ESG Education and Job Choice

Tianhao Yao*

[Click here for the latest version]

November 9, 2022

Abstract

I investigate whether ESG education promotes ESG awareness and affects job choices. Exploiting the gradual introduction of mandatory ESG courses in MBA curricula, I find that students who have taken mandatory ESG courses change their careers to work at firms with better ESG performance and in more sustainable sectors. I obtain this result in a triple difference-in-difference framework, which absorbs many dimensions of potential selection, and I provide additional evidence that the effect is likely to be causal. School-level wages decrease after the introduction of mandatory ESG courses. Graduates with ESG education are more likely to state ESG concerns on their CVs, and are less (more) likely to leave better (worse) ESG-performing companies. My results imply that ESG teaching affects how students trade off pecuniary benefits and externalities, and thereby affects the matching between employees and firms.

Keywords: ESG; CSR; Sustainability; Job choices; Wages

*HEC Paris. Email: tianhao.yao@hec.edu. I am grateful to my advisors Augustin Landier and Daniel Schmidt for their continuous support and guidance. I also thank Jean-Edouard Colliard, Francois Derrien, Matthias Efing, Thierry Foucault, Denis Gromb, Johan Hombert, Jessica Jeffers, Stefano Lovo, Daniel Metzger, Jacques Olivier, Evren Ors, Guillaume Vuillemey and participants at HEC Paris PhD Workshop for helpful comments and feedback. All errors are my own.

1 Introduction

Externalities are a major source of market failure and welfare loss. The ultimate example is perhaps climate change. By not internalizing the negative impact of carbon emissions on our environment, our collective production and consumption choices cause dangerous global warming. As climate policy has been slow to respond to this crisis, there is a lot of discussion about alternative solutions. One potential solution is education. Indeed, if education can help agents to understand and internalize the negative side effects of their behavior, the externality problem could be alleviated. This poses an important question: Is it possible to promote agents' "Environmental, Social and Governance" (ESG)[1] awareness through ESG education?

Answering this question is difficult. First, there are data limitations. Outside of the laboratory, it is difficult to observe a sample of similar subjects, some of whom are exposed to ESG education while others are not. Second, ESG awareness is not directly observable and has to be revealed from observable outcomes of real decision making. Third, exposure to ESG education is not exogenous. The individuals who seek out ESG education are likely to be those who are ex-ante more ESG-aware.

This study tackles these challenges. First, I collect a novel dataset of the employment and education history of graduates from top MBA programs from LinkedIn,[2] along with the curriculum history of mandatory ESG courses of these programs. I document that there is large variation in whether and when the top MBA programs introduce mandatory ESG courses into their curricula.[3] As a result, I observe a sample of presumably similar MBA graduates, some of whom are exposed to ESG education.

Second, I use job choices as real decisions that reveal ESG awareness. MBA degrees are meant to shape the careers of students. Job choices are therefore natural outcomes to investigate in the context of ESG education in MBA programs. In this paper, I hypothesize that more ESG-aware agents tend to work at better ESG-performing companies, and confirm this hypothesis in the data.

Third, I argue that being exposed to ESG education is plausibly exogenous in my setup and

[1] Governance is not a type of externality. In this paper, ESG awareness refer mostly to concerns about environmental and social impact. Neverthless, I use the term ESG as it is widely used.

[2] LinkedIn is one of the largest online business networking platforms, on which users upload their CVs to the website and keep them updated for professional networking purpose.

[3] I define a mandatory course as ESG course if the course name includes words related to "ethics", "responsibility", "social", "sustainability", or "integrity". See Table 1 for when the MBA programs introduce mandatory ESG courses and the course lists. Detailed data collection process is described in Section 3.1.

thus unlikely to come from selection effects. I use a triple-difference (difference-in-difference-in-difference) framework to examine whether exposure to ESG courses affects students' career outcomes. Specifically, I focus on the changes in companies that students work for before versus after their MBA study (first difference) by controlling for individual fixed effects. This largely absorbs the selection effect that ex-ante more ESG-concerned students select ESG courses and work for better ESG companies. In addition, I exploit within-school variation by comparing MBA graduates before versus after their respective schools introduce mandatory ESG courses (second difference). This absorbs other dimensions of matching between students and schools (e.g. political preferences) that are potentially correlated with changes to ESG awareness. Finally, I exploit the variation within cohorts (MBA graduation years) by comparing students in the same cohort across different schools with versus without ESG courses (third difference). This absorbs the potential effect that younger cohorts become more ESG-concerned over time.

To measure firms' ESG performance, I use firm-level ESG scores from the MSCI KLD database, which are widely used in the financial economics literature (see, e.g., Hong and Kostovetsky, 2012; Deng et al., 2013; Servaes and Tamayo, 2013; Di Giuli and Kostovetsky, 2014; Krüger, 2015; Flammer, 2015; Lins et al., 2017; Cronqvist and Yu, 2017; Chen et al., 2020). I use this measure because it has a long track record, thereby allowing me to observe ESG performance before and after the introduction of ESG courses.

I find that students change careers to work at better ESG-performing firms after graduating from MBA programs with ESG courses. In my empirical specification, this career change is compared to two counterfactual groups: (1) the career change of same-school graduates in earlier cohorts before the introduction of ESG courses, and (2) the career change of the same-cohort graduates in schools without ESG courses. In terms of economic significance, being exposed to ESG teaching leads graduates to work at firms with an 8.1% (5.3% within industries) better ESG performance compared to the median firm, which corresponds to 22.8% of the ESG score's standard deviation.

Further investigating the mechanism, I decompose the sample into subsamples in which (1) employees switch companies, and (2) in which employees stay at the same company in two consecutive years. I find that employers' ESG performance increases only when ESG-educated graduates switch to a new company. This implies that graduates with ESG education match with firms with better ESG performance. In contrast, the ESG performance of the same firm does not increase when an ESG-educated employee works there. In other words, there is no evidence that graduates with ESG education improve the ESG performance of firms that they

work for. The absense of impact on firms' ESG performance is expected in my setting, because ESG-educated graduates are from more recent cohorts, which have not yet reached the top executive levels of firms and thus are unlikely to affect firms' ESG policies.

There might be a concern regarding the measurement of ESG performance. Prior work finds substantial divergence among firm-level ESG scores by different data providers and that the score construction methodologies are subjective (Gibson Brandon et al., 2021; Berg et al., 2019, 2020, 2021). I mitigate the measurement concern in two ways. First, I show that ESG teaching also affects students' industry choices. While there is no consensus on what defines a better ESG industry, I use a survey-based measure introduced by Krueger et al. (2022), in which the authors explicitly ask respondents to rate the sustainability of industries. I find that ESG-educated graduates change careers to work in industries perceived to be more sustainable. Being exposed to ESG education leads graduates to work in industries with 1.1% higher sustainability scores compared to the median industry, which corresponds to 7.4% of the standard deviation. ESG-educated graduates are also less likely to work in "sin" industries (Hong and Kacperczyk, 2009), i.e. alcohol, tobacco, and gaming, which are considered to have negative societal impact. ESG teaching reduces the probability of working in "sin" industries by 0.3%, which corresponds to 76% of the unconditional probability of working in "sin" industries of the full sample.[4]

Second, I exploit two more objective measures of ESG performance: CO2 emissions from Refinitiv Eikon and negative E&S news from Reprisk. Unfortunately, these measures have shorter coverage and there are thus not enough control group observations (pre-MBA employment for graduates before schools introduce ESG courses) to identify the before versus after MBA study effect. For these measures, I therefore resort to a double difference-in-difference framework by only focusing on post-MBA employment (still controlling for schools and cohorts). I find that after their MBA study, MBA graduates with ESG education work at companies with a 20.8% (6.9% within industries) lower ratio of CO2 emission to revenue. They also work at companies with 10.5% (7.1% within industries) fewer negative E&S incidents. These results confirm the baseline finding that ESG-educated graduates choose to work at better ESG-performing firms.

While there might be other endogeneity concerns, I provide additional evidence that the alternative selection effects are unlikely to explain the results. First, I investigate the career change (before/after MBA) of each cohort relative to the introduction year of the ESG courses. The career change of students are not different before the introduction of ESG courses, but start to change right after the introduction. Moreover, my baseline effect holds if I only include

[4]Note that only a small proportion (0.4%) of my sample work in "sin" industries.

the three consecutive cohorts around the introduction years of ESG courses. In other words, when I compare the cohorts one year before ESG course introduction with the cohorts in the year or one year after ESG course introduction, I still find a difference in students' tendency to change careers to better ESG-performing firms. This evidence strongly suggests that it is the mandatory ESG course that drives the results, instead of any long-run change in education philosophy or other aspects of MBA curricula of some schools.

Second, I consider the possibility that there is a school-specific labor demand effect. Indeed, schools could offer ESG courses to meet the demand of some local firms, which later improve their ESG performance. This could explain why students with ESG courses end up working for good ESG-performing companies even if ESG courses have no impact on students' ESG awareness. To start with, such a change in local demand is more likely to be slow-moving than a sharp change in one year. My finding that the effect holds robust to only comparing 3 close cohorts around ESG course introduction already casts a doubt on this alternative explanation, as local demand should be reasonably constant over such a short time window. For further confirmation, I run a set of placebo tests, in which I generate placebo ESG course introduction years, by moving real ESG course introduction years 2, 4, or 6 years earlier or later. In these placebo tests, I again focus on the close cohorts around the placebo introduction years. I find no effect in any of the placebo tests. Thus, to be able to explain the baseline results through local demand, it would have to be the case that business schools introduce ESG courses precisely in the years when local demand jumps, which seems unlikely to be true. Moreover, the effect is robust and economically stronger in the subsample of firms with headquarters in foreign countries or in different or non-adjacent states from the MBA schools. These far-away firms are less likely to drive curriculum changes at business schools. I conclude that local demand effect is unlikely to explain my baseline results.

Third, I address the potential selection concern that students who want to pursue a sustainable career select schools with a mandatory ESG course. Note that the endogeneity concern is not that ESG-concerned students select schools with ESG courses, which is already absorbed by individual fixed effects. Instead, the endogeneity concern is that students *who want to change careers* to better ESG-performing firms select schools with ESG courses. While it is difficult to rule out this selection effect, I provide evidence suggesting that this channel is unlikely to drive my results. Specifically, I show that the baseline results hold in the earlier years of my sample, when interest in ESG-conforming career changes was arguably still rare. I also show that my results hold in the subsamples of students attending a local school or of students selecting the

same school as for their bachelor degree. In these subsamples, it is more likely that students select MBA programs based on other reasons (e.g. moving costs) rather than the existence of a mandatory ESG course. Moreover, there is no change in observable characteristics of students around the time when schools introduce mandatory ESG courses. This evidence is hard to square with the idea that students who want to pursue a sustainable career select schools with a mandatory ESG course. Taken together, my findings suggest that different selection effects are unlikely to drive the results, and therefore that ESG courses in MBA programs have a causal impact on students' job choices.

I then investigate through what channel ESG education affects the matching between graduates and firms. There are two potential channels. On the one hand, it may affect labor supply: ESG-educated students are more aware of the importance of ESG and derive a disutility from working in firms with low ESG performance (e.g. heavy polluters). On the other hand, ESG education may affect labor demand: ESG-educated students have some ESG-related skills that can benefit firms. Better ESG-performing firms value these skills more and thus have a higher demand for ESG-educated graduates. I provide two pieces of evidence that are more consistent with a labor supply effect.

First, I investigate how ESG education affects students' wages. Unfortunately the salaries of individuals in my sample are not observable, I therefore rely on survey-based wage data from the Financial Times and conduct my analysis at the school level. After mandatory ESG course introduction, graduates' wage growth[5] decreases by 11 percentage points, which is equivalent to 8.8% of the unconditional mean of wage growth. The intuition is that graduates sacrifice wages to work for better ESG-performing firms, from which they derive additional utility that compensates the wage discount. Note that an explanation based on labor demand—better ESG-performing firms hiring ESG-skilled graduates—would have predicted a wage premium.

Second, I use a self-reported proxy for ESG awareness to provide direct evidence suggesting that ESG education promotes ESG awareness. On LinkedIn, users can choose to fill out a "causes one cares about" section in their profiles. In the section, users can choose from 15 ESG-related causes that they ostensibly care about.[6] In my sample, 12% of LinkedIn profiles have this section. Unconditionally, individuals who filled out this section tend to work for companies with better ESG performance. Younger cohorts are also more likely to fill out this section in

[5]Wage growth is defined as the percentage increase comparing pre-MBA salary and salary 3 years after completing MBA (see the detailed data description in Section 3.3).

[6]Appendix Figure A5 shows an example of such an section.

their profiles, consistent with the idea that younger generations care more about ESG. Using a dummy for having this section on their profiles as an indirect measure for ESG awareness, I find that graduates with ESG education are indeed more likely to fill out this section, after controlling for school and cohort fixed effects. ESG education increases the probability of stating ESG causes on LinkedIn profiles by 1.5%, which is 12.5% of the unconditional probability. This suggests that ESG teaching promotes ESG awareness and is thus more likely to affect labor supply as opposed to labor demand.

The matching between ESG-aware employees and firms with different ESG performance also has implications on job turnover. Graduates with ESG education stay longer (shorter) in companies with better (worse) ESG performance. On average, ESG-educated employees stay 1.7 more years at the best ESG quintile firms, and 1.1 fewer years at the worst ESG quintile firms. The effects are economically large compared to the unconditional average duration of 5.5 years in my sample. Importantly, I draw this conclusion by running regressions after controlling for firm-year fixed effects, which absorb all company characteristics (e.g. financial constraints). Put differently, an ESG-concerned employee is less likely to leave a better ESG-performing company, compared to another less ESG-concerned employee who works at the same company in the same year. This evidence highlights the role of ESG preferences: good ESG performance helps companies to retain ESG-concerned employees.

This paper is the first to investigate the impact of ESG education and provides direct evidence that ESG education shapes students' ESG awareness and how they trade off pecuniary benefits and externalities. This evidence shows that business school education does have an impact on the behavior of students and therefore the economy, in line with the idea that teaching affects the behavior of citizens and really matters (Edmans, 2022). In particular, I show that ESG education in business schools teach people to behave "in a good way" (Zingales, 2015), which can potentially benefit the society. While my paper cannot speak to the importance of ESG education in other levels or types of education, my findings clearly suggest that ESG-education has an impact on MBA or other business-related degrees in universities. Business-related degree students play important roles in the economy. In 2020, 37% of CEOs in the U.S. have MBA degrees and 43% have business-related degrees (Acemoglu et al., 2022).

Although this paper focuses on job choices as outcomes, ESG preferences may also affect other economic behavior, such as production, consumption and investment decisions. In this paper, I do not find significant evidence that ESG education affects firm outcomes. This is because the graduates with ESG education in my sample are from more recent cohorts, which

have not yet reached the top executive levels of firms, and which therefore hardly affect firm management. As prior research shows that managers' personal preferences have a significant impact on management styles and firm outcomes,[7] it is reasonable to believe that individuals with ESG education can have an impact on firms once they rise to executive positions.

