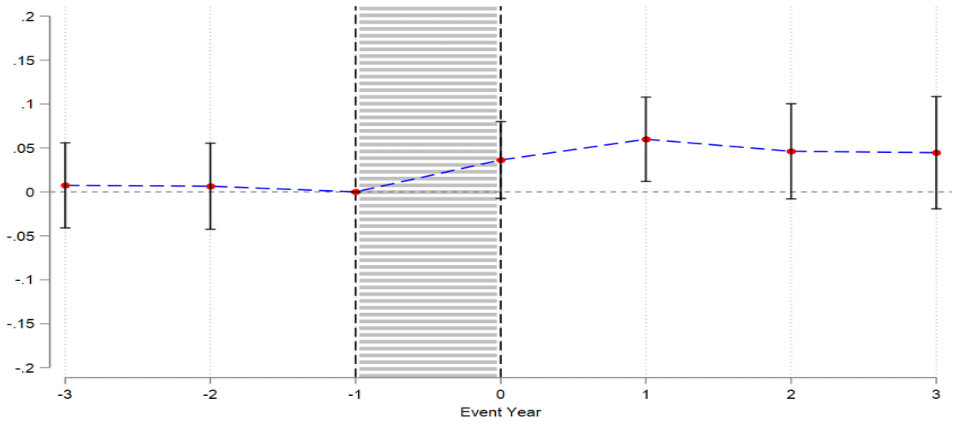


Figure 3. Timing of the effect of a change in the owners' countries of origin on within-firm pay inequality

This figure plots coefficients related to the timing of the effect of a change in the owners' countries of origin on within-firm pay inequality from Table 4 and Table 5. The blue solid line in Panel A and B show the year-by-year coefficient in the difference-in-differences analysis among all employees from Table 4 and among employee stayers from Table 5, respectively. Pre_{-1} is omitted as the benchmark group. The bars delimit the 95% confidence intervals.

Panel A: All employees



Panel B: Employee stayers

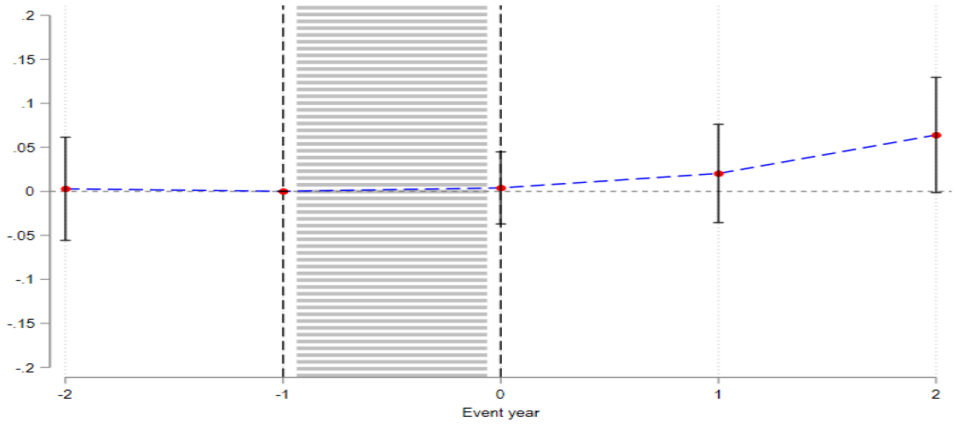


Table 1. Descriptive statistics

This table presents the summary statistics of our sample. The sample consists of 353,120 firm-year observations over the period 2001 – 2017. Details of the sample and variables construction are provided in Section 3. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Observation numbers are rounded to the nearest 5.

Firm characteristics	N	Mean	STD	P25	Median	P75
Within-firm pay inequality	353,120	0.313	0.308	0.102	0.242	0.428
Average log earnings of employees	353,120	9.935	0.509	9.588	9.920	10.278
# employees	353,120	8	74	4	5	8
Assets (in 000's)	352,070	557	950	86	211	557
Capital-labor ratio (in 000's)	352,070	86	159	16	37	87
Revenue (in 000's)	352,070	1,048	1,549	274	515	1,050
Firm age (years)	353,120	8	6	4	7	12
Owner characteristics						
Has multiple owners	353,120	0.32	0.47	0	0	1
# owners	353,120	1.4	0.68	1	1	2
% college degrees	353,120	30.80%	43.70%	0%	0%	100%
Average skill	352,650	4.23	2.13	3	4	6
Average education	352,690	3.66	1.99	2	3.5	6
Average age (years)	344,210	47	9	41	47	53
Average # business owned	353,120	1.78	2.14	1	1	2
Time since landing (years)	353,120	18	8	12	18	23
% female owners	353,120	27.20%	38.00%	0%	0%	50%

Table 2. Owners' countries of origin and within-firm pay inequality

This table examines the relationship between owners' countries of origin and within-firm pay inequality. *Within-firm pay inequality*, is measured as the variance of a firm's employees' log earnings. Panel A presents the regression results between within-firm pay inequality and a firm's owners' country-of-origin group. Due to space constraints, this table only reports selected example country-of-origin groups. We report the full set of coefficients in the Internet Appendix Table IA2. Panel B presents the analysis of variance (ANOVA) to decompose the variance of within-firm pay inequality into variations associated with each independent variable based on Table 2. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * in both panels correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Coefficients of selected owners' countries of origin

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
China	-0.0621***	-0.0567***	-0.0455***	-0.0445***
	(0.0091)	(0.0009)	(0.0090)	(0.0090)
France	0.0026	0.0044	0.0143	0.0155
	(0.0114)	(0.0112)	(0.0113)	(0.0113)
Germany	0.0129	0.0091	0.0087	0.0108
	(0.0124)	(0.0122)	(0.0124)	(0.0125)
Hong Kong	-0.0607***	-0.0560***	-0.0473***	-0.0440***
	(0.0097)	(0.0096)	(0.0096)	(0.0097)
Taiwan	-0.0709***	-0.0683***	-0.0529***	-0.0506***
	(0.0105)	(0.0104)	(0.0104)	(0.0104)
United Kingdom	0.0012	-0.0005	0.0038	0.0063
	(0.0108)	(0.0107)	(0.0107)	(0.0108)
...				
Log (# employees)		0.0313***	0.0146***	0.0147***
		(0.0011)	(0.0016)	(0.0016)
Log (Capital-labor ratio)		0.0166***	0.0099***	0.0099***
		(0.0010)	(0.0009)	(0.0009)
Log (Revenue)			0.0197***	0.0196***
			(0.0012)	(0.0012)
Log (Firm age)			0.0023	0.0025
			(0.0048)	(0.0048)
Log (Firm age)^2			-0.0003	-0.0002
			(0.0014)	(0.0014)
Has multiple owners			-0.0328***	-0.0332***
			(0.0016)	(0.0016)
Average owner skill				-0.0020***
				(0.0004)
Average owner education				0.0039***
				(0.0005)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Observations	353,120	352,070	348,280	347,400
Adj. R-sq	0.036	0.043	0.047	0.047

Panel B: ANOVA analysis of the determinants of within-firm pay inequality

	Partial sum of squares	Degree of freedom	F stat.	Prob. >F
Owner's countries of origin FEs	151.53	85	19.53	0.00
Year FEs	158.67	16	108.62	0.00
Industry FEs	642.16	312	22.54	0.00
Province FEs	66.08	12	60.32	0.00

Table 3. Individualism and within-firm pay inequality

This table examines the relationship between Hofstede's individualism and within-firm pay inequality. Panel A presents country-level regression results of pay inequality on individualism, where the dependent variable is measured using the estimated owners' countries of origin fixed effects. We normalize all the variables to have a standard deviation of one. Panel B presents the firm-year-level regression results of within-firm pay inequality on individualism. Panel C examines how the age of the immigrant owner when she landed affects the relationship between individualism and pay inequality. *Within-firm pay inequality* is measured as the variance of a firm's employees' log earnings. *Young immigrant* is an indicator variable that takes the value of one if the immigrant owner landed in Canada at the age before seven. This sample is limited to firms with only one owner. All financial variables are winsorized at 1% and 99%, and all dollar values are converted to 2002 real values using consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5 in Panel B and C.