This paper also has important implications for the governance and ESG policies of firms. Exploiting variation in ESG awareness arising from exposure to ESG education, I show that it plays an important role in the firm-employee matching process. Better ESG-performing firms can better attract and retain ESG-aware employees at lower wages. As the importance of ESG keeps growing and more agents in the economy become ESG-concerned (partly due to ESG education), firms with poor ESG performance may face more difficulties in attracting and retaining talents. Since the ability to attract and retain talents is a key driver of firm performance (e.g., Zingales, 2000; Edmans, 2011; Eisfeldt and Papanikolaou, 2013), the higher human capital cost in the production process may drive the change of firms' ESG policies.

Related Literature. This paper contributes to several strands of literature. First, it directly contributes to the literature on the impact of economics and business education on students. In line with Friedman (1970), who famously stated that "The social responsibility of business is to increase profits", business schools have traditionally put more emphasis on teaching shareholder value maximization. In experiments and surveys, prior research examines the effects of economics and business education on ethical or altruistic behavior (e.g., Frank et al., 1993, 1996; Frey and Meier, 2003; Bauman and Rose, 2011; Wang et al., 2011; Girardi et al., 2021). More recently, Acemoglu et al. (2022) show that business managers (CEOs with MBAs or business undergraduate degrees) share fewer rents with employees. They attribute the phenomenon to the emphasis on shareholder value maximization in business schools. This paper contributes to the literature by showing that ESG education can help business school students to embrace a broader, less self-centered perspective that is conscious of the common good.

Second, this paper contributes to the recent literature on how ESG affects the bottom line of firms, and to what extent firms can "do well by doing good" (Bénabou and Tirole, 2010). Research in this field shows that different ESG-concerned company stakeholders affect firms' performance and ESG policies. Both retail and institutional investors have preferences for better-ESG or greener assets (Starks et al., 2017; Riedl and Smeets, 2017; Dyck et al., 2019; Gibson et al., 2021). As a result, they have an impact on asset prices and firms' cost of capital (Fabozzi et al., 2008; Hong and Kacperczyk, 2009; Bolton and Kacperczyk, 2019; Cao et al.,

[7] See, for example, Bertrand and Schoar (2003); Benmelech and Frydman (2015); Cronqvist and Yu (2017).

2019; Pástor et al., 2022). ESG-concerned shareholders also engage in firm management and improve firms' ESG policies (Dimson et al., 2015; Hoepner et al., 2021; Naaraayanan et al., 2021). Socially responsible customers exert influence to their suppliers and improve suppliers' ESG policies (Schiller, 2018; Dai et al., 2021).

This paper contributes to the channel through the labor market: ESG-concerned employees tend to match with and stay longer at firms with better ESG performance. My paper is closely related to Krueger et al. (2022), who document a "sustainability wage gap" by using administrative data from Sweden. They find that employees, particularly those with high skills, are willing to receive lower pay for working in more sustainable firms and sectors. They also show that more sustainable firms are better able to recruit and retain high-skilled workers. Cen et al. (2022) show that better CSR firms can better retain CSR-conscious employees, and Rice and Schiller (2022) show that corporate philanthropy can help retain high-skilled employees. These papers focus on the heterogeneity of firm ESG performance, and take employees' ESG awareness as static individual-level characterisitcs. Krueger et al. (2022) use skills and time periods as proxies for ESG preference heterogeneity. Cen et al. (2022) use personal characteristics to predict CSR-consciousness. Rice and Schiller (2022) use state or county of residence as proxies for pro-social preferences. I extend the literature by providing plausibly exogenous (within-individual) variation of ESG awareness—exposure to ESG education—which allows me to pin down the impact of ESG preferences on the matching between employees and firms.

My paper is also related to Bode et al. (2015), Burbano (2016), Hedblom et al. (2019), and Schneider et al. (2020), who use surveys and experiments to show that workers exhibit preferences for more sustainable, more meaningful, and more moral jobs. This paper contributes by showing that the preferences shown in a lab environment can generalize to the actual labor market, and affect the employee-firm matching process.

The rest of the paper is organized as follows: In Section 2, I provide a conceptual framework to guide the empirical analysis and formulate the empirical hypotheses. Section 3 describes the data used in the paper. Section 4 presents the main evidence that ESG education shapes the careers of students. Section 5 provides additional evidence which addresses remaining endogeneity concerns. Section 6 provides evidence suggesting that ESG education shapes ESG awareness and affects labor supply. Section 7 shows the real effects of the matching between ESG-concerned employees and firms with better ESG performance. Section 8 discusses the interpretation and external validity of my results. Section 9 concludes the paper.

2 Conceptual Framework and Hypotheses

In this section I consider a conceptual framework to guide the empirical analysis. Appendix B presents a formal theoretical model while in this section I only present the intuition. The central prediction of this framework is that employees with higher ESG awareness tend to match with firms with higher ESG performance and earn lower wages. The key assumption in this framework is that employees internalize the externalities of firms. That is, they derive an additional positive utility from working in a firm with high ESG performance (e.g. firms contributing to sustainability), and additional negative utility from working in a firm with low ESG performance (e.g. heavy polluters).[8] The magnitude of this utility increases in the level of ESG awareness of employees.

Consider a simple labor market with an exogenous pool of job offers at different wage levels from firms with different levels of ESG performance. Each employee randomly draws job offers from the pool and chooses the one that maximizes her utility. Facing the trade-off between wages and ESG performance, employees with higher levels of ESG awareness put higher weights on ESG performance of firms. Thus, employees with higher levels of ESG awareness are more likely to turn down high-wage low-ESG job offers, and to accept low-wage high-ESG job offers. As a result, employees with higher ESG awareness tend to work at firms with higher ESG performance. In addition, they earn lower wages, which is compensated by the additional utility derived from working in a high ESG-performing firm.

In this paper, I use exposure to mandatory ESG courses as a shock to the level of ESG awareness. Specifically, in my empirical setup, I compare a sample of employees with heterogenous ESG awareness (exposed to mandatory ESG courses or not) that are plausibly similar on other dimensions, which allows me to identify the impact of ESG awareness on labor market outcomes. Following the analysis above, I formulate the following hypotheses.

Hypothesis 1. *After exposure to mandatory ESG courses, employees work for firms with higher ESG performance.*

Hypothesis 2. *After exposure to mandatory ESG courses, employees earn lower wages.*

Moreover, this additional utility term may also affect job turnover. Consider an employee working at a firm, who experiences a random shock to her outside option and has to decide whether to leave the firm or not. For a given high ESG performance firm, employees with higher

[8]This "warm glow" utility is supported by experimental evidence by, for example, Imas (2014); Burbano (2016); DellaVigna and Pope (2018); Hedblom et al. (2019).

ESG awareness (who derive a higher positive utility from working at the firm) are less sensitive to the outside option shock than their low ESG-awareness counterparts. In contrast, for a given low ESG performance firm, employees with higher ESG awareness (who derive a lower negative utility from working at the firm) are more sensitive to the outside option shock than their low ESG-awareness counterparts. Following the analysis above, I formulate the following hypothesis.

Hypothesis 3. *Employees who are exposed to mandatory ESG courses are more (less) likely to leave a firm with low (high) ESG performance than employees who are not.*

3 Data and Measures

3.1 MBA Curriculum

I collect the history of curricula of MBA programs in the top 50 Financial Times MBA ranking. For each MBA program, I use the Wayback Machine[9] to retrieve the MBA curriculum exhibited on the school's website in June for each year. When the webpage of June of a particular year is not available, I collect the webpage closest to June from the same year.[10] I focus on mandatory ESG-related courses of the MBA programs because (1) for many schools, the full list of electives is not observable, and (2) because I do not observe which graduates took a given elective. By focusing on mandatory ESG courses, I ensure that all the students in the cohorts that follow the introduction of mandatory ESG courses are exposed to ESG education.

I identify mandatory ESG courses based on course names. Specifically, if a course name includes one of (or other forms of) the words "ethics", "responsibility", "social", "sustainability", or "integrity", I consider it to be an ESG-related course. Note that in early years, such content appears to have been taught under course names involving the term "ethics". Despite the different names, the content of such courses is highly related to ESG/CSR considerations such as environmental impact, other stakeholders of the companies, etc. For example, in the MBA program at the University of Washington Foster Business School, one core course is named "Ethical Leadership & Decision Making", and the course covers topics including: (1) ethical

[9]The Wayback Machine is a tool that allows to retrieve the historical archives of popular webpages.

[10]The curricula shown in June (or other months) in year t may not be the exact ones that the intake in year t has access to (and some schools have multiple intakes in a year). To the extent that I observe information on the existence of ESG courses with noise, the regression estimates may thus underestimate the true effect of ESG education (due to an attenuation bias).

aspects of conducting business, (2) ethical decision-making, (3) stakeholder management, (4) corporate social responsibility, and (5) sustainability and corporate governance. Therefore, I do not differentiate the courses based on the names; rather, I include all such courses as ESG courses.

I then compare the curricula in each of the two consecutive years to infer when the schools start offering the mandatory ESG courses. If a school does not have a mandatory ESG course in year $t-1$ but has one in year t, I conclude that the students from intake year t start to be exposed to ESG education. Out of 50 MBA programs, 20 schools do not have a mandatory ESG course as of 2021. Out of 30 schools that have mandatory ESG courses, for 12 of them I cannot observe the introduction year of the ESG courses, either because the earliest available webpage of the MBA programs already has a mandatory ESG course, or because the webpages of MBA programs in recent years are not available. As my identification strategy highly relies on the precise year of introduction of the ESG course (to explore the within-school variation), I drop the 12 schools for which I cannot observe the ESG course start year from my sample.

Table 1 about here.

My final sample thus includes 38 MBA programs (for which I can observe the ESG courses start year or that do not have compulsory ESG courses as of 2021). Table 1 shows the years when the schools include the mandatory ESG course in their curricula and course names. There is a large variation in years when the schools introduce mandatory ESG courses. For example, Pennsylvania Wharton introduced its "Ethics and Management" course in 2000, while Yale SOM only started to offer "State and Society" in 2007. Some schools, such as MIT Sloan and Columbia Business School, do not have mandatory ESG courses until 2021. This variation in the ESG courses start year allows me to identify the effect of ESG education on students' career choices.

3.2 Education and Employment History

To obtain a sample of individuals who graduate from the MBA programs, I start from a sample of individuals in Capital IQ with MBA degrees from the schools listed in Table A1. To obtain the full employment and education history, for each individual, I search the individual names with school names on LinkedIn. LinkedIn is one of the largest online business networking platforms, where users upload their CVs to the website and keep them updated for professional networking

purposes. The typical information includes educational and employment history. Educational history includes schools attended, start/end years, and degrees obtained. Employment history includes job titles, firm names, start/end years, and sometimes detailed job descriptions.

I perform a key word search to categorize the self-disclosed job titles in the company. Specifically, for each period of work experience, I search for key words related to president, director, chief executives, head, analyst, president, associate, engineer, partner, treasurer, controller, principal, consultant, chairman, advisor, auditor, accoutant. These roles are not mutually exclusive. For example, one can report herself as both be a manager and a director. As the job titles are self-reported and noisy, I only use this information in the robustness tests.

Another piece of information I collect from LinkedIn includes the section "causes one cares about". In this section, users can select from 15 causes related to ESG issues that he/she cares about[11] so that they show up as the last section of his/her profile. Appendix Figure A5 shows an example and Appendix Figure A6 displays the distribution of the stated causes. The limitation of this information is that I only observe one data point for each individual from the latest profile without a panel structure. Nevertheless, I use it as a proxy for ESG awareness, and test whether ESG education changes the likelihood of including ESG-related causes on the profiles.

For each individual, I record the educational and employment history from LinkedIn. I drop individuals for whom I cannot find a LinkedIn page as well as individuals for whom the MBA graduation year is not available on LinkedIn, because my identification strategy highly relies on this information. I keep the MBA graduates who graduate between 1980 and 2020. I also require the individuals' employment history to exist both before and after MBA program, in order to be able to explore the career change before versus after MBA study. In June each year, I track the company (school) where the individual works (studies), and their job titles (degrees). I drop the employment records during MBA study as they are more likely to be internship experiences. As a result, I have an individual-year panel where I can observe the firms that each individual works at in each year and the years in which the individual did the MBA.

[11]The causes are Education, Science and Technology, Environment, Economic Empowerment, Children, Health, Arts and Culture, Human Rights and Social Action, Poverty Alleviation, Civil Rights, Politics, Animal Welfare, Disaster and Humanitarian Relief, Social Services, and Veteran Support.

3.3 Wages

I collect school-level wage data from the Financial Times from 1999 to 2022. Each year, the Financial Times conducts a survey to MBA alumni about wages. Note that in year t, the Financial Times publishes the wages of MBA alumni who graduate in year $t-4$. I am therefore using wages of MBA alumni who graduated between 1995 and 2018. It provides two wage variables (1) *wage growth*, which is defined as the percentage rise comparing salary three years after completion with pre-MBA salary, and (2) *salary today*, which is defined as the average alumni salary three years after completing MBA, with US dollar PPP adjustment.[12] On average, graduates salary grow by 124 percentage points comparing pre-MBA with 3 years after completion of MBA, and they earn $132,347 three years after completing MBA study.

3.4 ESG Performance and Other Variables

I use the MSCI KLD Stats database (hereafter KLD) to construct the main measure for firm ESG performance because it has the longest track record. Specifically, the KLD scores date back to 1991, which allows for the observation of employers' ESG performance for individuals before their MBA studies and before the schools introduced ESG courses. KLD rates companies in 13 categories.[13] In each category, KLD provides indicators (either a zero or one) for a number of ESG "strengths", as well as ESG "concerns". Following prior literature (e.g. Di Giuli and Kostovetsky, 2014; Cronqvist and Yu, 2017; Chen et al., 2020), I construct the ESG performance measure by using the six most ESG-related categories: environment, community, diversity, employee relations, human rights, and product. I assign +1 for each strength and assign -1 for each concern; then I take the sum to construct a score for each category. I then sum up the scores across the six categories to construct a final ESG score.[14] As in Cronqvist and Yu (2017), I add the absolute value of minimum score so that the minimum ESG score is zero for a more straightfoward interpretation of economic magnitude.

[12] I do not use another variable *weighted salary*, as it's adjusted for variations between sectors and Financial Times does not report how the adjustment is made. Detailed information is avaiable at www.ft.com/mba-method.

[13] The 13 categories are community, diversity, employment, environment, human rights, product, alcohol, gaming, firearms, military, nuclear, tobacco, and corporate governance.

[14] Some prior research uses slightly different methods to contruct ESG scores from KLD. Servaes and Tamayo (2013) and Cen et al. (2022) contruct KLD ESG scores excluding the product category. Lins et al. (2017) construct a standardized score, which is calculated as the sum of "strength" indicators minus the sum of "concern" indicators divided by the number of indicators reported. My result is robust to these alternative definitions of KLD ESG scores.

Berg et al. (2019) and Gibson Brandon et al. (2021) document the presence of substantial disagreement in ESG scores issued by different data providers. The methodologies constructing the ESG scores are not transparent and are largely subjective. To avoid this subjectivity, I use two more objective measures of ESG performance of firms. The first measure is the carbon intensity of firms, defined as CO2 emissions divided by total revenue. I collect CO2 emissions (Scope 1 and 2) from Refinitiv Eikon. The second measure is the number of negative E&S news from RepRisk.[15] The drawback of these two measures is that they are not available for my early sample period (Refinitiv CO2 emission starts from 2002 and RepRisk from 2007). Therefore, for these two measures, I only focus on post-MBA employment records. In other words, I will test whether, after receiving MBA degrees, ESG-educated graduates work for (instead of changing their careers to) low carbon-intensive firms and firms with fewer E&S news.

I also use industry-level ESG performance measures. The advantage of the industry-level measure is that it covers private firms, and that it has a long track record. As there is no unified definition of better ESG industries, I first use the survey-based measure by Krueger et al. (2022), which explicitly asks respondents to rate sector-level sustainability. The sustainability ratings range from 1 to 5, with 5 indicating the most sustainable sectors. While the survey is conducted based on industry classification in Sweden, I match the Swedish industry classification to GICS sub-industries, and then aggregate to GICS industry group level by taking the average within the GICS industry groups. The ranking of sustainability is consistent with intuition: the least sustainable industries are Energy and Automobiles & Components, and the most sustainable sectors are Health Care Equipment & Services and Pharmaceuticals, Biotechnology & Life Sciences.

Another industry-level measure I use is the "sin" dummy, where "sin" is defined as companies in alcohol, tobacco and gaming industries, as defined in Hong and Kacperczyk (2009). Due to the addictive properties and undesirable social consequences of these products, they are considered as creating negative externalities to society. Hong and Kacperczyk (2009) show that norm-constrained institutional investors abstain from these industries. In this paper, I test whether ESG-educated employees are less likely to work in "sin" industries.

[15]RepRisk is a data provider that produces daily indicators for negative ESG-related news at the firm level. It does so through a daily analysis of a large set of documents in 20 languages obtained from public sources. RepRisk classifies ESG news according to 28 distinct issues. Environmental issues include news about climate change, pollution, waste issues, etc. Social issues include child labor, human rights abuses, etc. Governance issues include executive compensation issues, corruption, etc. Appendix Table A4 shows the list of issues. This database has been examined by prior research (e.g. Gantchev et al., 2022; Derrien et al., 2021).

To merge datasets from difference sources, I first match firm names in LinkedIn to Capital IQ through the Capital IQ Excel add-in.[16] For public firms, I manually verify that the matches are correct. For private firms, I assume that the matching is correct. Any matching error would only add more noise in the data and bias all coefficients towards zero. I then match the LinkedIn-Capital IQ sample to the datasets of ESG scores and Compustat using CUSIP and ISIN. For public firms, I observe ESG scores and other firm fundamentals. For private firms, I only observe the industry classifications from Capital IQ.

3.5 Summary Statistics

My final public firm sample has 90,571 observations, covering 14,203 individuals who work at 3,221 public companies with and observable ESG performance (KLD ESG score).[17] Table A1 displays the distribution of observations across schools. As expected, large top MBA programs cover more observations in my sample. This selection effect does not undermine my identification as I am investigating the within-school effect. In robustness tests I verify that the effects are not caused by one of the large MBA programs. Table A2 displays the number of individuals across MBA graduation years in my sample. Students who graduated between 1990-2010 account for more observations in my sample. This does not undermine my identification strategy either, as I am investigating the within-cohort effect. Appendix Table A3 displays the distribution of self-disclosed job titles. Most graduates are middle management positions of firms. The final sample for both public and private firms has 620,269 observations, including 31,356 individuals who work at 58,993 companies.

Table 2 displays the summary statistics of the variables used in my analysis. In my sample, 86% of the observations are post-MBA employment records. Approximately 7% of the observations come from individuals who are exposed to ESG education, corresponding to around 10% of the individuals. The discrepancies between the fraction of observations and the fraction of individuals come from the fact that individuals with ESG education are from later cohorts, and thus have a shorter employment record. Approximately 4% of the observations are "treated" (post-MBA and exposed to ESG courses). The average ESG performance of firms is 11.1, and the average industry sustainabilty score is 3.3. On average, 0.4% firms belong to "sin" industries. Approximately 12% of individuals report "causes one cares about" on their LinkedIn

[16] Capital IQ provides an Excel add-in where one can input firm names, and it returns the possible matched firms in Capital IQ.

[17] In my sample, 1,443 firms have CO2 emissions data and 2,160 firms have RepRisk news data.

profiles.

4 Career Choices after ESG Education

4.1 Baseline Results

My baseline specification is a triple-difference (difference-in-difference-in-difference) framework. Intuitively, it focuses on the change in an individual's employers' ESG performance before and after her MBA study (first difference). It compares this change in ESG performance of "treated" individuals (exposed to a mandatory ESG course) to: (1) graduates from the same school in early cohorts without ESG course (second difference), and to (2) graduates from other schools in the same cohort without ESG course (third difference). Specifically, I run the following regression:

$$\begin{aligned} ESG\ Perf_{i,t} = \beta\, & \mathbf{1}\{PostMBA_{i,t}\} \times \mathbf{1}\{Taken\, ESG\, Course_i\} \\ & + PostMBA_{i,t} \times School\, FE \\ & + PostMBA_{i,t} \times Cohort\, FE \\ & + \alpha_i + \gamma_t + \epsilon_{i,t} \end{aligned} \tag{1}$$

where i and t indexes individuals and years respectively. $ESG\ Perf_{i,t}$ is the employer's ESG performance (KLD score) of individual i in year t, $\mathbf{1}\{PostMBA_{i,t}\}$ is a dummy that equals to 1 if year t is after individual i's MBA graduation year and zero otherwise, $\mathbf{1}\{Taken\, ESG\, Course_i\}$ is a dummy equal to 1 if the MBA program individual i attended has a mandatory ESG course and zero otherwise. $PostMBA \times School\, FE$ is the $PostMBA_{i,t}$ dummy interacted with school fixed effects (i.e. one $PostMBA$ dummy for each school). $PostMBA \times Cohort\, FE$ is the $PostMBA_{i,t}$ dummy interacted with graduation year fixed effects (i.e. one $PostMBA$ dummy for each cohort). α_i and γ_t are individual and year fixed effects, respectively. $PostMBA_{i,t}$ is not shown because it is absorbed by $PostMBA \times School\, FE$ and $PostMBA \times Cohort\, FE$. School fixed effects and cohort fixed effects are not shown because they are absorbed by individual fixed effects α_i.

The coefficient of interest is β, which captures the change in employers' ESG performance before versus after attending an MBA program with an ESG course, compared to that of MBA programs without ESG course. Note that the fixed effects rule out many potential selection effects. First, the regression focuses on the change in employer's ESG performance before versus

after MBA (rather than the level), and it controls for individual fixed effects. This rules out the potential selection effect that more ESG-concerned students select ESG courses and choose to work at better ESG-performing firms. Second, $PostMBA_{i,t} \times School\ FE$ absorbs the graduates' career change of certain MBA programs. This rules out the potential effect that some schools (regardless of an ESG course) change the students' career to better ESG firms, and that these schools are more likely to offer ESG courses. It also absorbs the matching between schools and students (based on, e.g., political preferences), and its correlation with the career change of students. Third, the $PostMBA_{i,t} \times Cohort\ FE$ absorbs the potential effect that some cohorts (e.g. younger graduates) become more aware of ESG issues and change their career accordingly after MBA stduy. Finally, year fixed effects absorb any time trend of firms' ESG performance.

In summary, by exploring within-cohort and within-school variation, this specification allows me to identify the effect of taking an ESG course on the change in employers' ESG performance before versus after MBA study. I double cluster the standard errors by school and cohort.

Table 3 about here.

Table 3 presents the results. I find that MBA graduates who are exposed to ESG education during their studies switch their career to work for firms with better ESG performance. Column (1) shows the result of estimating the specification in Equation (1) without control variables. Column (2) shows the results of adding the $log(size)$ control variable (defined as the natural logarithm of total assets) to the regression. The magnitude and statistical significance remain similar, which implies that these graduates do not simply work at larger firms that happen to have better ESG performance. In columns (3)-(5), the result is also robust to including more granular fixed effects, $PostMBA \times School \times Year$ and $PostMBA \times Cohort \times Year$. In column (6), I add $Industry \times Year$ fixed effects (defined at the GICS industry group level). The coefficient remains statistically significant, which implies that, after taking an ESG courses, graduates work at better ESG-performing firms within industries.

To confirm that the MBA study is the driver of the change in employers' ESG performance, I re-estimate the specification from Table 3 Column (5) but with specific dummies indicating the year before/after MBA study. This allows me to analyze the dynamics of employers' ESG performance over individuals' career. I find that students start to work at better ESG companies in the year after the MBA study, and that there is no pre-trend before MBA study (Figure 1).

This confirms that there is a sharp change before/after MBA program, implying that the effect in Table 3 is not caused by slow-moving preference changes of students.

Figure 1 about here.

The effect is also economically significant. The point estimate for the strictest specification (without industry FE) is 0.81 while the sample median (standard deviation) of the ESG performance measure is 10 (3.5). Hence, after taking an ESG course, students work at firms with 8.1% higher ESG preformance compared to the median firm, which corresponds to 22.8% of the standard deviation.

Table A5-A9 show that my baseline result is robust. First, it is robust to adding other firm characteristics as controls in the regressions, including firms' return-on-asset, debt-to-asset ratio, and CapEx-to-asset ratio of firms (Appendix Table A5). This is intuitive: although some firm characteristics are correlated with ESG performance, there is no obvious reason why these variables are also- correlated with ESG education after controlling for all the fixed effects. Second, Appendix Table A6 shows that the results are robust to controlling for job titles listed in Appendix Table A3. In other words, the baseline results still hold if we compare two graduates (from same cohort and same school) doing similar jobs. Third, Appendix Table A7 shows that the result is robust to using the diff-in-diff estimator proposed by Borusyak et al. (2021). This shows that my results are not driven by the potential bias caused by the heterogeneous treatment effects in staggered diff-in-diff designs (De Chaisemartin and d'Haultfoeuille, 2020; Sun and Abraham, 2021). Fourth, the effect is not caused by a single school. Specifically, I re-run the baseline regression from Table 3 Column (5), excluding one school at a time. As shown in Table A8, the effect remains significant each time. In addition, my result is robust to alternative standard error clustering (Appendix Table A9). Finally, in Appendix Table A10, I decompose the ESG scores. The effect is significant for environment, employee relations, and product scores, suggesting that these ESG aspects are more salient to employees.

4.2 Mechanism: Matching or Improving?

In the previous section, I show that, after taking mandatory ESG courses, students change careers to work at better ESG-performing firms. There are two potential explanations for this finding. First, it could come from matching: graduates who have taken ESG courses are

matched with better ESG-performing companies. Second, it could be the result of employees' impact on firms, in the sense that they help improve the ESG performance of their employers.

The time-series plot, presented in Figure 1, suggests that the effect is more likely to come from matching, rather than the improvement by employees. This is because the effect shows up in the first year after the MBA study. If the effect were coming solely from improvement, one would expect the effect to materialize slowly over time, without a jump in the coefficients right after the MBA study.

To more formally pin down the mechanism, I construct the change in ESG performance in two consecutive years, and test whether the effect comes from when employees switch companies (matching to another better ESG-performing company) or when they stay at the same company (improving ESG performance of the same company). As pointed out by Servaes and Tamayo (2013), the number of strengths and concerns in each KLD category has evolved over time; thus it is not possible to directly compare numbers of strengths and concerns across years.[18] In addition, firm size is highly correlated with ESG performance. As a result, employees move to better ESG performance companies when they move from small to large companies. To rule out this mechanical effect and to compare ESG performance across years, I contruct of change of a standardized ESG performance instead of using the raw ESG performance.

Specifically, I first standardize the ESG performance of firms by running the regression $ESG\ Perf_{f,t} = log(size)_{f,t} + \gamma_t + \epsilon_{f,t}$, and take the residual $\epsilon_{f,t}$ as the standardized ESG performance for firm f in year t, $ESGPerf^{STD}_{f,t}$. I then calculate the change in ESG scores fro two consecutive years $\Delta ESGPerf^{STD}_{i,t} = ESGPerf^{STD}_{i,t} - ESGPerf^{STD}_{i,t-1}$. I further split the sample into two, depending on whether (1) individual i works at same company in year $t-1$ and t, and (2) individual i works at different companies in year $t-1$ and t.

I run the following regression for the full sample, the subsample when staying at the same company, and the subsample when switching to a new company:

$$\begin{aligned} \Delta ESG\ Perf^{STD}_{i,t} = & \beta\, \mathbf{1}\{PostMBA_{i,t}\} \times \mathbf{1}\{Taken\, ESG\, Course_i\} \\ & + PostMBA_{i,t} \times School\, FE \\ & + PostMBA_{i,t} \times Cohort\, FE \\ & + \alpha_i + \gamma_t + \epsilon_{i,t} \end{aligned} \tag{2}$$

[18] Note that this issue in the KLD database does not undermine my baseline results, as I control for year fixed effects in all regressions.

Similar to the baseline regression, I still control for $PostMBA \times School$, $PostMBA \times Cohort$ fixed effects and individual fixed effects.

Table 4 about here.

The results, presented in Table 4, suggest that the effect comes from matching instead of contributing. Columns (1) and (2) exhibit the results for the full sample. It shows that, after graduating from an MBA program with an ESG course, graduates work at better ESG-performing companies, which confirms the baseline results in this new setting. As Columns (3) and (4) show, companies' ESG performance does not significantly increase when ESG-educated graduates stay at the same company. In contrast, Columns (5) and (6) show that the ESG performance significantly increases when ESG-educated employees switch companies. This suggests that ESG-educated employees switch to better ESG companies, consistent with a matching mechanism. In summary, the results suggest that ESG teaching affects the matching between employees and firms. ESG-educated employees tend to match with firms with better ESG performance. In contrast, I do not find that ESG-educated employees improve the ESG performance of their employers.

4.3 Industry-level and Other ESG Performance Measures

One potential concern is that the construction of the KLD ESG score is not transparent and that this score may not reflect the real ESG performance of firms. In this section, I instead use more direct and transparent measures of ESG performance. I start with two industry level ESG-related measures. The first is a survey-based industry sustainability score from Krueger et al. (2022), in which authors explicitly ask respondants to rate the sustainability of industries. The hypothesis is that more ESG-concerned employees care more about the environmental impact and tend to work in more sustainable industries. The second industry level measure is a dummy indicating companies in "sin" industries, i.e. alcohol, tobacco and gaming, as defined by Hong and Kacperczyk (2009). These industries are considered as creating negative societal impact, which implies that ESG-concerned individuals may want to avoid working in these industries. I run the same regression as in Equation (1), but replace the dependent variable by the industry sustainabilty score and by the "sin" industry dummy.

Table 5 about here.

The results, presented in Table 5, show that ESG education significantly changes students' choices of industries. Columns (1) and (2) show that students with ESG education switch to more sustainable industries, regardless of the set of fixed effects. The economic magnitude (0.04) is about 1.1% of the median of sustainability scores, which corresponds to 7.4% of the standard deviation. Columns (3) and (4) show that ESG-educated students tend to abstain from working in "sin" industries. The coefficient is 0.3, which corresponds to 76% of the unconditional likelihood of working in sin industries. As the "sin" industry is only a small proportion (0.4%) of the sample, the comparison to the unconditional mean may over-estimate the economic magnitude. Appendix Figure A1 and Appendix Figure A2 show the estimates with dummies indicating the year pre-/post-MBA study. Similar to Figure 1, there is no pre-trend before MBA study, suggesting that the MBA study causes a structural change.