Panel A: Within-firm pay inequality estimated using owners' countries of origin fixed effects and individualism

	(1)	(2)	(3)	(4)	(5)	(6)
	Estimated within-firm pay inequality					
Individualism	0.018***	0.015***	0.015***	0.015***	0.017***	0.015***
	(0.002)	(0.002)	(0.003)	(0.003)	(0.004)	(0.004)
Power distance		-0.002	-0.001	-0.004	-0.003	
		(0.003)	(0.003)	(0.003)	(0.004)	
Masculinity		-0.002	-0.002	-0.002	-0.002	
		(0.002)	(0.002)	(0.002)	(0.003)	
Uncertainty avoidance		0.005**	0.005*	0.001	0.002	
		(0.002)	(0.003)	(0.003)	(0.004)	
Trust		-0.003	-0.002	-0.004	-0.002	
		(0.002)	(0.003)	(0.003)	(0.004)	
Log (GDP per capita)			0.001	-0.001	-0.003	
			(0.002)	(0.003)	(0.004)	
Share of shadow economy			0.007	0.031	0.044	
			(0.034)	(0.038)	(0.050)	
Legal origin: Common law				-0.010*	-0.011	
				(0.005)	(0.007)	
Rule of law				0.004	0.006	
				(0.005)	(0.007)	
Employment law index					-0.014	
					(0.026)	
Union law index					0.024	
					(0.026)	
Average of WMS scores						0.006
						(0.004)
Observations	58	58	58	57	47	27
Adj. R-sq	0.529	0.655	0.643	0.654	0.649	0.608

Panel B: Within-firm pay inequality and individualism

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Individualism	0.0824***	0.0722***	0.0608***	0.0595***
	(0.0050)	(0.0049)	(0.0050)	(0.0050)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	318,665	317,700	314,000	313,100
Adj. R-sq	0.034	0.041	0.045	0.046

Panel C: Young immigrants

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Individualism × Young immigrant	-0.0819**	-0.0799**	-0.0755**	-0.0733*
	(0.0392)	(0.0386)	(0.0385)	(0.0386)
Individualism	0.0834***	0.0697***	0.0628***	0.0611***
	(0.0064)	(0.0063)	(0.0064)	(0.0064)
Young immigrant	0.0507**	0.0505**	0.0478**	0.0547***
	(0.0207)	(0.0205)	(0.0204)	(0.0205)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	212,610	211,925	210,480	209,670
Adj. R-sq	0.037	0.045	0.047	0.048

Table 4. Effect of a change in the owners' countries of origin on within-firm pay inequality: All employees

This table presents difference-in-differences analysis on the effect of a change in the owners' countries of origin on within-firm pay inequality among all employees. Panel A presents difference-in-differences results that compare the evolution of within-firm pay inequality around owner turnover events when there is a change in the owners' countries of origin relative to owner turnover events without such changes. The dependent variable, *Within-firm pay inequality*, is measured as the variance of a firm's employees' log earnings. *Treated* is an indicator variable that equals 1 if the firm was taken over by owners from a different country. *Post* is an indicator variable that equals 1 after a firm's change in owner, and zero otherwise. ΔCulture stands for the change in the owner's culture caused by the owner change, which equals 1 if there is an increase in the owner's culture toward more within-firm pay inequality, and -1 if there is a negative change in the owner's culture toward less within-firm pay inequality. *Culture* is proxied by the estimated owners' countries of origin fixed effects from the baseline, and a higher value of Culture indicates a country with higher within-firm pay inequality. Panel B presents regression results that validate the parallel trend assumption of the difference-in-differences analysis. Pre_{-3}, Pre_{-2}, *Event year,* $Post_{+1}$, $Post_{+2}$, $Post_{+3}$. are indicator variables equal to one if the firm's owners will change in 3 years, will change in 2 years, has changed in the current year, changed in 1 year before, changed in 2 years before, and changed in 3 years before, respectively. Pre_{-1} is omitted and treated as our base group. All variables are defined in Appendix A. Standard errors are clustered at the firm level. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Difference-in-differences estimates: All employees

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Post × Treated	0.0009	0.0004	-0.0026	-0.0017
	(0.0168)	(0.0168)	(0.0168)	(0.0168)
Post × Treated × ΔCulture	0.0374**	0.0372**	0.0321**	0.0330**
	(0.0157)	(0.0157)	(0.0157)	(0.0157)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	17,780	17,740	17,465	17,445
Adj. R-sq	0.289	0.291	0.288	0.287

Panel B: Difference-in-differences parallel trends estimates: All employees

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Pre_{-3} × Treated × ΔCulture	0.0074	0.0054	0.0018	0.0035
	(0.0247)	(0.0247)	(0.0250)	(0.0250)
Pre_{-2} × Treated × ΔCulture	0.0064	0.0066	0.0036	0.0053
	(0.0250)	(0.0250)	(0.0254)	(0.0253)
Event year × Treated × ΔCulture	0.0363	0.0369*	0.023	0.0253
	(0.0223)	(0.0222)	(0.0228)	(0.0228)
$Post_{+1}$ × Treated × ΔCulture	0.0599**	0.0607**	0.0482*	0.0512**
	(0.0245)	(0.0245)	(0.0249)	(0.0248)
$Post_{+2}$ × Treated × ΔCulture	0.0462*	0.0460*	0.0365	0.0386
	(0.0276)	(0.0275)	(0.0274)	(0.0274)
$Post_{+3}$ × Treated × ΔCulture	0.0446	0.0422	0.0322	0.0341
	(0.0326)	(0.0330)	(0.0332)	(0.0332)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	17,800	17,740	17,465	17,445
Adj. R-sq	0.288	0.29	0.287	0.287

Table 5. Effect of a change in the owners' countries of origin on within-firm pay inequality: Employee stayers

This table presents difference-in-differences analysis among employee stayers. *Employee stayers* are defined as those employees who work at the firm both before and after an owner turnover event. Panel A presents difference-in-differences regression results on the subsample of employee stayers that compare the evolution of within-pay inequality around owner turnover events when there is a change in the owners' countries of origin relative to owner turnover events without such changes. Panel B presents regression results that validate the parallel trend assumption of the difference-in-differences analysis in Panel A. In Panel C, we repeat the same analysis as in Panel A but replace the dependent variable with the earnings of high-paid stayers and low-paid stayers. We define *High-paid (Low-paid) stayers* as the ones whose earnings are at the top (bottom) decile within their firms. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Difference-in-differences estimates: Employee stayers

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	0.0252	0.0262	0.0244	0.0247
	(0.0236)	(0.0236)	(0.0243)	(0.0243)
Post × Treated × ΔCulture	0.0435*	0.0419*	0.0463**	0.0465**
	(0.0223)	(0.0223)	(0.0230)	(0.0230)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	4,960	4,840	4,780	4,775
Adj. R-sq	0.413	0.415	0.413	0.414

Panel B: Difference-in-differences parallel trends estimates: Employee stayers

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Pre_{-2} × Treated × ΔCulture	0.0029	0.0067	0.0081	0.0078
	(0.030)	(0.030)	(0.032)	(0.031)
Event year × Treated × ΔCulture	0.0039	0.0094	0.0176	0.0179
	(0.021)	(0.021)	(0.022)	(0.022)
$Post_{+1}$ × Treated × ΔCulture	0.0203	0.0247	0.0339	0.0342
	(0.029)	(0.029)	(0.031)	(0.031)
$Post_{+2}$ × Treated × ΔCulture	0.0640*	0.0658*	0.0730**	0.0732**
	(0.033)	(0.034)	(0.035)	(0.035)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	4,960	4,840	4,780	4,775
Adj. R-sq	0.415	0.418	0.416	0.416