Next, I use more objective firm-level measures of ESG performance, which should contain less noise than ESG scores. Specifically, I use the carbon intensity (CO2 emissions divided by revenue) as a proxy for the environmental impact of firms. CO2 emissions are a large contributor to global warming; thus, ESG-concerned employees would thus want to work for less carbon intensive firms. In addition, I use number of negative E&S news from RepRisk as a proxy for ESG performance. Both of these measures are more objective and less dependent on the methodologies used by the data providers.

However, one drawback of these measures is that they only start in the recent past (Eikon CO2 emissions from 2002 and RepRisk from 2007). Due to the shorter time horizon, I do not have enough control group observations (pre-MBA employment history of students before schools introduce ESG courses) to identify a before versus after MBA study effect. Therefore, for these measures, I only focus on post-MBA employment. Essentially, I test whether ESG-educated graduates work for (instead of switching to) better ESG-performing companies compared to other graduates. Specifically, I remove the pre-/post-MBA dimension from Equation (1) and run the following regression in the post-MBA sample:

$$\begin{aligned} ESG\ Perf_{i,t} = & \beta\, \mathbf{1}\{Taken\ ESG\ Course_i\} \\ & + School \times Year\ FE \\ & + Cohort \times Year\ FE \\ & + \epsilon_{i,t} \end{aligned} \tag{3}$$

where the dependent variables are KLD ESG scores, the natural logarithm of carbon intensity

in year t, or the natural logarithm of one plus the number of negative E&S news in year t.

Table 6 about here.

Columns (1) and (2) in Table 6 show that the baseline results for the KLD ESG score still hold in the double difference-in-difference framework. That is, conditional on post-MBA employment, graduates with ESG education work at better ESG performance companies. The coefficient in Column (1) is smaller than the coefficient in Column (5) in Table 3, suggesting that removing individual fixed effects biases the coefficients towards zero. Thus, the coefficients in Table 6 are likely to underestimate the real effect of ESG teaching. Columns (3) and (4) show that graduates with ESG education tend to work at less carbon intensive firms. In terms of economic magnitude, they work at firms with 20.8% lower carbon intensity across industries, and 6.8% lower carbon intensity within industries. Columns (5) and (6) show that the graduates with ESG education tend to work at firms with fewer negative environmental and social news.[19] They work at firms with 10.5% less negative E&S news across industries and 7.1% less negative E&S news within industries.

In summary, using alternative ESG performance measures, I verify that my baseline results are not caused by noise in ESG scores or simply due to chance. Moreover, I find that ESG teaching has an impact on both industry choices of employees and the matching between employees and firms.

5 Remaining Endogeneity Concerns

In this section, I provide additional evidence suggesting that selection effects are unlikely to drive the results. Specifically, the baseline results are unlikely to come from (1) long-run changes in schools' education philosophy, (2) local labor demand of schools, or (3) the possibility that students who want to pursue a sustainable career choose MBA programs with a mandatory ESG course.

5.1 Long-run Change of Schools

The first endogeneity concern is that there might be a long-run change of schools' other aspects of education philosophy, which may be correlated with whether schools introduce mandatory

[19] Appendix Table A11 show the results separately for envrionmental, social and governance news. The effect is stronger for social news and not significant for governance news.

ESG courses and with students' career changes. For example, there may be some electives which are related to innovation, and schools that introduce innovation-related courses are more likely to introduce mandatory ESG courses. As a result, the baseline results could be driven by the fact that students working for more innovative firms, which happen to have better ESG performance.

To confirm that it is the mandatory ESG course in MBA programs that drives the change of students' careers, I re-estimate the specification in Table 3 Column (5) with dummies indicating the cohorts before/after the year when the schools introduce mandatory ESG courses in the program. Specifically, I create dummies $\mathbf{1}_v^{school} = \mathbf{1}\{Cohort\ to\ ESG\ Course^{school} = v\}$. For example, Chicago introduced mandatory ESG course in 2007. $\mathbf{1}_{-1}^{Chicago}$, $\mathbf{1}_{0}^{Chicago}$, $\mathbf{1}_{+1}^{Chicago}$ indicate MBA intakes in year 2006, 2007, and 2008 respectively.

Figure 2 about here.

The results, presented in Figure 2, confirm that the effect only shows up after the introduction of ESG courses in the MBA curriculum and that there is no pre-trend before the schools introduce mandatory ESG courses. In the cohorts one year after the introduction of ESG courses, graduates start to significantly switch to better ESG-performing firms. To further validate this intuition, I focus on the subsample where the MBA cohorts are close to the year when the schools introduce ESG courses. Specifically, if a school offers a mandatory ESG course in year s, for this school I only keep the MBA intakes in years $[s-10, s+10]$, $[s-5, s+5]$, $[s-3, s+3]$, and $[s-1, s+1]$. The shortest window only compares 3 consecutive cohorts around the year of ESG course introduction,[20] making it less likely that the result is confounded by changes in schools' education philosophy or other changes in the MBA curricula.

Table 7 about here.

Table 7 shows that the baseline results remain robust to restricting to the cohorts close to the introduction of ESG courses. In columns (2) to (4), when we restrict the sample to cohorts

[20] I restrict the window to 3 consecutive cohorts rather than 2 consecutive cohorts because due to the data collection constraints described in 3.1, the observed introduction year of ESG courses may have ± 1 year error. The MBA intakes in the exact observed mandatory ESG course introduction years may not actually take the courses. The courses are mandatory for the MBA intake one year after observed introduction.

3/5/10 years relative to ESG introduction, the economic magnitude and statistical significance remain very close to my baseline results in Table 3. In column (1), I restrict the sample to the cohorts one year relative to the ESG introduction year. Though the economic magnitude is slightly smaller, it is still statistically significant. That is, even comparing 3 cohorts around the ESG introduction year, the career change of the first cohort is different from the career change of the second and third cohorts. For example, Chicago introduced mandatory ESG courses in 2007. MBA intakes in 2007 and 2008 have a different career path than the MBA intake in 2006. It seems unlikely that the education philosophy of Chicago's MBA changes dramatically from 2006 to 2008. Hence, the evidence suggests that the effect is caused by the introduction of ESG courses rather than by other changes to MBA curricula or slow-moving changes to schools' education philosophy.

5.2 School-specific Time-varying Labor Demand

I now address the possibility that there may be a school-specific time-varying demand from better ESG employers, which drives both schools' decisions to introduce ESG courses and students' subsequent employment by these better ESG-performing employers. For example, suppose that some employers close to a particular school want to improve their ESG performance and hire more ESG-concerned employees. If the school anticipates these changes, it may modify the curriculum to meet this labor demand. As a result, irrespective of the actual impact of ESG courses, one would observe that graduates who took ESG courses work at better ESG-performing companies.

Note that my earlier results are already hard to square with this alternative explanation. Indeed, ESG demand from local businesses should be slow-moving; however, the introduction of ESG courses has an impact on the cohort one year after the introduction (Figure 2). Moreover, career changes are different among the three consecutive cohorts around the ESG course introduction years, during which period local demand should be reasonably constant.

To further confirm that career change differences really occur around the introduction of ESG courses, but not in other years, I run a set of placebo tests in which I generate "placebo" ESG introduction years by moving the real ESG introduction years 2/4/6 years earlier or later; then, I test whether students' career changes are different around the placebo years. Put differently, I compare the career change of cohorts $[s-7, s-5]$, $[s-5, s-3]$, $[s-3, s-1]$, $[s+1, s+3]$, $[s+3, s+5]$, and $[s+5, s+7]$ (where s is the real ESG introduction year). As shown in Table 8, the effect is not significant in all the placebo tests. This evidence strongly suggests that it is the

ESG course that makes MBA graduates change careers and not something else that happens in other years.

Table 8 about here.

The evidence above shows that the career dynamics of students only change around the real ESG courses introduction years, but not in other years. To explain the results through school-specific demand, the following two assumptions have to be true: (1) there is a jump (rather than slow-moving trend) in school-specific demand, and (2) the schools are able to offer the ESG courses in the exact year prior to the jump. Both assumptions have to hold to explain the results, which seems unlikely.

Table 9 about here.

Moreover, even if there is such a school-specific time-varying labor demand, it is more likely to come from domestic firms (i.e., firms headquartered in the country of the school), from firms with headquarters located near schools, and from large firms. I therefore investigate whether the effect of ESG education is different for subsample of firms by replicating the regression in Table 3 Column (5) after splitting firms by headquarter location and size.

Column (1) in Table 9 shows the coefficients separately for domestic firms and firms whose headquarters are in different countries than in which the the MBA school is located. The effect is significant for both domestic and foreign firms, but the economic magnitude is larger for foreign firms. Column (2) (Column (3)) shows the coefficients separately for firms whose headquarters are located in the same (same or adjacent) states as the MBA schools. Firms with headquarters in a different country are considered as firms in non-adjacent states. The coefficients are not significant for firms in the same state and the same or adjacent states, while the coefficients are significant for firms that are located far from the MBA schools. Column (4) shows the coefficients separately for large and small firms, defined as either above or below the median of firm size. Though the statistical significance is lower for small firms, the economic magnitude is similar between large and small firms. Appendix Table A12 shows results for interaction specifications instead of sample splits. There is no significant difference between the subgroups of firms. If anything, the results are slightly stronger for foreign/non-local firms, i.e. for firms that are unlikely to drive changes in school curricula. This suggests that my baseline findings are not driven by a local demand effect.

5.3 Students' Self-selection into Schools with ESG Courses

Finally, I consider the possibility that the baseline effect is driven by students' self-selection into schools. Note that the endogeneity concern is not that more ESG-concerned students choose to study in schools with ESG courses as this effect is already absorbed by individual fixed effects in the baseline regression. Instead, the endogeneity concern is that *students who want to change careers* to better ESG-performing firms choose schools with ESG courses. While it is difficult to fully disprove this selection effect, I provide evidence suggesting that this channel is unlikely to be driving my results. Specifically, I show that the baseline results hold in the subsample in which students are unlikely to select the MBA school based on the existence of ESG courses.

First, I show that the baseline results hold in earlier period. Column (1) in Table 10 shows the coefficients after splitting by whether the cohorts are before or after 2008. The effect is robust in and economically stronger in or before 2008. In this period, it is less likely that there is a large group of students who choose an MBA program because it has a mandatory ESG course. Second, Column (2) shows that my results hold in the subsample in which students do an MBA that is close to their home. I proxy the home address as the headquarter of the last employer before MBA, and define a dummy indicating close to home if the distance between home address and school address is within 300 kilometres.[21] For this subsample, the students are more likely to select the MBA programs due to moving cost (e.g. family reasons), rather than the existence of a mandatory ESG course. Last, Column (3) shows the coefficients after splitting by whether the students do an MBA in the same school as their bachelor universities. Due to the small number of observations (only 6% of treated group), the coefficient of this subsample is not statistically significant but economically it is of same magnitude. In this subsample, the students are unlikely to choose the MBA program because it has a mandatory ESG course. Appendix Table A13 shows the results for interaction specifications instead of sample splits. There is no significant difference between the subgroups of firms. If anything, the results are slightly stronger for earlier periods or students who did bachelor in the same university, i.e. for students that are unlikely to select ESG courses.

Table 10 about here.

In addition, if the existence of ESG course attracts the students who are willing to pursue a

[21] The result is robust to defining the dummy "close to home" if the distance between home address and school address is within 100 or 500 kilometres.

ESG career ex-ante, this unobservable willingness may be correlated with other students' characteristics. In Appendix Figure A3, I show that the composition of observable characteristics of students do not change before and after when the schools introduce ESG courses. There is no change in the ratio of male students, local students, bachelor-at-same-school students and international students.

Overall, the evidence suggests that the selection effects are unlikely to drive the baseline results. Moreover, in the following section (Section 6.1), I will show that the introduction of mandatory ESG courses leads to a lower wage. These alternative explanations can hardly explain the wage discount at the same time. For example, if there is a local demand, we would expect that the graduates earn a wage premium to meet the local demand. In addition, It is not obvious that students who ex-ante want to pursue a sustainable career are also ex-ante want to sacrifice wages. Therefore, I draw the conclusion that ESG teaching has a plausibly causal impact on students' career choices.

6 Evidence of the Labor Supply Channel

What does ESG teaching change? There are two potential explanations for why ESG teaching affects careers of students. First, it may affect labor supply: after exposure to ESG courses, students are more aware of the importance of ESG and derive a disutility from working in low ESG-performing firms (e.g. heavy polluters). Alternatively, it may affect labor demand: after exposure to ESG courses, students develop some ESG-related skills that can benefit firms. Better ESG-performing firms value more ESG-related skills and have a higher demand for ESG-educated graduates. In this section, I provide evidence suggesting that ESG teaching affects students' ESG awareness and labor supply.

6.1 Wages

First, I investigate how wages change after ESG education. If ESG education changes labor demand, we would expect a wage premium. In contrast, if ESG education changes labor supply, we would expect a wage discount. Unfortunately, it is impossible to observe the wages of each individual in my sample. Therefore, I use school-level wage data and conduct the analysis at school level.

Specifically, I use survey-based wage data from the Financial Times. Financial Times conduct a survey to MBA alumni about wages each year. It provides two wage variables: (1)

wage growth, which is the percentage increase comparing salary three years after completion with pre-MBA salary, and (2) *salary today*, which is the average alumni salary three years after completing MBA. I ackowledge the fact that the salary data is self-reported and thus may be biased. However, there is no obvious reason why the bias would be correlated with the treatment in my empirical specification after controlling for school and cohort fixed effects.

To investigate how ESG education changes graduates' wages, I run the following regression:

$$Wage_{s,t} = \beta Post_{s,t} \times ESG\ Course_s + \alpha_s + \gamma_t + \epsilon_{s,t} \tag{4}$$

where the dependent variable is the wage growth (in percentage points) or the natural logarithm of salary three years after completing an MBA. $Post_{s,t}$ is a dummy equal to 1 if cohort t is after school s introduces a mandatory ESG course and zero otherwise. $ESG\ Course_s$ is a dummy equal to one if school s ever offers a mandatory ESG course and zero otherwise. I control for school fixed effects α_s and cohort fixed effects γ_t. I cluster the standard errors by school because there are only 24 cohorts in the wage sample.

Table 11 about here.

Table 11 shows the regression results. In Column (1), despite the small number of observations, the coefficient of offering an ESG course is significant at 10% level. In terms of economic magnitude, after introducing an ESG course, the wage growth of graduates decreases by about 11 pp. This is equivalent to 8.8% of the unconditional mean of wage growth (124 pp). In Column (3), the effect of ESG course on the logarithm of wages is not significant but is also negative. Columns (2) and (4) show the coefficients after splitting based on whether the cohorts are in or before 2008. The effect is of similar magnitude in the earlier and later parts of the sample.

Figure 3 about here.

To confirm that the introduction of ESG courses is the driver of the change in graduate wages, I re-estimate the specification in Table 11 Column (1) with specific dummies indicating before/after ESG course introduction. The graduates start to have lower wage growth only after the ESG course introduction, and there is no pre-trend before the introduction (Figure 3).