Panel C: Difference-in-differences estimates: Earnings of high- vs. low-paid stayers

	(1)	(2)	(3)	(4)
	Log (Earnings)			
	High-paid stayers		Low-paid stayers	
Post × Treated	0.0284	0.0319	0.0057	0.0153
	(0.0265)	(0.0268)	(0.0356)	(0.0364)
Post × Treated × ΔCulture	0.0081	0.0108	-0.0804***	-0.0887***
	(0.0253)	(0.0251)	(0.0338)	(0.0341)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	Yes	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	Yes	No	Yes
Owner skill and education controls	No	Yes	No	Yes
Observations	4,840	4,775	4,840	4,775
Adj. R-sq	0.859	0.861	0.553	0.559

Table 6. Difference-in-differences analysis among employee stayers: Subsample analysis

This table presents subsample difference-in-differences analysis on employee stayers. *Employee stayers* are defined as those employees who work at the firm both before and after an owner turnover event. Panel A presents the results on a subsample of firms operating in the Accommodation and Food Services sector. Panel B presents the results on a subsample of firms where the change of capital-labor ratio is below the bottom quartile of the sample. Panel C presents results on a subsample of firms in which owner turnover events were caused by the death of prior owners. We only report signs and significance levels in Panel C as the coefficients are suppressed by Statistics Canada. In all panels, we compare the evolution of pay inequality around owner turnover events when there is a change in the owners' countries of origin relative to ones without such changes. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Subsample of the 'Accommodation and Food Services' sector (NAICS 72)

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	0.0133	0.0152	0.0109	0.0072
	(0.0294)	(0.0294)	(0.0299)	(0.0292)
Post × Treated × ΔCulture	0.0508*	0.0497*	0.0507*	0.0555**
	(0.0274)	(0.0271)	(0.0281)	(0.0275)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	1,160	1,155	1,155	1,155
Adj. R-sq	0.407	0.407	0.407	0.406

Panel B: Subsample of firms with small change of capital-labor ratio

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	0.0112	0.0108	0.0170	0.0099
	(0.0249)	(0.0246)	(0.0246)	(0.0242)
Post × Treated × ΔCulture	0.0561**	0.0536**	0.0533**	0.0603***
	(0.0224)	(0.0219)	(0.0219)	(0.0207)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	1,440	1,440	1,420	1,420
Adj. R-sq	0.377	0.379	0.391	0.395

Panel C: Subsample of owners' deaths

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	+	-	-	-
Post × Treated × ΔCulture	+**	+**	+*	+*
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes

Table 7. Difference-in-differences analysis among employee stayers: Individualism

This table presents the difference-in-differences analysis on employee stayers using Hofstede's individualism as the culture measure. *Employee stayers* are defined as those employees who work at the firm both before and after an owner turnover event. ΔIndividualism stands for the change in the owner's culture caused by the owner change, which equals to 1 if there is an increase in the owner's culture toward higher individualism, and -1 if there is a negative change in the owner's culture toward less individualism. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	-0.002	0.005	0.0055	0.0054
	(0.0202)	(0.0202)	(0.0209)	(0.0209)
Post × Treated × ΔIndividualism	0.0276*	0.0273*	0.0247*	0.0249*
	(0.0145)	(0.0144)	(0.0146)	(0.0147)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	4,960	4,840	4,780	4,775
Adj. R-sq	0.412	0.414	0.412	0.413

Table 8. Individualism and within-firm pay inequality: Economic mechanisms

This table examines the mechanisms through which individualism affects within-firm pay inequality. *Individualism* in both panels is measured using the Hofstede individualism for each of the firm owner's country of origin. Panel A examines how pay compression within firms varies with individualism. The analysis is at the individual employee level. The dependent variable is the logarithm of earnings of an employee in each year. *High ability* is an indicator variable that takes the value of one if an employee's ability ranked above the median in the firm at a given year, where *ability* is proxied by a worker's wage prior to joining the firm. Panel B examines how selection on employee ability varies with individualism based on a subsample of newly hired employees. The dependent variable is the *Variance of new hires' ability* in each firm-year, where *ability* is defined in the same way as Panel A. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Pay compression

	(1)	(2)	(3)	(4)
	Log (Earnings)			
High ability × Individualism	0.2096***	0.2097***	0.2045***	0.2044***
	(0.0541)	(0.0541)	(0.0543)	(0.0543)
High ability	0.0443	0.0446	0.0464	0.0464
	(0.0288)	(0.0288)	(0.0290)	(0.0290)
Ability	0.3100***	0.3099***	0.3099***	0.3100***
	(0.0147)	(0.0146)	(0.0147)	(0.0147)
Firm, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	13,190	13,190	13,005	13,005
Adj. R-sq	0.534	0.534	0.534	0.534

Panel B: Selection on employee ability

	(1)	(2)	(3)	(4)
	Variance (New hires' ability)			
Individualism	0.0783***	0.0723***	0.0670***	0.0666***
	(0.0140)	(0.0140)	(0.0143)	(0.0143)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	32,520	32,410	32,060	31,980
Adj. R-sq	0.036	0.037	0.037	0.037

INTERNET APPENDIX

(For Online Publication)

Owner Culture and Pay Inequality within Firms

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Table IA1. Additional descriptive statistics

The sample consists of 353,120 firm-year observations over the period 2001 – 2017. Panel A presents sample composition by a firm's owners' country of origin. Panel B tabulates the sample composition over time. Panel C presents sample composition by NAICS 2-digit industry sectors. Details of the sample and variables construction are provided in Section 3. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. Appendix A defines the variables. Observation numbers are rounded to the nearest 5.

Panel A: Sample composition by owners' country of origin

Nation	N	# unique firms	Within-firm pay inequality			Landing duration (in years)	
			Mean	STD	Z-score	Mean	STD
Afghanistan	3,215	844	0.2657	0.2591	-1.9	17	6
Albania	605	211	0.3140	0.3450	-0.5	11	5
Algeria	1,365	352	0.2697	0.2372	-1.8	16	6
Argentina	560	140	0.3419	0.3288	0.4	18	7
Australia	715	174	0.3905	0.3510	1.8	14	8
Austria	440	79	0.3537	0.2533	0.7	21	8
Azores	565	115	0.3161	0.3123	-0.4	26	5
Bangladesh	1,880	488	0.2539	0.2453	-2.3	17	7
Belarus	210	66	0.3681	0.3424	1.2	11	5
Belgium	845	159	0.3234	0.3378	-0.2	19	9
Bosnia and Herzegovina	885	212	0.3334	0.3443	0.1	16	5
Brazil	685	185	0.3280	0.3141	0.0	15	7
Bulgaria	870	205	0.3041	0.3259	-0.8	16	6
Cambodia	2,365	483	0.2811	0.2621	-1.5	24	7
Chile	610	149	0.3368	0.3611	0.2	21	7
China	45,825	12,247	0.2733	0.2763	-1.7	15	7
Colombia	870	264	0.3164	0.2950	-0.4	13	7
Cuba	315	85	0.3540	0.3227	0.7	15	7
Czechoslovakia	1,150	221	0.3407	0.3604	0.3	24	6
Egypt	6,585	1,548	0.3797	0.3522	1.5	18	7
El Salvador	1,160	287	0.3186	0.2884	-0.3	22	6
Ethiopia	840	197	0.3151	0.3392	-0.4	20	7
Fiji	940	212	0.3359	0.3054	0.2	21	7
France	4,440	1,029	0.3272	0.3018	-0.1	15	8
Germany	4,310	827	0.3657	0.3354	1.1	19	8
Ghana	335	91	0.3356	0.3647	0.2	18	6
Greece	1,435	274	0.2924	0.2681	-1.1	23	7
Guatemala	355	98	0.3360	0.3146	0.2	20	7
Guyana	2,400	498	0.3358	0.3161	0.2	23	7
Hong Kong	19,155	3,743	0.3037	0.3038	-0.8	19	6
Hungary	895	197	0.3467	0.3381	0.5	20	8
India	58,320	13,993	0.3153	0.3062	-0.4	18	8
Indonesia	460	98	0.3153	0.3095	-0.4	17	8
Iran	16,715	3,877	0.3263	0.3082	-0.1	18	7
Iraq	4,390	1,092	0.2977	0.2840	-1.0	17	6
Ireland	1,010	192	0.4014	0.3831	2.2	20	8
Israel	2,895	647	0.3566	0.3128	0.8	19	9
Italy	1,500	304	0.3454	0.3383	0.5	21	8
Jamaica	965	249	0.3260	0.3365	-0.1	23	7
Japan	2,365	405	0.3837	0.2999	1.6	17	8
Jordan	775	217	0.3118	0.2823	-0.5	16	7
Kazakhstan	355	119	0.2999	0.3142	-0.9	12	4
Kenya	1,515	307	0.3502	0.3186	0.6	21	7
Korea, South	20,235	4,782	0.3053	0.2814	-0.7	14	7
Kuwait	790	219	0.3240	0.3432	-0.2	17	7
Laos	460	98	0.3216	0.2826	-0.2	28	5
Lebanon	16,215	3,556	0.2963	0.2677	-1.0	19	7
Libya	530	160	0.3762	0.4358	1.4	11	6
Macao	365	81	0.2852	0.2354	-1.3	19	6