These results confirm that there is a sharp change after mandatory ESG course introduction, implying that the effect in Table 11 is not caused by slow-moving characteristics of schools. In Appendix Figure A4, I plot the coefficients for the specification in Table 11 Column (3). There is also no pre-trend and a sharp decrease after ESG course introduction, though the coefficients are not significant.

In summary, after introducing a mandatory ESG course, graduates have lower wage growth. Interpreting this evidence together with the results that they tend to work for better ESG-performing firms, it suggests that ESG courses affect students' ESG awareness and thus how students trade off wages and ESG performance of firms.

6.2 Proxying ESG Awareness

In this section, I provide direct evidence that ESG education promotes ESG awareness. On LinkedIn, users can add a section on their profiles stating the ESG causes that they care about. In this section, users can choose from 15 causes related to ESG issues. An example is shown in Appendix Figure A5, and Figure A6 displays the ditribution of the causes stated. One drawback with this information is that I only observe the latest CV. Intuitively, more ESG-aware individuals should be more likely to state ESG causes on their CVs. Consistent with intuition, I find in Appendix Table A14 that individuals who state the ESG-related causes on their profiles work for better ESG-performing firms. In addition, younger graduates are more likely to state ESG-related causes on their CVs, which is consistent with the idea that younger cohorts are more ESG-concerned.

To test whether ESG teaching shapes whether graduates' likelihood of stating ESG causes on their CVs, I run the following regression:

$$\begin{aligned} \mathbf{1}\{Causes\ care\ about\}_i = \beta \mathbf{1}\{ESG\ Course_i\} \\ + Cohort\ FE + School\ FE \\ + Controls_i + \epsilon_i \end{aligned} \tag{5}$$

where the dependent variable is a dummy variable indicating that individual i states ESG causes on her LinkedIn profile. I add school fixed effects and cohort fixed effects. I add several control variables that capture the completeness of users' LinkedIn profiles. Specifically, I include the natural logarithm of the number of words in the self-description section, the natural logarithm of the average number of words in the "Education" section, the natural logarithm of the average

number of words in the "Experience" section (which is the employment section), and a dummy indicating whether the individual's profile has a "Volunteering" section.

Table 12 about here.

Column (1) in Table 12 first shows the regression results without controls. The coefficient of having taken an ESG course is positive but not significant. Columns (2) and (3) show the results of gradually adding the control variables. Adding these control variables does not move much the economic magnitude; however, the coefficient becomes statistically significant, suggesting that the control variables help to absorb noise in the dependent variable. Column (3) shows that ESG teaching significantly increases the likelihood of having the "Causes one cares about" section completed on LinkedIn. As shown in Column (4), the effect is robust to excluding the non-ESG related causes (arts and culture, science and technology, politics, and veteran support), which might be related to personal interests. In terms of economic magnitude, ESG teaching increases the likelihood of stating ESG-related causes on the CV by 1.5%, which is equivalent to a 12.5% increase relative to the unconditional probability.

In summary, after exposure to ESG education, graduates are more likely to state ESG-related causes on their LinkedIn profiles and accept lower wages. The evidence suggests that ESG teaching affects the labor supply for firms with different levels of ESG performance.

7 Job Turnover of ESG-aware Employees

In this section, I investigate the implication on job turnover of matching between more ESG-concerned employees and better (worse) ESG-performing firms. The hypothesis is that more ESG-concerned employees have additional positive (negative) utility from working at higher (lower) ESG-performing firms. As a result, we would expect that employees would stay longer (shorter) at firms with higher (lower) ESG performance.

Similar to Section 4.3, I focus on the employment record after the MBA study. This is because there are few observations of job turnover before MBA degrees in my data; furthermore, the turnover before MBA degrees could not have been influenced by future exposure to ESG education. To test whether more ESG-concerned employees (those with ESG education) stay

longer at better ESG-performing firms, I run the following regression:

$$\begin{aligned}\mathbf{1}\{Leave\ Company_{i,t+1}\} = &\beta \mathbf{1}\{ESG\,Course_i\} \times ESG\ Perf_{i,t}^{STD} \\ &+ Firm \times YearFE \\ &+ Cohort \times YearFE \\ &+ School \times YearFE \\ &+ \sum_{s=1}^{S} \mathbf{1}\{School_i = s\} \times ESG\ Perf_{i,t}^{STD} \\ &+ \sum_{g=1}^{G} \mathbf{1}\{Cohort_i = g\} \times ESG\ Perf_{i,t}^{STD} \\ &+ \epsilon_{i,t}\end{aligned} \tag{6}$$

where the dependent variable is a dummy which equals 1 if, in year $t+1$, the individual i leaves the company that she works at in year t, and zero otherwise. The variable of interest is β, which captures the likelihood of leaving companies with different levels of ESG performance. I include $Cohort \times Year$, $School \times Year$, and $Firm \times Year$ fixed effects. $Perf_{i,t}^{STD}$ is the standardized ESG performance (as defined in Section 4.2) of the company at which individual i works in year t. $\sum_{s=1}^{S} \mathbf{1}\{School_i = s\} \times ESG\ Perf_{i,t}^{STD}$ is a set of control variables where there is a $ESG\ Perf^{STD}$ control for each school. $\sum_{g=1}^{G} \mathbf{1}\{Cohort_i = g\} \times ESG\ Perf_{i,t}^{STD}$ is a set of control variables where there is a $ESG\ Perf^{STD}$ control for each cohort. These variables control for the potential effect that graduates from some schools or cohorts are more sensitive to the ESG performance of firms.

The $Firm \times Year$ fixed effects are important because they absorb all the firm-level characteristics (e.g., financial constraints) that may have an impact on the likelihood of employees leaving the company. Intuitively, I am comparing two employees working at the same company in the same year, one of whom is more concerned about ESG (due to ESG education) and one of whom is less concerned (without ESG education).

Table 13 about here.

The results, presented in Table 13, show that ESG-educated employees are less likely to leave better ESG companies. Columns (1) to (4) show the results of gradually including more controls, and the results are robust in all specifications. In the strictest specification, the coefficient of interest is negative and significant, which implies that, within better ESG-performing

companies, employees with ESG education are less likely to leave the companies compared to employees without ESG education.

Figure 4 about here.

To better understand the economic magnitude of this effect, I run the same specification as that used in Column (4) of Table 13, with the continuous interaction term replaced by 5 dummies indicating ESG performance, i.e. $\sum_{q=1}^{5} \beta^q \mathbf{1}\{ESG\,Course_i\} \times \mathbf{1}\{Quantile\,ESG\,Perf_{i,t}^{STD} = q\}$. The estimates of the coefficients are plotted in Figure 4. The results show that, for firms in the best ESG performance quintile, ESG-educated employees are 4.2% less likely to leave compared to the employees without ESG education. In contrast, ESG-educated employees are 4.5% more likely to leave firms in the worst ESG performance quintile. These effects are economically large given that the unconditional probability of leaving a company is 18.1% in my sample. Equivalently, ESG-concerned employees stay for 1.7 more years at the firms ranked in the best quintile firms and 1.1 fewer years at the firms ranked in the worst quintile.

In summary, the results show that ESG education has a real impact on the matching between employees and firms. Firms with better ESG performance are better able to retain talents with higher levels of ESG awareness.

8 Discussion on External Validity

While I provide evidence that ESG education is effective in leading MBA students to work for better ESG companies, it remains unclear how these results are generalized to other types or levels of education. Business school teaching has long focused on individual rationality and shareholder value maximization. In this context, new courses emphasizing externalities, ethics, and responsibility may be more effective. In addition, my sample focuses on graduates from top MBA programs, who are not representative of the full population (e.g. in terms of income). Thus, it is not clear how to generalize the effectiveness of ESG teaching to the full population. Nevertheless, the evidence shown in this paper is meaningful, as MBA graduates from top programs are current and future decision-makers in firms, and thus play important roles in the economy.

In this paper, I do not find evidence that ESG education affect firm outcomes. However, this should not be understood as implying that ESG preferences do not affect firm policies. Rather,

this no-result is expected in the context of my person-specific identification strategy. Indeed, only a small proportion of individuals in my sample serve as top executives in their firms. In addition, students who have taken ESG courses are from relatively young cohorts, who have not yet reached top management positions where they can make an impact. As manager preferences are shown to be important in determining management styles (see, e.g., Bertrand and Schoar (2003); Cronqvist and Yu (2017); Benmelech and Frydman (2015)), it is reasonable to believe that they will have an impact on the firms they manage after they become top executives.

9 Conclusion

In this paper, I investigate the question whether ESG courses in MBA programs affect students' ESG awareness and their job choices. ESG-educated students change careers to work at better ESG-performing companies and in more sustainable sectors. I use a triple difference framework and provide additional evidence showing that the effect is not driven by (1) any person-level characteristics, (2) schools' long-run education philosophy, (3) local labor demand, or (4) the self-selection of students into schools. ESG-educated students sacrifice wage growth, suggesting that ESG teaching promotes ESG awareness and affects their willingness to supply labor to firms with different levels of ESG performance. Firms with better ESG performance are better able to retain ESG-concerned employees.

Overall, this paper provides direct evidence that ESG teaching in business-related degrees shapes how students trade off pecuniary benefits and externalities. It also has implications for firms' ESG policies regarding talent attraction and retention.

References

Acemoglu, D., He, A., and le Maire, D. (2022). Eclipse of rent-sharing: The effects of managers' business education on wages and the labor share in the us and denmark. *National Bureau of Economic Research Working Paper*.

Bauman, Y. and Rose, E. (2011). Selection or indoctrination: Why do economics students donate less than the rest? *Journal of Economic Behavior & Organization*, 79(3):318–327.

Bénabou, R. and Tirole, J. (2010). Individual and corporate social responsibility. *Economica*, 77(305):1–19.

Benmelech, E. and Frydman, C. (2015). Military ceos. *Journal of financial Economics*, 117(1):43–59.

Berg, F., Fabisik, K., and Sautner, Z. (2020). Rewriting history ii: The (un) predictable past of esg ratings. *European Corporate Governance Institute–Finance Working Paper*, 708.

Berg, F., Koelbel, J. F., and Rigobon, R. (2019). Aggregate confusion: The divergence of esg ratings. *MIT Working Paper*.

Berg, F., Kölbel, J. F., Pavlova, A., and Rigobon, R. (2021). Esg confusion and stock returns: Tackling the problem of noise. *Working Paper*.

Bertrand, M. and Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly journal of economics*, 118(4):1169–1208.

Bode, C., Singh, J., and Rogan, M. (2015). Corporate social initiatives and employee retention. *Organization science*, 26(6):1702–1720.

Bolton, P. and Kacperczyk, M. T. (2019). Do investors care about carbon risk? *Available at SSRN 3398441*.

Borusyak, K., Jaravel, X., and Spiess, J. (2021). Revisiting event study designs: Robust and efficient estimation. *Working Paper*.

Burbano, V. C. (2016). Social responsibility messages and worker wage requirements: Field experimental evidence from online labor marketplaces. *Organization Science*, 27(4):1010–1028.

Cao, J., Titman, S., Zhan, X., and Zhang, W. E. (2019). Esg preference and market efficiency: Evidence from mispricing and institutional trading. *SSRN Electronic Journal*.

Cen, X., Qiu, Y., and Wang, T. Y. (2022). Corporate social responsibility and employee retention. *Available at SSRN 4144689*.

Chen, T., Dong, H., and Lin, C. (2020). Institutional shareholders and corporate social responsibility. *Journal of Financial Economics*, 135(2):483–504.

Cronqvist, H. and Yu, F. (2017). Shaped by their daughters: Executives, female socialization, and corporate social responsibility. *Journal of Financial Economics*, 126(3):543–562.

Dai, R., Liang, H., and Ng, L. (2021). Socially responsible corporate customers. *Journal of Financial Economics*, 142(2):598–626.

De Chaisemartin, C. and d'Haultfoeuille, X. (2020). Two-way fixed effects estimators with heterogeneous treatment effects. *American Economic Review*, 110(9):2964–96.

DellaVigna, S. and Pope, D. (2018). What motivates effort? evidence and expert forecasts. *The Review of Economic Studies*, 85(2):1029–1069.

Deng, X., Kang, J.-k., and Low, B. S. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of financial Economics*, 110(1):87–109.

Derrien, F., Krueger, P., Landier, A., and Yao, T. (2021). Esg news, future cash flows, and firm value. *Available at SSRN 3903274*.

Di Giuli, A. and Kostovetsky, L. (2014). Are red or blue companies more likely to go green? politics and corporate social responsibility. *Journal of Financial Economics*, 111(1):158–180.

Dimson, E., Karakaş, O., and Li, X. (2015). Active ownership. *The Review of Financial Studies*, 28(12):3225–3268.

Dyck, A., Lins, K. V., Roth, L., and Wagner, H. F. (2019). Do institutional investors drive corporate social responsibility? international evidence. *Journal of financial economics*, 131(3):693–714.

Edmans, A. (2011). Does the stock market fully value intangibles? employee satisfaction and equity prices. *Journal of Financial economics*, 101(3):621–640.

Edmans, A. (2022). The purpose of a finance professor. *Financial Management*, 51(1):3–26.

Eisfeldt, A. L. and Papanikolaou, D. (2013). Organization capital and the cross-section of expected returns. *The Journal of Finance*, 68(4):1365–1406.

Fabozzi, F. J., Ma, K., and Oliphant, B. J. (2008). Sin stock returns. *The Journal of Portfolio Management*, 35(1):82–94.

Flammer, C. (2015). Does corporate social responsibility lead to superior financial performance? a regression discontinuity approach. *Management Science*, 61(11):2549–2568.

Frank, R. H., Gilovich, T., and Regan, D. T. (1993). Does studying economics inhibit cooperation? *Journal of economic perspectives*, 7(2):159–171.

Frank, R. H., Gilovich, T. D., and Regan, D. T. (1996). Do economists make bad citizens? *Journal of Economic Perspectives*, 10(1):187–192.

Frey, B. S. and Meier, S. (2003). Are political economists selfish and indoctrinated? evidence from a natural experiment. *Economic Inquiry*, 41(3):448–462.

Friedman, M. (1970). The social responsibility of business is to increase its profits. *The New York Times Magazine*, pages 32–33.

Gantchev, N., Giannetti, M., and Li, R. (2022). Does money talk? divestitures and corporate environmental and social policies. *Review of Finance*, (Forthcoming).

Gibson, R., Glossner, S., Krueger, P., Matos, P., and Steffen, T. (2021). Do responsible investors invest responsibly? *Swiss Finance Institute Research Paper*, (20-13).

Gibson Brandon, R., Krueger, P., and Schmidt, P. S. (2021). Esg rating disagreement and stock returns. *Financial Analysts Journal*, 77(4):104–127.

Girardi, D., Mamunuru, S. M., Halliday, S. D., and Bowles, S. (2021). Does economics make you selfish? Technical report, Working Paper.

Hedblom, D., Hickman, B. R., and List, J. A. (2019). Toward an understanding of corporate social responsibility: Theory and field experimental evidence. *National Bureau of Economic Research Working Paper*.

Hoepner, A. G., Oikonomou, I., Sautner, Z., Starks, L. T., and Zhou, X. (2021). Esg shareholder engagement and downside risk. *Working Paper*.

Hong, H. and Kacperczyk, M. (2009). The price of sin: The effects of social norms on markets. *Journal of Financial Economics*, 93(1):15–36.