Malaysia	1,580	319	0.3254	0.3436	-0.1	20	7
Mauritius	465	83	0.3543	0.4066	0.8	22	7
Mexico	1,380	376	0.3446	0.3603	0.5	15	9
Moldova	255	110	0.3151	0.3101	-0.4	12	5
Morocco	2,265	575	0.3019	0.2689	-0.8	19	8
Netherlands	3,560	669	0.3652	0.3661	1.1	20	8
New Zealand	480	104	0.3388	0.2922	0.3	19	9
Nigeria	990	268	0.3698	0.3800	1.2	13	7
Pakistan	11,310	3,179	0.2757	0.2650	-1.6	15	6
Peru	720	175	0.3204	0.2857	-0.3	18	7
Philippines	4,245	1,009	0.3234	0.3340	-0.2	19	7
Poland	10,210	1,933	0.3361	0.3497	0.2	22	6
Portugal	4,515	824	0.3121	0.3416	-0.5	22	6
Romania	3,915	907	0.3361	0.3283	0.2	18	7
Russian Federation	2,215	660	0.3342	0.3442	0.1	12	5
Saudi Arabia	260	93	0.3218	0.3384	-0.2	16	7
Singapore	415	91	0.3472	0.4134	0.5	18	8
Republic of South Africa	5,425	1,101	0.3802	0.4075	1.5	15	8
Sri Lanka	5,610	1,379	0.3108	0.2881	-0.6	18	6
Sudan	715	143	0.3305	0.2807	0.0	16	6
Switzerland	1,730	324	0.3054	0.3118	-0.7	20	8
Syria	2,960	701	0.3199	0.2963	-0.3	20	7
Taiwan	6,705	1,374	0.2842	0.2775	-1.4	17	6
Tanzania	1,555	292	0.3575	0.3315	0.9	23	7
Thailand	785	186	0.3354	0.2900	0.2	16	8
Trinidad and Tobago	1,145	277	0.3310	0.3203	0.0	20	7
Tunisia	700	200	0.2830	0.2270	-1.4	13	6
Turkey	2,735	723	0.2996	0.2733	-0.9	18	8
Uganda	430	83	0.4249	0.3410	2.9	21	8
Ukraine	1,595	482	0.3432	0.3773	0.4	13	5
Union of Soviet Socialist Republics	3,210	702	0.3473	0.3514	0.5	21	7
United Kingdom	8,980	1,905	0.3718	0.3540	1.3	20	9
United States	4,610	992	0.3688	0.3572	1.2	18	9
Venezuela	380	117	0.2911	0.2676	-1.2	14	8
Viet Nam	14,670	3,364	0.2768	0.2734	-1.6	24	7
Yugoslavia	3,265	743	0.3386	0.3276	0.3	19	6
Zimbabwe	440	89	0.4067	0.4097	2.3	17	8

Panel B: Sample composition over time

Year	Frequency	Mean	Median
2001	8,205	0.3365	0.2621
2002	9,415	0.3470	0.2739
2003	10,785	0.3403	0.2640
2004	12,105	0.3498	0.2730
2005	13,505	0.3498	0.2723
2006	14,425	0.3514	0.2693
2007	15,610	0.3448	0.2676
2008	19,445	0.3322	0.2542
2009	21,155	0.3303	0.2537
2010	22,370	0.3273	0.2554
2011	23,330	0.3091	0.2402
2012	24,140	0.2951	0.2300
2013	28,190	0.2920	0.2248
2014	30,090	0.2910	0.2265
2015	31,805	0.2920	0.2283
2016	33,595	0.2955	0.2326
2017	34,975	0.2939	0.2297
Total	353,120	0.3134	0.2424

Panel C. Sample composition by NAICS 2-digit industry sectors

NAICS	Sector	N	# unique firms	Within-firm pay inequality		# employees		Revenue (in 000's)	
				Mean	STD	Mean	STD	Mean	STD
11	Agriculture, forestry, fishing and hunting	5,265	1,027	0.2858	0.3178	13	26	672	1,252
21	Mining, quarrying, and oil and gas extraction	340	88	0.4486	0.4205	13	34	2016	2,374
22	Utilities	80	22	0.4144	0.3737	13	15	2044	2,368
23	Construction	29,540	7,667	0.3355	0.3463	7	8	888	1,290
31	Manufacturing	7,300	1,541	0.2939	0.2499	11	14	1055	1,547
32	Manufacturing	5,335	1,062	0.3207	0.2678	10	12	1296	1,573
33	Manufacturing	11,140	2,198	0.3362	0.3120	11	33	1292	1,679
41	Wholesale trade	24,245	5,103	0.3227	0.3244	10	185	2234	2,426
44	Retail trade	57,030	13,105	0.3194	0.2977	8	21	1630	1,950
45	Retail trade	8,340	2,236	0.2897	0.2809	6	8	866	1,152
48	Transportation and warehousing	10,685	3,151	0.3268	0.3498	8	15	1933	2,292
49	Transportation and warehousing	1,305	382	0.3055	0.3019	7	8	1000	1,398
51	Information and cultural industries	2,295	638	0.3562	0.3543	9	13	1154	1,725
52	Finance and insurance	4,180	1,078	0.3466	0.3655	17	478	848	1,656
53	Real estate and rental and leasing	5,515	1,563	0.3327	0.3584	8	97	737	1,364
54	Professional, scientific and technical services	24,115	6,872	0.3603	0.3754	7	20	675	1,093
55	Management of companies and enterprises	1,005	274	0.3646	0.3666	8	12	876	1,529
56	Administrative and support, waste management and remediation services	16,310	3,928	0.3127	0.2987	12	23	1077	1,660
62	Health care and social assistance	32,225	6,749	0.3547	0.3676	7	14	670	601
71	Arts, entertainment and recreation	1,715	472	0.3360	0.2992	8	13	686	992
72	Accommodation and food services	81,265	19,828	0.2717	0.2307	8	9	547	606
81	Other services (except public administration)	23,870	5,651	0.2841	0.2869	6	6	491	660
91	Public administration	35	11	0.4778	0.3447	6	2	818	1029

Table IA2. Owners' country of origin and within-firm pay inequality

This table examines the relationship between owners' countries of origin and within-firm pay inequality. *Within-firm pay inequality* is measured as the variance of a firm's employees' log earnings. Panel A presents the regression results between within-firm pay inequality and a firm's owners' country-of-origin group. Panel B reports the correlation coefficients of the estimated owners' countries of origin fixed effects across specifications in Panel A. Panel C and D present additional ANOVA results. Panel C includes group-level factors with interaction fixed effects. Panel D includes group-level factors and other continuous covariates included in Panel A. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * in both panels correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Owners' countries of origin and within-firm pay inequality

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Afghanistan	-0.0564***	-0.0447***	-0.0381***	-0.0356***
	(0.0110)	(0.0109)	(0.0109)	(0.0109)
Albania	-0.0228	-0.0116	-0.00272	-0.00260
	(0.0214)	(0.0213)	(0.0211)	(0.0211)
Algeria	-0.0405***	-0.0342***	-0.0239*	-0.0249*
	(0.0132)	(0.0131)	(0.0129)	(0.0130)
Argentina	-0.0145	-0.0063	-0.0013	0.0011
	(0.0211)	(0.0210)	(0.0210)	(0.0210)
Australia	0.0121	0.0092	0.0082	0.0077
	(0.0198)	(0.0197)	(0.0196)	(0.0196)
Austria	-0.0028	-0.0103	-0.0014	0.0015
	(0.0216)	(0.0217)	(0.0225)	(0.0226)
Azores	-0.0250	-0.0272	-0.0239	-0.0162
	(0.0209)	(0.0210)	(0.0206)	(0.0205)
Bangladesh	-0.0705***	-0.0586***	-0.0484***	-0.0493***
	(0.0117)	(0.0116)	(0.0116)	(0.0116)
Belarus	0.0042	0.0133	0.0195	0.0176
	(0.0301)	(0.0304)	(0.0304)	(0.0305)
Belgium	-0.0179	-0.0214	-0.0111	-0.0085
	(0.0264)	(0.0269)	(0.0286)	(0.0284)
Bosnia and Herzegovina	-0.0235	-0.0153	-0.0080	-0.0061
	(0.0180)	(0.0182)	(0.0180)	(0.0180)
Brazil	-0.0228	-0.0193	-0.0118	-0.0105
	(0.0199)	(0.0201)	(0.0196)	(0.0198)
Bulgaria	-0.0390**	-0.0344**	-0.0243	-0.0244
	(0.0167)	(0.0168)	(0.0167)	(0.0167)
Cambodia	-0.0350***	-0.0303**	-0.0237*	-0.0181
	(0.0124)	(0.0124)	(0.0124)	(0.0124)
Chile	-0.00520	0.00839	0.0141	0.0175
	(0.0207)	(0.0204)	(0.0205)	(0.0205)
China	-0.0621***	-0.0567***	-0.0455***	-0.0445***
	(0.0091)	(0.0090)	(0.0090)	(0.0090)
Colombia	-0.0270*	-0.0188	-0.0072	-0.0086
	(0.0152)	(0.0150)	(0.0151)	(0.0152)
Cuba	-0.0058	-0.0045	-0.0016	-0.0032
	(0.0244)	(0.0244)	(0.0246)	(0.0247)
Czechoslovakia	-0.0342*	-0.0322*	-0.0234	-0.0219
	(0.0176)	(0.0176)	(0.0175)	(0.0174)
Egypt	-0.0202*	-0.0178	-0.0073	-0.0088
	(0.0115)	(0.0114)	(0.0113)	(0.0113)
El Salvador	-0.0315**	-0.0186	-0.0131	-0.0094
	(0.0144)	(0.0142)	(0.0140)	(0.0142)
Ethiopia	-0.0150	0.0018	0.0104	0.0131
	(0.0273)	(0.0274)	(0.0274)	(0.0275)

Fiji	-0.0244	-0.0152	-0.0078	-0.0045
	(0.0178)	(0.0176)	(0.0174)	(0.0174)
France	0.0026	0.0044	0.0143	0.0155
	(0.0114)	(0.0112)	(0.0113)	(0.0113)
Germany	0.0129	0.0091	0.0087	0.0108
	(0.0124)	(0.0122)	(0.0124)	(0.0125)
Ghana	-0.0223	-0.0119	-0.0111	-0.0100
	(0.0311)	(0.0315)	(0.0317)	(0.0317)
Greece	-0.0337**	-0.0312**	-0.0324**	-0.0263*
	(0.0142)	(0.0141)	(0.0139)	(0.0139)
Guatemala	-0.0126	-0.0044	0.0034	0.0061
	(0.0276)	(0.0275)	(0.0273)	(0.0274)
Guyana	-0.0116	-0.0100	-0.0060	-0.0016
	(0.0131)	(0.0130)	(0.0130)	(0.0131)
Hong Kong	-0.0607***	-0.0560***	-0.0473***	-0.0440***
	(0.0097)	(0.0096)	(0.0096)	(0.0097)
Hungary	-0.0238	-0.0191	-0.0158	-0.0137
	(0.0181)	(0.0182)	(0.0182)	(0.0181)
India	-0.0310***	-0.0283***	-0.0177**	-0.0185**
	(0.0091)	(0.0090)	(0.0090)	(0.0090)
Indonesia	-0.0477*	-0.0466*	-0.0347	-0.0337
	(0.0277)	(0.0276)	(0.0284)	(0.0284)
Iran	-0.0257***	-0.0224**	-0.0147	-0.0136
	(0.0096)	(0.0095)	(0.0095)	(0.0095)
Iraq	-0.0461***	-0.0365***	-0.0282***	-0.0273**
	(0.0110)	(0.0108)	(0.0108)	(0.0108)
Ireland	0.0216	0.0186	0.0180	0.0196
	(0.0235)	(0.0238)	(0.0240)	(0.0239)
Israel	0.0037	0.0041	0.0040	0.0076
	(0.0130)	(0.0129)	(0.0129)	(0.0130)
Italy	0.0020	0.0005	0.0036	0.0091
	(0.0151)	(0.0149)	(0.0150)	(0.0151)
Jamaica	-0.0155	-0.0063	-0.0006	0.0027
	(0.0184)	(0.0183)	(0.0183)	(0.0184)
Japan	0.0430***	0.0453***	0.0543***	0.0564***
	(0.0147)	(0.0145)	(0.0144)	(0.0144)
Jordan	-0.0343**	-0.0245	-0.0189	-0.0180
	(0.0169)	(0.0165)	(0.0165)	(0.0165)
Kazakhstan	-0.0477**	-0.0319	-0.0230	-0.0248
	(0.0234)	(0.0228)	(0.0227)	(0.0228)
Kenya	-0.0330**	-0.0336**	-0.0295*	-0.0275*
	(0.0163)	(0.0160)	(0.0160)	(0.0160)
Korea, South	-0.0288***	-0.0270***	-0.0079	-0.0087
	(0.0094)	(0.0093)	(0.0093)	(0.0093)
Kuwait	-0.0234	-0.0196	-0.0194	-0.0185
	(0.0197)	(0.0190)	(0.0190)	(0.0189)
Laos	-0.0110	-0.0078	0.0024	0.0085
	(0.0229)	(0.0223)	(0.0221)	(0.0223)
Lebanon	-0.0299***	-0.0248***	-0.0196**	-0.0170*
	(0.0095)	(0.0094)	(0.0094)	(0.0094)
Libya	-0.0212	-0.0166	-0.0125	-0.0124
	(0.0273)	(0.0269)	(0.0268)	(0.0269)
Macao	-0.0679***	-0.0663***	-0.0602***	-0.0572***
	(0.0198)	(0.0193)	(0.0196)	(0.0198)
Malaysia	-0.0384**	-0.0369**	-0.0308*	-0.0283*
	(0.0170)	(0.0170)	(0.0170)	(0.0170)
Mauritius	-0.0114	-0.0114	-0.0039	-0.0030
	(0.0501)	(0.0497)	(0.0496)	(0.0495)
Mexico	0.0040	0.0102	0.0161	0.0159
	(0.0182)	(0.0181)	(0.0182)	(0.0183)
Moldova	-0.0195	-0.0015	0.0084	0.0063
	(0.0256)	(0.0255)	(0.0257)	(0.0257)
Morocco	-0.0241*	-0.0202	-0.0170	-0.0160
	(0.0126)	(0.0125)	(0.0124)	(0.0125)
Netherlands	0.0184	0.0128	0.0180	0.0209