Hong, H. and Kostovetsky, L. (2012). Red and blue investing: Values and finance. *Journal of Financial Economics*, 103(1):1–19.

Imas, A. (2014). Working for the warm glow: On the benefits and limits of prosocial incentives. *Journal of Public Economics*, 114:14–18.

Krueger, P., Metzger, D., and Wu, J. (2022). The sustainability wage gap. *Swedish House of Finance Research Paper*, (20-14):21–17.

Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of financial economics*, 115(2):304–329.

Lins, K. V., Servaes, H., and Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *the Journal of Finance*, 72(4):1785–1824.

Naaraayanan, S. L., Sachdeva, K., and Sharma, V. (2021). The real effects of environmental activist investing. *European Corporate Governance Institute–Finance Working Paper*, (743).

Pástor, L., Stambaugh, R. F., and Taylor, L. A. (2022). Dissecting green returns. *Journal of Financial Economics*, 146(2):403–424.

Rice, A. and Schiller, C. (2022). When values align: Corporate philanthropy and employee turnover. *Working Paper*.

Riedl, A. and Smeets, P. (2017). Why do investors hold socially responsible mutual funds? *The Journal of Finance*, 72(6):2505–2550.

Schiller, C. (2018). Global supply-chain networks and corporate social responsibility. *Working Paper*.

Schneider, F., Brun, F., and Weber, R. A. (2020). Sorting and wage premiums in immoral work. *University of Zurich, Department of Economics, Working Paper*, (353).

Servaes, H. and Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. *Management science*, 59(5):1045–1061.

Starks, L. T., Venkat, P., and Zhu, Q. (2017). Corporate esg profiles and investor horizons. *Available at SSRN 3049943*.

Sun, L. and Abraham, S. (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics*, 225(2):175–199.

Wang, L., Malhotra, D., and Murnighan, J. K. (2011). Economics education and greed. *Academy of Management Learning & Education*, 10(4):643–660.

Zingales, L. (2000). In search of new foundations. *The journal of Finance*, 55(4):1623–1653.

Zingales, L. (2015). Presidential address: Does finance benefit society? *The Journal of Finance*, 70(4):1327–1363.

Figures

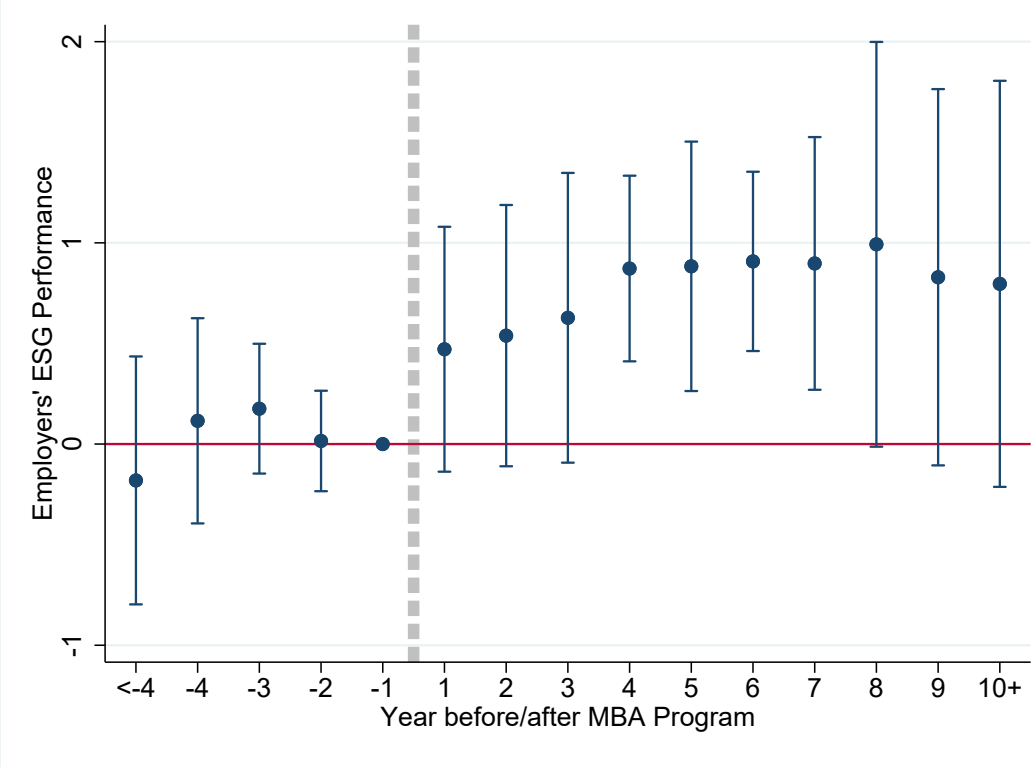

Figure 1: **Dynamics of employers' ESG performance before and after MBA programs with ESG courses**: The figure presents the effect of taking a mandatory ESG course in the MBA study, by the years relative to MBA study. Specifically, they are β_ks from the following regression:

$$\begin{aligned} ESG\ Perf_{i,t} = &\sum_k \beta_k \mathbf{1}\{Year\text{-}to\text{-}MBA_{i,t} == k\} \times \mathbf{1}\{Taken\ ESG\ Course_i\} \\ &+ PostMBA_{i,t} \times School \times Year\ FE \\ &+ PostMBA_{i,t} \times Cohort \times Year\ FE \\ &+ log(size)_{i,t} + \alpha_i + \epsilon_{i,t} \end{aligned} \tag{8}$$

where the dependent variable is the ESG score of the employer of individual i in year t, constructed from the MSCI KLD database. $\mathbf{1}\{Taken\ ESG\ Course_i\}$ is a dummy equal to 1 if there is a mandatory ESG course in the curriculum of the MBA program that individual i attended and zero otherwise. $PostMBA_{i,t} \times School \times Year\ FE$ are fixed effects of the interactions of $post-MBA$ dummy, schools and years. $PostMBA_{i,t} \times Cohort \times Year\ FE$ are fixed effects of the interactions of $post-MBA$ dummy, MBA cohorts and years. $log(size)$ is defined as the natural logarithm of total assets. α_i is person fixed effects. Standard errors are double clustered by school and by cohort. Confidence interval are at the 95% level.

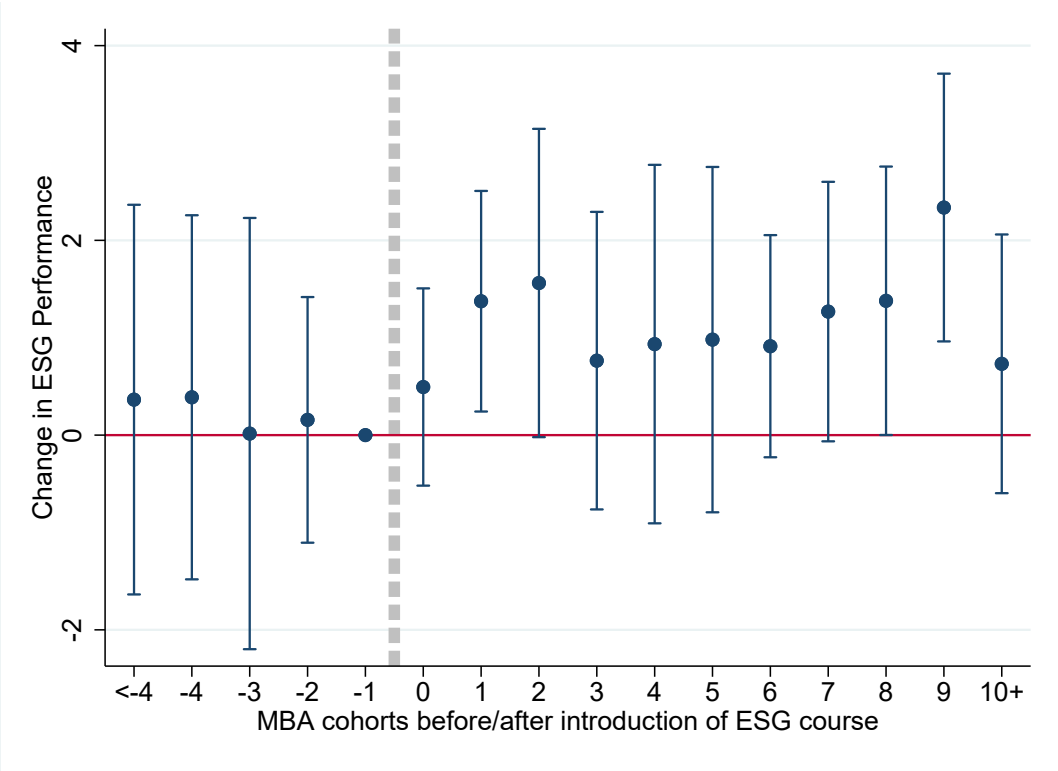

Figure 2: **Effect of employers' ESG performance change by cohorts relative to introduction of ESG courses** : The figure presents the effect of taking a mandatory ESG course in the MBA study on the employers' ESG performance, by cohorts relative to the cohort when the schools introduce mandatory ESG courses. Specifically, they are β_k from the following regression:

$$\begin{aligned} ESG\ Perf_{i,t} = & \sum_v \beta_v PostMBA_{i,t} \times \mathbf{1}\{MBA\text{-}cohorts_i - ESG\text{-}courses\text{-}start == v\} \\ & + PostMBA_{i,t} \times School \times Year\ FE \\ & + PostMBA_{i,t} \times Cohort \times Year\ FE \\ & + log(size)_{i,t} + \alpha_i + \epsilon_{i,t} \end{aligned} \tag{10}$$

where the dependent variable is the ESG score of the employer of invididual i in year t, constructed from the MSCI KLD database. $PostMBA_{i,t}$ is dummy which equals to 1 if in year t individual i has already finished an MBA and zero otherwise. $PostMBA_{i,t} \times School \times Year\ FE$ are fixed effects of the interactions of $post-MBA$ dummy, schools and years. $PostMBA_{i,t} \times Cohort \times Year\ FE$ are fixed effects of the interactions of $post-MBA$ dummy, mba cohorts and years. $log(size)$ is defined as the natural logarithm of total assets. α_i is person fixed efffect. Standard errors are double clustered by school and by cohort. Confidence interval are at 95% level.

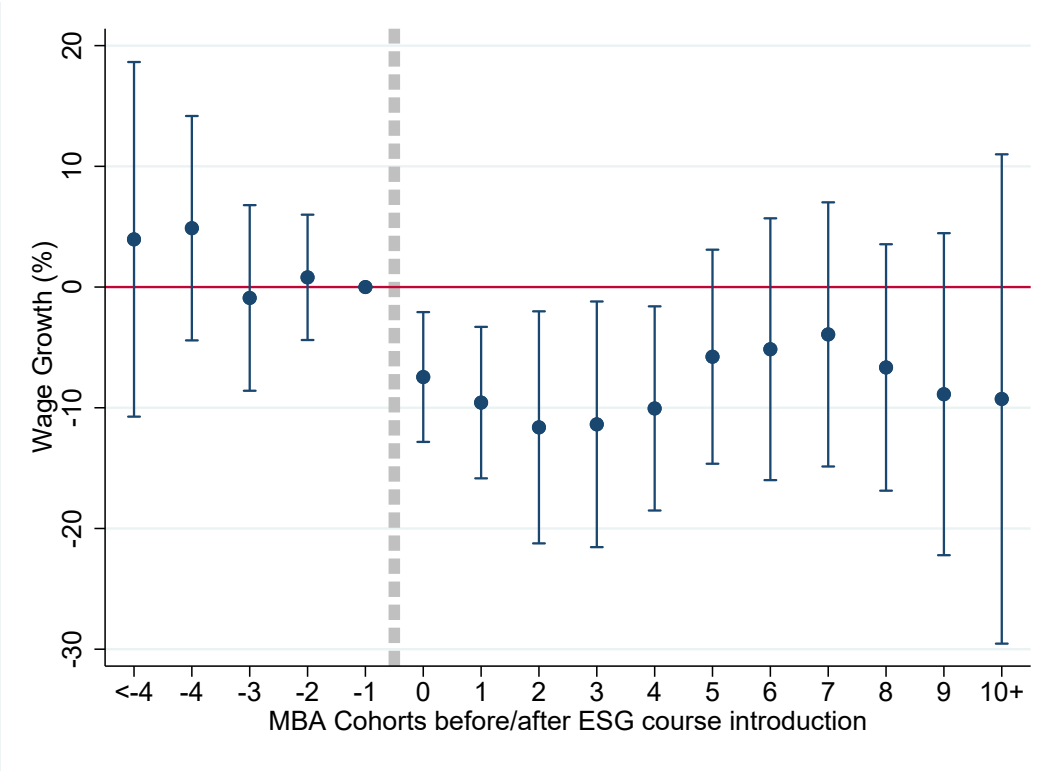

Figure 3: **Effect of ESG courses on wages** : The figure presents the effect of introducing a mandatory ESG course on the wage of graduates at school level, by cohorts relative to the cohort when the schools introduce mandatory ESG courses. Speciically, they are β_k from the following regression:

$$Wage\ Growth_{s,t} = \sum_{v} \beta_v \mathbf{1}\{MBA\text{-}cohorts_{s,t} - ESG\text{-}courses\text{-}start_s == v\} + \alpha_s + \lambda_t + \epsilon_{s,t} \tag{12}$$

where the dependent variable is survey-based wage growth (comparing pre-MBA and 3 years after completing MBA) of each cohort. α_s and λ_t are school fixed effects and cohort fixed effects respectively. Standard errors are double clustered by school. Confidence interval are at 95% level.