	(0.0133)	(0.0133)	(0.0146)	(0.0146)
New Zealand	-0.0379*	-0.0361*	-0.0365*	-0.0342
	(0.0217)	(0.0217)	(0.0214)	(0.0215)
Nigeria	-0.0323*	-0.0283	-0.0200	-0.0216
	(0.0195)	(0.0197)	(0.0195)	(0.0196)
Pakistan	-0.0671***	-0.0576***	-0.0472***	-0.0487***
	(0.0095)	(0.0094)	(0.0094)	(0.0094)
Peru	-0.0168	-0.0111	-0.0062	-0.0051
	(0.0170)	(0.0168)	(0.0162)	(0.0163)
Philippines	-0.0324***	-0.0240**	-0.0113	-0.0131
	(0.0123)	(0.0122)	(0.0122)	(0.0122)
Poland	-0.0262**	-0.0225**	-0.0164	-0.0155
	(0.0105)	(0.0103)	(0.0103)	(0.0103)
Portugal	-0.0342***	-0.0300**	-0.0228*	-0.0138
	(0.0118)	(0.0117)	(0.0116)	(0.0117)
Romania	-0.0261**	-0.0205*	-0.0123	-0.0108
	(0.0115)	(0.0115)	(0.0115)	(0.0115)
Russian Federation	-0.0291**	-0.0191	-0.0122	-0.0135
	(0.0140)	(0.0137)	(0.0136)	(0.0136)
Saudi Arabia	-0.0500**	-0.0447*	-0.0411*	-0.0383
	(0.0238)	(0.0240)	(0.0243)	(0.0244)
Singapore	-0.0171	-0.0132	-0.0085	-0.0071
	(0.0373)	(0.0372)	(0.0372)	(0.0373)
Republic of South Africa	-0.0248*	-0.0238*	-0.0195	-0.0182
	(0.0131)	(0.0130)	(0.0130)	(0.0130)
Sri Lanka	-0.0283**	-0.0230**	-0.0181*	-0.0157
	(0.0111)	(0.0110)	(0.0110)	(0.0110)
Sudan	-0.0195	-0.0107	-0.0049	-0.0075
	(0.0163)	(0.0163)	(0.0162)	(0.0161)
Switzerland	-0.0359**	-0.0375***	-0.0274*	-0.0248*
	(0.0143)	(0.0143)	(0.0149)	(0.0149)
Syria	-0.0225*	-0.0173	-0.0121	-0.0090
	(0.0118)	(0.0117)	(0.0116)	(0.0117)
Taiwan	-0.0709***	-0.0683***	-0.0529***	-0.0506***
	(0.0105)	(0.0104)	(0.0104)	(0.0104)
Tanzania	-0.0320**	-0.0330**	-0.0256	-0.0214
	(0.0162)	(0.0162)	(0.0161)	(0.0162)
Thailand	0.0188	0.0259	0.0357*	0.0346*
	(0.0196)	(0.0197)	(0.0196)	(0.0197)
Trinidad and Tobago	-0.0181	-0.0140	-0.0093	-0.0068
	(0.0159)	(0.0156)	(0.0156)	(0.0156)
Tunisia	-0.0354**	-0.0309**	-0.0251*	-0.0264*
	(0.0143)	(0.0136)	(0.0135)	(0.0135)
Turkey	-0.0327***	-0.0247**	-0.0194	-0.0169
	(0.0125)	(0.0124)	(0.0123)	(0.0123)
Uganda	0.0307	0.0280	0.0291	0.0295
	(0.0263)	(0.0262)	(0.0259)	(0.0261)
Ukraine	-0.0165	-0.0015	0.0030	0.0019
	(0.0152)	(0.0149)	(0.0150)	(0.0150)
Union of Soviet Socialist Republics	-0.0166	-0.0150	-0.0126	-0.0112
	(0.0126)	(0.0125)	(0.0124)	(0.0124)
United Kingdom	0.0012	-0.0005	0.0038	0.0063
	(0.0108)	(0.0107)	(0.0107)	(0.0108)
Venezuela	-0.0485**	-0.0393**	-0.0291	-0.0297
	(0.0203)	(0.0199)	(0.0201)	(0.0201)
Viet Nam	-0.0501***	-0.0435***	-0.0350***	-0.0291***
	(0.0096)	(0.0095)	(0.0095)	(0.0096)
Yugoslavia	-0.0271**	-0.0219*	-0.0167	-0.0145
	(0.0117)	(0.0115)	(0.0115)	(0.0115)
Zimbabwe	0.0050	0.0051	0.0043	0.0065
	(0.0407)	(0.0409)	(0.0408)	(0.0407)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes

Observations	353,120	352,070	348,280	347,395
Adj. R-sq	0.036	0.043	0.047	0.047

Panel B: Correlations of coefficients of owners' countries of origin across different specifications

	Coefficient (1)	Coefficient (2)	Coefficient (3)	Coefficient (4)
Coefficient (1)	1.0000			
Coefficient (2)	0.970***	1.0000		
Coefficient (3)	0.942***	0.984***	1.0000	
Coefficient (4)	0.949***	0.983***	0.993***	1.0000

Panel C: Group-level factors with more detailed fixed effects

	Partial sum of squares	Degree of freedom	F stat.	Prob. >F
Owner's countries of origin FEs	140.2	85	18.19	0
Year × Industry FEs	478.93	4,719	1.12	0
Year × Province FEs	31.48	207	1.68	0
Province × Industry FEs	294.92	1,373	2.37	0

Panel D: Group-level factors and continuous covariates

	Partial sum of squares	Degree of freedom	F stat.	Prob. >F
Owner's countries of origin FEs	107.8	85	14.08	0
Year FEs	173.64	16	120.45	0
Industry FEs	446.28	311	15.93	0
Province FEs	60.31	12	55.78	0
Log (# employees)	14.84	1	164.7	0
Log (Capital-labor ratio)	28.88	1	320.57	0
Log (Revenue)	55.15	1	612.17	0
Log (Firm age)	0.04	1	0.39	0.53
Log (Firm age)^2	0	1	0.04	0.83
Has multiple owners	75.82	1	841.54	0
Average owner skill	4.35	1	48.26	0
Average owner education	13.02	1	144.46	0

Table IA3. Owners' culture and within-firm pay inequality: Alternative specifications

This table presents regression results that examine the relationship between owners' culture and within-firm pay inequality using alternative specifications. *Within-firm pay inequality* is measured as the variance of a firm's employees' log earnings. Panel A presents the results that examine the relationship between owners' countries of origin and within-firm pay inequality when we include interacted fixed effects. Due to space constraints, this table only reports country-of-origin groups with at least 800 unique firms. Panel B presents the results that examine the relationship between owners' individualism culture and within-firm pay inequality when we include additional control variables. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Interacted fixed effects (# unique firms > 800)