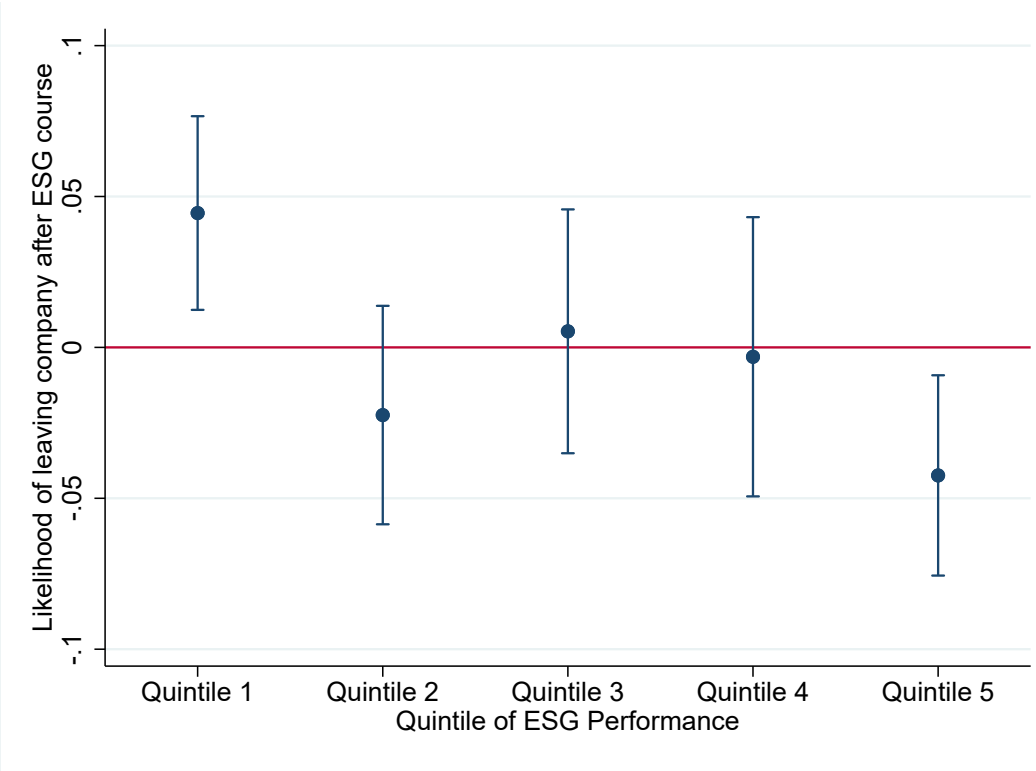

Figure 4: **Likelihood of leaving companies for graduates with/without ESG education**: This figure illustrates the likelihood of leaving the same company, between graduates with/without ESG education, when the company has high/low ESG performance. On the horizontal axis it is quantile of companies based on the (standardized) ESG performance. The plotted coefficients are β^q from the following regressions:

$$\begin{aligned}\mathbf{1}\{Leave\ Company_{i,t+1}\} = &\sum_{q=1}^{5} \beta^q \mathbf{1}\{ESG\,Course_i\} \times \mathbf{1}\{Quintile\,ESG\,Performance_{i,t} = q\} \\ &+ Firm \times YearFE \\ &+ Cohort \times YearFE \\ &+ School \times YearFE \\ &+ \sum_{s=1}^{S} School_s \times ESG\ Perf_{i,t} \\ &+ \sum_{g=1}^{G} Cohort_g \times ESG\ Perf_{i,t} \\ &+ \epsilon_{i,t}\end{aligned} \tag{14}$$

where the dependent variable is the ESG score of the employer of invididual i in year t, constructed from the MSCI KLD database. The dependent variable is a dummy which equals to 1 if in year $t+1$ the individual leaves the company she/he works at in year t. $ESG\,Course$ is a dummy which equals to one if the MBA program that the individual attends has a mandatory ESG course. $Quintile\,ESG\,Perf$ is the quantile of (standardized) ESG performance of companies. Fixed effects include schools interacted with years fixed effects, cohorts interacted with years fixed effects, and firms interacted with years fixed effects. $School \times ESG\,Perf, Controls$ is a set of control variables where there there is one (standardized) ESG performance control variable for each school. $Cohort \times ESG\,Perf, Controls$ is a set of control variables where there there is one (standardized) ESG performance control variable for each cohort. Standard errors are double clustered by school and by cohort. Confidence interval are at 95% level.

Tables

Panel A: MBA programs for which mandatory ESG courses start year is not observable

School	Year ESG course start	Course Name when start	Course Name in 2021
UCBerkeley	Before 1996	Managing Business Ethics in the Global Economy	Ethics and Responsibility in Business
CEIBS	Before 1997	Business Ethics	Business Ethics
Minnesota	Before 1997	Business, Government, & Society	Business Ethics
LBS	Before 2001	Ethics & Professional Standards	Ethics and Corporate Social Responsibility
IESE	Before 2002	Ethics, Leadership and Values	Ethics, Leadership and Values
Georgetown	Before 2003	Business Ethics	Ethical Leadership
UNC	Before 2003	Ethics	Ethics, Corporate, and Individual Responsibility
Cambridge	Before 2005	Corporate Governance and Ethics	Business & Society
Virginia	Before 2006	Business Ethics	Business Ethics
Toronto	Before 2006	Leadership and Ethics	Ethics
Rice	After 2016	Corporate Social Responsibility	Corporate Social Responsibility
IMD	After 2018	Business & Society	Business & Society

Panel B: MBA programs for which mandatory ESG courses start year is observable

School	Year ESG course start	Course Name when start	Course Name in 2021
Wharton	2000	Ethics and Management	Must choose 1 from several Responsibility Courses
Stanford	2001	Ethics	Ethics in Management
HKU	2003	Business Ethics Workshop	Business Ethics
CMU	2004	Managerial Environment and Business Ethics	Ethics and Leadership
BostonU	2004	Ethics & Law	Organizations, Markets and Society
Queens	2005	Corporate Social Responsibility	Leading with Integrity
Duke	2006	Intergative Leadership and Ethics	Leadership, Ethics & Organizations
Yale	2007	State & Society	State & Society
Chicago	2007	Business, Politics, and Ethics	Business, Politics, and Ethics
Washington	2007	Ethical Leadership & Decision Making	Ethical Leadership & Decision Making
Indian School of Business	2007	Government, Society & Business	Responsible Leadership
Vanderbilt	2008	Each concentration needs to take an ethics course (mostly CSR)	Ethics in Business
Dartmouth	2010	Must choose 1 from several CSR courses	Must choose 1 from several CSR courses
HEC	2012	Ethics	Ethics and Sustainability
ESADE	2014	Managing Ethics and Social Responsibility	Managing Ethics and Social Responsibility
INSEAD	2017	Business and Society	Business and Society
Bocconi	2018	Ethics and Corporate Citizenship	Corporate Sustainability
Oxford	2021	Capitalism in Debate	Capitalism in Debate

Panel C: MBA programs without mandatory ESG courses until 2021

School	Year ESG course start	Course Name when start	Course Name in 2021
Babson	-	-	-
Columbia	-	-	-
Cornell	-	-	-
Emory	-	-	-
Harvard	-	-	-
HKUST	-	-	-
IndianaU	-	-	-
Manchester	-	-	-
Michigan	-	-	-
MIT	-	-	-
Northwestern	-	-	-
NUS	-	-	-
NYU	-	-	-
SMU Cox	-	-	-
UCLA	-	-	-
USC	-	-	-
Warwick	-	-	-
Western	-	-	-
WUSTL	-	-	-
York	-	-	-

Table 1: **Years when schools introduce mandatory ESG courses into MBA curriculum**: This table illustrates whether and when each school introduces mandatory ESG courses into MBA curricula, and the names of the mandatory ESG courses. In Panel A are the schools that the first year of mandatory ESG courses are not observable due to the availability of webpage archives. In Panel B are the schools that the first year of mandatory ESG courses are observable. In Panel C are the schools that do not have mandatory ESG courses until 2021.

Panel A: Individual-year level variables

	Obs	Mean	Sd	5%	25%	50%	75%	95%
ESG Performance	90,571	11.10	3.55	6.00	9.00	10.00	13.00	18.00
Post-MBA	90,571	0.86	0.35	0.00	1.00	1.00	1.00	1.00
ESG Course	90,571	0.07	0.26	0.00	0.00	0.00	0.00	1.00
Post-MBA × ESG Course	90,571	0.04	0.20	0.00	0.00	0.00	0.00	0.00
Total Asset (Bil USD)	90,571	190.67	425.32	0.39	3.22	18.50	113.33	1,051.45
Debt/Asset	90,571	0.64	0.27	0.20	0.45	0.62	0.88	0.96
CapEx/Asset	90,349	0.03	0.04	0.00	0.00	0.02	0.05	0.10
ROA	90,569	0.04	0.16	-0.09	0.01	0.04	0.09	0.18
Domestic Firm	90,571	0.90	0.30	0.00	1.00	1.00	1.00	1.00
Same State Firm	90,571	0.20	0.40	0.00	0.00	0.00	0.00	1.00
Adjacent State Firm	90,571	0.35	0.48	0.00	0.00	0.00	1.00	1.00
Industry Sustainability Score	620,269	3.31	0.53	2.27	3.04	3.61	3.67	3.77
Dummy(Sin Industry) × 100	620,269	0.39	6.22	0.00	0.00	0.00	0.00	0.00
log(CarbonIntensity)	39,347	3.08	1.55	1.06	2.08	2.84	3.80	6.13
Num. E&S News	49,954	11.74	23.58	0.00	0.00	2.00	11.00	63.00

Panel B: Individual level variables

	Obs	Mean	Sd	5%	25%	50%	75%	95%
Dummy(Causes care about)	14,203	0.12	0.32	0.00	0.00	0.00	0.00	1.00
Num. words in self description	14,203	78.60	90.71	1.00	1.00	49.00	121.00	278.00
Dummy(Disclose Volunteer Experience)	14,203	0.24	0.43	0.00	0.00	0.00	0.00	1.00
Num. words in job description	14,203	24.31	27.31	0.00	3.00	15.43	36.19	81.29
Num. words in education description	14,203	3.80	7.12	0.00	0.00	0.00	5.00	18.00
Dummy(bachelor school same as MBA)	14,203	0.06	0.23	0.00	0.00	0.00	0.00	1.00
Dummy(MBA school close to home)	14,203	0.19	0.39	0.00	0.00	0.00	0.00	1.00

Panel C: School-year level variables

	Obs	Mean	Sd	5%	25%	50%	75%	95%
Wage Growth (%)	761	124.15	34.60	85.00	100.00	114.00	140.00	194.00
Salary (thousand USD)	725	132.35	30.07	89.01	110.09	130.04	152.73	184.10

Table 2: **Summary Statistics**: This table reports summary statistics of the main variables used in the paper. In Panel A, the observations are at indiviudal-year level. ESG performance is the ESG sccore of the company each invidual works at in each year, constructed from the MSCI KLD database. $Post\text{-}MBA$ is a dummy variable which equals to 1 if in the year the students have already finished the MBA study. $ESG\,Course$ is a dummy variable, which equals to 1 if the MBA program the indivdual attends has a mandatory ESG course. $Post\text{-}MBA \times ESG\,Course$ is a dummy variable which equals to 1 if both $Post\text{-}MBA$ and $ESG\,Course$ equal to 1. $Total\,Asset$, $Debt/Asset$, $CapEx/Asset$, ROA are the fundamentals of firms where each individual works each year. $Domestic\,Firm$, $Same\,State\,Firm$ and $Adjacent\,Stat\,Firm$ are dummy variables indicating whether the firm is in the same country, same state, and same or adjacent state of the MBA school the individual attends. $Industry\,Sustainability\,Score$ are survey-based sustainability scores (at GICS industry group level) based on Krueger et al. (2022). $Dummy(Sin\,Industry)$ is a dummy variable indicating alcohol, tobacco, gambling industries. $log(CarbonIntensity)$ is the natural logarithm of firm's carbon intensity, defined as carbon emissions divided by revenue. $Num.E\&S\,News$ is the number of negative E&S news for the firm in the year. In Panel B, the variables are at individual level. $Dummy(Causes\,care\,about)$ is a dummy variable indicating the individual's LinkedIn Profile has the "causes one cares about" section. $Dummy(Disclose\,Volunteer\,Experience)$ is a dummy variable indicating the individual's LinkedIn Profile has the "Volunteer Experience" section. $Num.\,words\,in\,self\,description$, $Num.\,words\,in\,job\,description$ and $Num.\,words\,in\,education\,description$ are average number of words in the self description, job description and education sections in the LinkedIn Profile. $Dummy(bachelor\,school\,same\,as\,MBA)$ is a dummy variable indicating the indvidual's bachelor university is the same as MBA. $Dummy(MBA\,school\,close\,to\,home)$ is a dummy variable indicating the individual attends a MBA school that is within 300 kilometers to their home address (proxied by the address of previous employer). In panel C, the school-level variables are survey-based, collected from the Financial Times. $Wage\,Growth$ is the percentage growth of wages comparing pre-MBA and three years after MBA. $Salary$ is average salary in USD three years after MBA. Detailed variable definitions are in Table A15.

	ESG Performance					
	(1)	(2)	(3)	(4)	(5)	(6)
Post-MBA × ESG Course	0.712** (2.265)	0.648** (2.046)	0.743** (2.424)	0.688** (2.190)	0.810** (2.707)	0.538** (2.672)
log(size)		0.636*** (30.866)	0.643*** (31.805)	0.634*** (30.039)	0.641*** (31.017)	0.692*** (32.306)
Individual FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓				
Cohort × Post-MBA FE	✓	✓	✓			
School × Post-MBA FE	✓	✓		✓		
Cohort × Post-MBA × Year FE				✓	✓	✓
School × Post-MBA × Year FE			✓		✓	✓
Industry × Year FE						✓
Observations	90,571	90,571	90,571	90,571	90,571	90,571
R^2	0.63	0.67	0.68	0.68	0.68	0.75

Table 3: **Employers' ESG performance before/after ESG courses**: This table reports results for regressions investigating how the employers' ESG performance changes before and after ESG courses in the MBA programs. The dependent variable is the employers' ESG scores. The $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $log(size)$ is defined as the natural logarithm of total assets. All the regressions include individual fixed effects. Industry is defined at GICS Industry Group level. Other fixed effects include the interaction of $Post\text{-}MBA$ and schools, the interaction of $Post\text{-}MBA$ and cohorts. Some specifications include additional interactions with years fixed effects. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	$\Delta ESG\,Perf$		$\Delta ESG\,Perf$, same company		$\Delta ESG\,Perf$, switch company	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-MBA × ESG Course	0.530** (2.323)	0.534** (2.344)	0.116 (0.951)	0.129 (1.085)	1.587*** (3.411)	1.575*** (3.635)
School × Post-MBA FE	✓	✓	✓	✓	✓	✓
Cohort × Post-MBA FE	✓	✓	✓	✓	✓	✓
Individual FE	✓	✓	✓	✓	✓	✓
Year FE		✓		✓		✓
Observations	74,915	74,915	60,298	60,298	14,617	14,617
R^2	0.05	0.05	0.10	0.11	0.23	0.23

Table 4: **The change of ESG performance at same/different companies**: This table reports results for regressions investigating how the change of employers' ESG performance is different when the students have taken ESG courses. The dependent variable is the change in emploers' (standardized) ESG score in two consecutive years, defined in Section 4.2. Columns (1) and (2) include the full sample. Columns (3) and (4) include the subsample where the change in ESG scores is conditional on same company. Columns (5) and (6) include the subsample where the change in ESG scores is conditional on different companies. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $ESG\,Course$ is a dummy which equals to 1 if the MBA program the individual attends has a mandatory ESG course. All the specifications include $Post\text{-}MBA$ interacted with schools fixed effects, and $Post\text{-}MBA$ interacted with cohorts fixed effects. Some specifications also include year fixed effects. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Industry Sustainability		Dummy(Sin) × 100	
	(1)	(2)	(3)	(4)
Post-MBA × ESG Course	0.038**	0.039**	-0.286**	-0.312**
	(2.278)	(2.487)	(-2.720)	(-2.617)
Individual FE	✓	✓	✓	✓
Cohort × Post-MBA FE	✓		✓	
Cohort × Post-MBA × Year FE		✓		✓
School × Post-MBA × Year FE	✓	✓	✓	✓
Observations	620,269	620,269	620,269	620,269
R^2	0.55	0.55	0.40	0.40