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Afghanistan	-0.0550***	-0.0444***	-0.0386***	-0.0367***
	(0.0114)	(0.0112)	(0.0112)	(0.0112)
China	-0.0627***	-0.0580***	-0.0478***	-0.0469***
	(0.0095)	(0.0094)	(0.0093)	(0.0094)
Egypt	-0.0206*	-0.0183	-0.0091	-0.0107
	(0.0119)	(0.0118)	(0.0117)	(0.0117)
France	-0.0017	0.0005	0.0101	0.0111
	(0.0118)	(0.0116)	(0.0116)	(0.0116)
Germany	0.0154	0.0109	0.0115	0.0129
	(0.0129)	(0.0127)	(0.0129)	(0.0129)
Hong Kong	-0.0607***	-0.0570***	-0.0493***	-0.0464***
	(0.0101)	(0.0100)	(0.0100)	(0.0100)
India	-0.0313***	-0.0295***	-0.0198**	-0.0209**
	(0.0095)	(0.0093)	(0.0093)	(0.0093)
Iran	-0.0259***	-0.0231**	-0.0163*	-0.0155
	(0.0099)	(0.0098)	(0.0098)	(0.0098)
Iraq	-0.0478***	-0.0395***	-0.0324***	-0.0318***
	(0.0113)	(0.0112)	(0.0111)	(0.0111)
Korea, South	-0.0296***	-0.0283***	-0.0101	-0.011
	-0.0098	-0.0097	-0.0097	-0.0097
Lebanon	-0.0293***	-0.0252**	-0.0208**	-0.0186*
	(0.0099)	(0.0098)	(0.0097)	(0.0098)
Pakistan	-0.0667***	-0.0582***	-0.0486***	-0.0502***
	(0.0100)	(0.0098)	(0.0098)	(0.0098)
Philippines	-0.0329***	-0.0260**	-0.0143	-0.0162
	(0.0127)	(0.0126)	(0.0126)	(0.0126)
Poland	-0.0279**	-0.0249**	-0.0195*	-0.0187*
	(0.0109)	(0.0107)	(0.0107)	(0.0107)
Portugal	-0.0355***	-0.0308**	-0.0248**	-0.0163
	(0.0125)	(0.0123)	(0.0122)	(0.0123)
Romania	-0.0266**	-0.0212*	-0.0139	-0.0126
	(0.0119)	(0.0119)	(0.0118)	(0.0118)
Republic of South Africa	-0.0272**	-0.0273**	-0.0231*	-0.0216
	(0.0137)	(0.0136)	(0.0136)	(0.0136)
Sri Lanka	-0.0300***	-0.0258**	-0.0214*	-0.0193*
	(0.0115)	(0.0113)	(0.0113)	(0.0113)
Taiwan	-0.0703***	-0.0690***	-0.0549***	-0.0529***
	(0.0109)	(0.0108)	(0.0107)	(0.0107)
United Kingdom	0.0013	-0.0013	0.0022	0.0046
	(0.0113)	(0.0112)	(0.0111)	(0.0111)
Viet Nam	-0.0517***	-0.0460***	-0.0384***	-0.0331***
	(0.0100)	(0.0099)	(0.0099)	(0.0099)
Industry × Year FEs	Yes	Yes	Yes	Yes
Province × Year FEs	Yes	Yes	Yes	Yes

Industry × Province FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	352,535	351,485	347,690	346,805
Adj. R-sq	0.042	0.049	0.053	0.053
Correlation with IA Table 2 Panel A	0.9863	0.9859	0.9865	0.9868

Panel B: Additional control variables

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Individualism	0.0554***	0.0599***	0.0281***	0.0605***
	(0.0056)	(0.0051)	(0.0049)	(0.0050)
% English-speaking owners	0.0028			
	((0.0042)			
% French-speaking owners	0.0146**			
	(0.0071)			
Has female owners		0.0016		
		(0.0042)		
% married owners		0.0085***		
		(0.0021)		
Average owner age		0.0000		
		(0.0000)		
Average number of business owned		0.0010*		
		(0.0004)		
Average log earnings of employees			0.0998***	
			(0.0028)	
Has technical skill				0.0021
				(0.0021)
Has managerial skill				-0.0043*
				(0.0025)
Has professional skill				-0.0035
				(0.0029)
% college degrees				0.0145***
				(0.0023)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	Yes	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	Yes	Yes	Yes	Yes
Owner skill and education controls	Yes	Yes	Yes	No
Observations	313,140	305,530	313,140	313,985
Adj. R-sq	0.046	0.045	0.060	0.045

Table IA4. Owners' country of origin and within-firm pay inequality: Alternative inequality measures

This table examines the relation between Hofstede's individualism and alternative within-firm pay inequality measures. Panel A reports correlations between our main inequality measure and alternative inequality measures: a measure that includes owners' earnings, and the gap in log earnings between the 90th and 10th percentiles (excluding owners). Panel B presents the firm-year-level regression results of within-firm pay inequality including owners' earnings on individualism. Panel C presents the firm-year-level regression results of within-firm pay inequality on individualism where inequality is measured as the gap in log earnings between the 90th and 10th percentiles (excluding owners). All financial variables are winsorized at 1% and 99%, and all dollar values are converted to 2002 real values using consumer price index from Statistics Canada. Variables in both panels are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Correlation with alternative inequality measures

	Within-firm pay inequality	Pay inequality including owners	Gap in log earnings between 90th and 10th percentile
Within-firm pay inequality	1.000		
Pay inequality including owners	0.705***	1.000	
Gap in log earnings between 90th and 10th percentile	0.772***	0.554***	1.000

Panel B: Within-firm pay inequality including owners' earnings and individualism

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (including owners' earnings)			
Individualism	0.1097***	0.0963***	0.0840***	0.0818***
	(0.0066)	(0.0065)	(0.0066)	(0.0065)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	318,665	317,725	313,985	313,140
Adj. R-sq	0.106	0.117	0.122	0.123

Panel C: Within-firm pay inequality and individualism: Inequality measured as the gap in log earnings between the 90th and 10th percentiles (excluding owners)

	(1)	(2)	(3)	(4)
	Gap in log earnings between 90th and 10th percentiles			
Individualism	0.2515***	0.1853***	0.1662***	0.1626***
	(0.0115)	(0.0108)	(0.0108)	(0.0108)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	318,665	317,725	313,985	313,140
Adj. R-sq	0.072	0.167	0.171	0.173

Table IA5. Owners' country of origin and within-firm pay inequality: Size

This table presents additional regression results that examine the relationship between owners' culture and within-firm pay inequality with different firm sizes. *Within-firm pay inequality* is measured as the variance of a firm's employees' log earnings. Panel A presents the regression results between within-firm pay inequality and a firm's owners' country-of-origin group in firms with at least four employees. Due to space constraints, this table only reports country-of-origin groups with at least 800 unique firms. Panel B presents the firm-year-level regression results of within-firm pay inequality on individualism in firms with at least 14 employees (top quartile of the sample). Panel C presents the firm-year-level regression results of within-firm pay inequality on individualism in firms with at least 49 employees (top percentile of the sample). All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

Panel A: Firms with at least four employees (# unique firms > 800)

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Afghanistan	-0.0467***	-0.0355***	-0.0283***	-0.0257**
	(0.0107)	(0.0105)	(0.0105)	(0.0105)
China	-0.0579***	-0.0534***	-0.0423***	-0.0413***
	(0.0086)	(0.0085)	(0.0084)	(0.0084)
Egypt	-0.0174	-0.0148	-0.0042	-0.0056
	(0.0109)	(0.0107)	(0.0106)	(0.0106)
France	0.0139	0.0167	0.0272**	0.0281***
	(0.0110)	(0.0108)	(0.0108)	(0.0108)
Germany	0.0183	0.0146	0.0158	0.0183
	(0.0116)	(0.0114)	(0.0115)	(0.0115)
Hong Kong	-0.0535***	-0.0489***	-0.0398***	-0.0366***
	(0.0092)	(0.0091)	(0.0091)	(0.0091)
India	-0.0275***	-0.0246***	-0.0136	-0.0141*
	(0.0086)	(0.0084)	(0.0084)	(0.0084)
Iran	-0.0191**	-0.0157*	-0.0076	-0.0065
	(0.0091)	(0.0090)	(0.0089)	(0.0089)
Iraq	-0.0325***	-0.0239**	-0.0156	-0.0144
	(0.0110)	(0.0108)	(0.0106)	(0.0106)
Korea, South	-0.0281***	-0.0250***	-0.0052	-0.0057
	(0.0089)	(0.0087)	(0.0087)	(0.0087)
Lebanon	-0.0238***	-0.0193**	-0.0137	-0.0111
	(0.0091)	(0.0089)	(0.0089)	(0.0089)
Pakistan	-0.0522***	-0.0436***	-0.0331***	-0.0346***
	(0.0091)	(0.0090)	(0.0089)	(0.0089)
Philippines	-0.0248**	-0.0164	-0.0037	-0.0051
	(0.0118)	(0.0117)	(0.0117)	(0.0117)
Poland	-0.0200**	-0.0163*	-0.0093	-0.0082
	(0.0100)	(0.0098)	(0.0098)	(0.0098)
Portugal	-0.0339***	-0.0284**	-0.0198*	-0.0113
	(0.0113)	(0.0111)	(0.0111)	(0.0111)
Romania	-0.0200*	-0.0142	-0.0050	-0.0036
	(0.0117)	(0.0116)	(0.0116)	(0.0116)
Republic of South Africa	-0.0120	-0.0113	-0.0054	-0.0044
	(0.0126)	(0.0125)	(0.0124)	(0.0124)
Sri Lanka	-0.0194*	-0.0147	-0.0102	-0.0077
	(0.0108)	(0.0106)	(0.0106)	(0.0106)
Taiwan	-0.0650***	-0.0621***	-0.0469***	-0.0446***
	(0.0102)	(0.0100)	(0.0100)	(0.0100)
United Kingdom	0.0048	0.0036	0.0084	0.0108
	(0.0105)	(0.0103)	(0.0103)	(0.0103)
Viet Nam	-0.0446***	-0.0381***	-0.0295***	-0.0238***
	(0.0092)	(0.0090)	(0.0090)	(0.0091)

Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	270,045	269,278	266,365	265,690
Adj. R-sq	0.050	0.058	0.063	0.064
Correlation with IA Table 2 Panel A	0.9402	0.9389	0.9326	0.9293

Panel B: Within-firm pay inequality and individualism in firms with at least 14 employees

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Individualism	0.0664***	0.0599***	0.0533***	0.0514***
	(0.0077)	(0.0076)	(0.0076)	(0.0077)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	33,660	33,575	33,135	33,050
Adj. R-sq	0.209	0.220	0.222	0.224

Panel C: Within-firm pay inequality and individualism in firms with at least 49 employees

	(1)	(2)	(3)	(4)
	Within-firm pay inequality			
Individualism	0.0804***	0.0644***	0.0618***	0.0611***
	(0.0216)	(0.0210)	(0.0211)	(0.0209)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	3,170	3,165	3,100	3,100
Adj. R-sq	0.420	0.442	0.441	0.442

Table IA6. Summary statistics of the difference-in-differences sample

This table tabulates summary statistics of firm and owner characteristics in the treated and control firms among all employees and employee stayers, respectively. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. Observation numbers are rounded to the nearest 5.

Panel A: Summary statistics of the difference-in-differences sample of all employees

Firm characteristics	Mean	STD	N	Mean	STD	N	Mean	STD
	All			Control			Treated	
Within-firm pay inequality	0.312	0.297	17,720	0.311	0.295	2,110	0.32	0.309
# employees	8	8	17,720	8	8	2,110	8	8
Assets (in 000's)	605	1,034	17,430	618	1,047	2,065	500	916
Capital-labor ratio (in 000's)	93	180	17,430	96	183	2,065	71	143
Revenue (in 000's)	1,088	1,528	17,430	1,088	1,520	2,065	1,086	1,595
Firm age (years)	8	5	17,455	8	5	2,070	8	5
Owners characteristics								
Has multiple owners	0.56	0.5	17,720	0.57	0.5	2,100	0.48	0.5
# owners	1.76	0.85	17,720	1.78	0.86	2,100	1.59	0.74
% college degrees	30.20%	41.00%	17,720	31.00%	41.30%	2,100	24.30%	38.20%
Average skill	4.15	2.02	17,715	4.15	2	2,100	4.2	2.15
Average education	3.59	1.9	17,710	3.61	1.9	2,105	3.4	1.83
Average age (years)	46	9	17,430	46	9	2,110	46	9
Average # business owned	1.79	1.72	17,720	1.8	1.73	2,045	1.72	1.62
% female owners	28.90%	35.90%	15,030	29.20%	35.50%	940	24.60%	41.10%

Panel B: Summary statistics of the difference-in-differences sample of employee stayers

Firm characteristics	Mean	STD	N	Mean	STD	N	Mean	STD
	All			Control			Treated	
Within-firm pay inequality	0.314	0.213	3,725	0.312	0.213	290	0.337	0.21
# employees	14	13	4,360	14	13	600	14	11
Assets (in 000's)	989	1,285	3,715	1,002	1,288	290	819	1,232
Capital-labor ratio (in 000's)	88	138	3,715	90	142	290	55	76
Revenue (in 000's)	1,940	2,205	3,715	1,951	2,196	290	1,801	2,312
Firm age (years)	9	5	3,725	9	5	290	9	5
Owners characteristics								
Has multiple owners	0.6	0.49	4,360	0.61	0.49	600	0.48	0.5
# owners	1.77	0.9	3,725	1.82	0.91	290	1.14	0.47
% college degrees	25.80%	38.30%	4,360	26.10%	38.30%	600	23.20%	38.20%
Average skill	4.18	2.01	4,355	4.16	1.98	600	4.28	2.25
Average education	3.39	1.83	4,355	3.39	1.82	600	3.41	1.84
Average age (years)	47	9	3,660	47	9	270	47	10
Average # business owned	2.13	2.31	3,725	2.15	2.34	290	1.79	1.73
% female owners	29.20%	35.90%	3,725	29.60%	35.50%	290	23.20%	40.10%

Table IA7. Owners' country of origin and within-firm pay inequality: Difference-in-differences using the premature death sample (Age at death < 60)

This table presents difference-in-differences regression results among employee stayers on a subsample of firms in which owner turnover events were caused by the premature death of prior owners. *Employee stayers* are defined as those employees who work at the firm both before and after an owner turnover event. We define premature death at the age of 60 or younger. The dependent variable, *Within-firm pay inequality*, is measured as the variance of a firm's employees' log earnings. *Treated* is an indicator variable that equals 1 if the firm was taken over by owners from a different country. *Post* is an indicator variable that equals 1 after a firm's change in owner, and 0 otherwise. ΔCulture stands for the change in the owner's culture caused by the owner change, which equals 1 if there is an increase in the owner's culture toward more within-firm pay inequality, and -1 if there is a negative change in the owner's culture toward less within-firm pay inequality. *Culture* is proxied by the estimated owners' country of origin fixed effects from the baseline, and a higher value of *Culture* indicates a country with higher within-firm pay inequality. All financial variables are winsorized at 1% and 99%. All dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. Appendix A defines the variables. Standard errors are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Note: Coefficients suppressed by Statistics Canada

	(1)	(2)	(3)	(4)
	Within-firm pay inequality (stayers)			
Post × Treated	+	-	-	-
Post × Treated × ΔCulture	+**	+**	+	+*
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes

Table IA8. Individualism and labor income share

This table examines the relation between Hofstede's individualism and labor income share. *Labor income share* is measured as the ratio of total payments to workers over the firm's value-added. All financial variables are winsorized at 1% and 99%, and all dollar values are converted to 2002 real values using the consumer price index from Statistics Canada. All variables are defined in Appendix A. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are rounded to the nearest 5.

	(1)	(2)	(3)	(4)
	Labor income share			
Individualism	-0.0158***	-0.0143***	-0.0238***	-0.0242***
	(0.0042)	(0.0037)	(0.0036)	(0.0036)
Industry, Province, Year FEs	Yes	Yes	Yes	Yes
Firm size, Capital-labor ratio	No	Yes	Yes	Yes
Revenue, firm age controls, has multiple owner indicator	No	No	Yes	Yes
Owner skill and education controls	No	No	No	Yes
Observations	282,500	281,720	278,625	277,985
Adj. R-sq	0.134	0.297	0.336	0.337