Table 5: **Industry choices before/after ESG courses**: This table reports results for regressions investigating how the choices of industries change before and after ESG courses in the MBA programs. In columns (1) and (2), the dependent variable is the survey-based industry-level (GICS Industry Group level) sustainability score, based on Krueger et al. (2022). In columns (3) and (4), the dependent variable is a 100 × a dummy indicating sin industry (alcohol, tobacco, and gaming). The $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. All the regressions include individual fixed effect. Other fixed effects include the interaction of $Post\text{-}MBA$, schools and years, and the interaction of $Post\text{-}MBA$, cohorts and with years. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance (KLD)		log(CarbonIntensity)		log(E&S news)	
	(1)	(2)	(3)	(4)	(5)	(6)
ESG Course	0.292**	0.187**	-0.208**	-0.069*	-0.105**	-0.071*
	(2.040)	(2.187)	(-2.258)	(-1.836)	(-2.253)	(-1.838)
log(size)	0.538***	0.715***	-0.254***	0.056***	0.451***	0.480***
	(28.132)	(39.859)	(-24.643)	(4.447)	(60.260)	(57.769)
Cohort × Year FE	✓	✓	✓	✓	✓	✓
School × Year FE	✓	✓	✓	✓	✓	✓
Industry × Year FE		✓		✓		✓
Observations	77,941	77,940	39,347	39,333	49,954	49,954
R^2	0.21	0.45	0.19	0.69	0.58	0.65

Table 6: **Employers' ESG performance for employees with/without ESG courses, Post-MBA study**: This table reports results for regressions investigating whether after MBA, graduates who have taken ESG courses during MBA work for better ESG companies. The regressions only include the Post-MBA submaple. In Columns (1) and (2), the dependent variable is the ESG performance measure (KLD ESG score). In Columns (3) and (4), the dependent variable is the carbon intensity of firms (CO2 emission divided by revenue). In Columns (5) and (6), the dependent variable is the natural logarithm of 1 + number of negative environmental and social news recorded by RepRisk. $ESG\,Course$ is a dummy which equals to one if the MBA program that the individual attends has a mandatory ESG course. Fixed effects include school/cohort interacted with years fixed effects. columns (2), (4) and (6) also contain Industry interacted with years fixed effects. Industry is defined at GICS Inudstry Group level. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Cohorts around ESG courses introduction			
	(1) [s-1,s+1]	(2) [s-3,s+3]	(3) [s-5,s+5]	(4) [s-10,s+10]
Post-MBA × ESG Course	0.638** (2.599)	0.873*** (3.309)	0.803*** (2.804)	0.858*** (3.261)
log(size)	0.621*** (28.865)	0.618*** (27.156)	0.619*** (26.848)	0.625*** (29.079)
Individual FE	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓
Observations	56,470	60,423	64,236	73,315
R^2	0.68	0.69	0.68	0.68

Table 7: **Employers' ESG performance before/after MBA with ESG courses - cohorts around ESG courses introduction**: This table reports results for regressions investigating how the employers' ESG performance changes before and after ESG courses in the MBA programs, restricting the sample to close cohorts around the cohort when the schools start to have mandatory ESG courses. The dependent variable is the employers' ESG scores. In columns (1)-(4) I only include the MBA intakes in ± 1, ± 3, ± 5, ± 10 years relative to the mandatory ESG courses start. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. All the regressions include individual fixed effects, $Post\text{-}MBA$ interacted with schools interacted with years fixed effects, and $Post\text{-}MBA$ interacted with cohorts interacted with years fixed effects. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Real ESG Intro Year	Placebo ESG Intro Year					
	(1)	(2) -6	(3) -4	(4) -2	(5) +2	(6) +4	(7) +6
Post-MBA × ESG Course	0.638** (2.599)	-0.203 (-0.256)	-0.012 (-0.015)	0.538 (0.416)	-0.177 (-0.182)	0.106 (0.142)	-0.001 (-0.001)
log(size)	0.621*** (28.865)	0.631*** (28.236)	0.623*** (28.062)	0.619*** (26.755)	0.625*** (28.105)	0.621*** (28.439)	0.624*** (28.630)
Individual FE	✓	✓	✓	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓	✓
Observations	56,470	57,574	57,367	56,913	55,793	55,062	54,698
R^2	0.68	0.68	0.69	0.68	0.68	0.68	0.68

Table 8: **Placebo tests with fake ESG introduction year**: This table reports results for regressions investigating how the employers' ESG performance changes before/after ESG courses, with cohorts close to real/fake ESG courses introduction year. The dependent variable is the employers' ESG scores. In column (1) I include the MBA intakes $[s-1, s+1]$, where s is the year when schools introduce mandatory ESG courses. In column (2)-(7), I generate fake ESG courses start year s' , which is -6, -4, -2, +2, +4, +6 years relative to the real start year, and include the cohorts $[s'-1, s'+1]$. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. All the regressions include individual fixed effects, $Post\text{-}MBA$ interacted with schools interacted with years fixed effects, and $Post\text{-}MBA$ interacted with cohorts interacted with years fixed effects. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance			
	(1)	(2)	(3)	(4)
Post-MBA × ESG Course, Domestic Firms	0.725**			
	(2.153)			
Post-MBA × ESG Course, Foreign Firms	1.562***			
	(3.405)			
Post-MBA × ESG Course, Same State Firms		0.602		
		(0.709)		
Post-MBA × ESG Course, Diff State Firms		0.854***		
		(2.764)		
Post-MBA × ESG Course, Adjacent State Firms			0.523	
			(1.138)	
Post-MBA × ESG Course, Nonadjacent State Firms			0.971***	
			(3.471)	
Post-MBA × ESG Course, Large Firms				0.831***
				(2.817)
Post-MBA × ESG Course, Small Firms				0.670*
				(1.783)
log(size)	0.641***	0.641***	0.642***	0.640***
	(30.953)	(30.939)	(31.061)	(31.179)
Individual FE	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓
Observations	90,571	90,571	90,571	90,571
R^2	0.68	0.68	0.68	0.68

Table 9: **Employers' ESG performance after ESG education, splitted by firm characteristics**: This table reports the results for regressions investigating how the employers' ESG performance changes before/after ESG courses, splitted by firm locations and size. The dependent variable is the employers' ESG scores. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. In column (1), the $Post\text{-}MBA \times ESG\,Course, Doemstric\,Firms$ ($Post\text{-}MBA \times ESG\,Course, Doemstric\,Firms$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the headquarter of the firm locates in the same (different) country as the MBA school that the individual attends. In column (2), the $Post\text{-}MBA \times ESG\,Course, Same\,State$ ($Post\text{-}MBA \times ESG\,Course, Diff\,State$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the headquarter of the firm locates in the same (different) state as the MBA school that the individual attends. In column (3), the $Post\text{-}MBA \times ESG\,Course, Adjacent\,State$ ($Post\text{-}MBA \times ESG\,Course, Nonadjacent\,State$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the headquarter of the firm locates in the same or adjacent (nonadjacent) state as the MBA school that the individual attends. Firms in different countries are considered different and non-adjacent firms. In column (4), the $Post\text{-}MBA \times ESG\,Course, Large\,firms$ ($Post\text{-}MBA \times ESG\,Course, Small\,firms$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the firm's size is above (below) the median of all firms in the same year. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance		
	(1)	(2)	(3)
Post-MBA × ESG Course, Cohorts ≤ 2008	0.966***		
	(3.223)		
Post-MBA × ESG Course, Cohorts > 2008	0.591**		
	(2.479)		
Post-MBA × ESG Course, school close to home		1.066***	
		(4.257)	
Post-MBA × ESG Course, school far from home		0.703*	
		(2.003)	
Post-MBA × ESG Course, school same as bachelor			0.911
			(1.422)
Post-MBA × ESG Course, school diff. from bachelor			0.804***
			(2.765)
log(size)	0.641***	0.642***	0.641***
	(31.052)	(31.166)	(31.038)
Individual FE	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓
Observations	90,571	90,571	90,571
R^2	0.68	0.68	0.68

Table 10: **Employers' ESG performance after ESG education, splitted by student characteristics**: This table reports the results for regressions investigating how the employers' ESG performance changes before/after ESG courses, splitted by students' characteristics. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. In column (1), $Post\text{-}MBA \times ESG\,Course, Cohort \leq 2008$ ($Post\text{-}MBA \times ESG\,Course, Cohort > 2008$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and MBA graduation year is no later than (later than) 2008. In column (2), $Post\text{-}MBA \times ESG\,Course, school\,close\,to\,home$ ($Post\text{-}MBA \times ESG\,Course, school\,far\,from\,home$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the school is less (more) than 300 kilometres away from the headquarter of previous employer. In column (3), $Post\text{-}MBA \times ESG\,Course, school\,same\,as\,bachelor$ ($Post\text{-}MBA \times ESG\,Course, school\,diff\,from\,bachelor$) is a dummy variable indicating $Post\text{-}MBA \times ESG\,Course = 1$ and the MBA school is same as (different from) the student's bachelor school. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Salary Increase (%)		log(Salary)	
	(1)	(2)	(3)	(4)
Post × ESG Course	-10.926*		-0.041	
	(-1.986)		(-1.433)	
Post × ESG Course, Cohort ≤ 2008		-10.764**		-0.032
		(-2.446)		(-1.532)
Post × ESG Course, Cohort > 2008		-10.967*		-0.042
		(-1.827)		(-1.388)
School FE	✓	✓	✓	✓
Cohort FE	✓	✓	✓	✓
Observations	761	761	725	725
R^2	0.74	0.74	0.87	0.87

Table 11: **Wages before/after introducing mandatory ESG courses**: This table reports the results for regressions investigating how wages of graduates change after schools introduce mandatory ESG courses. In columns (1) and (2), the dependent variable is the school-level wage growth (in percentage points) comparing pre-MBA salary and three years after completion of MBA degree. In columns (3) and (4), the dependent variable is the natural logarithm of salary (in dollar). $Post \times ESGCourse$ is a dummy which equals to one if the year is after schools' introduction of mandatory ESG courses. In columns (2) and (4), $Post \times ESG\,Course, Cohort \leq 2008$ ($Post \times ESG\,Course, Cohort > 2008$) is a dummy variable which equals to 1 if $Post \times ESG\,Course$ equals to one and graduation year is no later than (after) 2008. In the parentheses are the t-statistics with standard errors clustered by school. * p<.10; ** p<.05; *** p<.01.

	Dummy(Causes care about)			Excl. non-ESG causes
	(1)	(2)	(3)	(4)
ESG Course	0.010	0.015*	0.016**	0.015**
	(0.947)	(1.944)	(2.228)	(2.066)
log(num. words self-description)		0.021***	0.016***	0.015***
		(14.950)	(10.617)	(9.767)
Volunteer Experience		0.156***	0.150***	0.149***
		(17.458)	(17.348)	(17.361)
log(num. words edu-description)			0.046***	0.045***
			(5.121)	(5.259)
log(num. words job-description)			0.015***	0.015***
			(8.198)	(8.009)
School FE	✓	✓	✓	✓
Cohort FE	✓	✓	✓	✓
Observations	14,203	14,203	14,203	14,203
R^2	0.01	0.08	0.09	0.09

Table 12: **Likelihood of stating ESG causes with/without ESG education**: This table reports the results for regressions investigating whether graduates with ESG courses in MBA programs are more likely to state the ESG causes on their LinkedIn CV. In columns (1) to (3), the dependent variable is a dummy which equals to one if the individual's LinkedIn profile has the "Causes one cares about" section. In column (4), the dependent variable is a dummy which equals to one if the individual's LinkedIn profile has the "Causes one cares about" and in the section she states at least one ESG-related casues. $ESG\,Course$ is a dummy variable which equals to one if the MBA program that the individual attends has a mandatory ESG course. $log(num.\,words\,self\text{-}description)$ is the natural logarithm of the number of words in the self-description section. $VolunteerExperience$ is a dummy variable which equals to one if the individual's profile has a "Volunteering" section. $log(num.\,words\,edu\text{-}description)$ is the natural logarithm of the average number of words in the "Education" section. $log(num.\,words\,job\text{-}description)$ is the natural logarithm of the average number of words in the "Experience" section. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Dummy(Leave Company)			
	(1)	(2)	(3)	(4)
ESG Course × ESG Perf	-0.004**	-0.005**	-0.006***	-0.006**
	(-2.488)	(-2.217)	(-2.922)	(-2.351)
ESG Course	-0.000	-0.000	0.000	0.000
	(-0.040)	(-0.044)	(0.026)	(0.011)
School × ESG Perf Controls		✓		✓
Cohort × ESG Perf Controls			✓	✓
Cohort × Year FE	✓	✓	✓	✓
School × Year FE	✓	✓	✓	✓
Firm × Year FE	✓	✓	✓	✓
Observations	67,636	67,636	67,636	67,636
R^2	0.21	0.21	0.21	0.22

Table 13: **Likelihood of leaving a company for graduates with/without ESG education**: This table reports the results for regressions investigating the difference in the likelihood of a leaving a company between graduates with/without ESG courses. The dependent variable is a dummy which equals to 1 if in year $t+1$ the individual leaves the company she/he works at in year t. $ESG\,Course$ is a dummy which equals to one if the MBA program that the individual attends has a mandatory ESG course. $ESG\,Perf$ is the (standardized) ESG performance of companies, defined in Section 4.2. All the specifications include schools interacted with years fixed effects, cohorts interacted with years fixed effects, and firm interacted with years fixed effects. $School \times ESG\,Perf, Controls$ is a set of control variables where there there is one (standardized) ESG performance control variable for each school. $Cohort \times ESG\,Perf, Controls$ is a set of control variables where there there is one (standardized) ESG performance control variable for each cohort. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

Appendix

A Appendix Figures and Tables

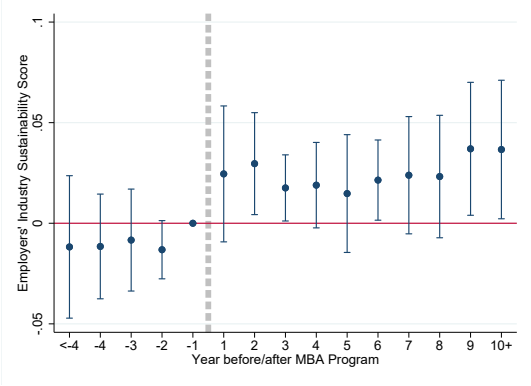

Figure A1: **Dynamics of industry choices before and after MBA programs with ESG courses**: The figure presents the effect of taking a mandatory ESG course in the MBA study on industry choices, by the years relative to MBA study. Specifically, they are β_k from the following regression:

$$\begin{aligned} Industry\ Sustainability\ Score_{i,t} = &\sum_k \beta_k \mathbf{1}\{Year\text{-}to\text{-}MBA_{i,t} == k\} \times \mathbf{1}\{Taken\ ESG\ Course_i\} \\ &+ PostMBA_{i,t} \times School \times Year\ FE \\ &+ PostMBA_{i,t} \times Cohort \times Year\ FE \\ &+ \alpha_i + \epsilon_{i,t} \end{aligned} \tag{16}$$

where the dependent variable is the survey-based industry-level (GICS Industry Group level) sustainability score, based on Krueger et al. (2022). $\mathbf{1}\{Taken\ ESG\ Course_i\}$ is a dummy which equals to 1 if there is a mandatory ESG course in the curriculum of the MBA program that individual i attended. $PostMBA_{i,t} \times School \times Year\ FE$ are fixed effects of the interactions of post-mba dummy, schools and years. $PostMBA_{i,t} \times Cohort \times Year\ FE$ are fixed effects of the interactions of post-mba dummy, mba cohorts and years. α_i is person fixed efffect. Standard errors are double clustered by school and by cohort. Confidence interval are at 95% level.

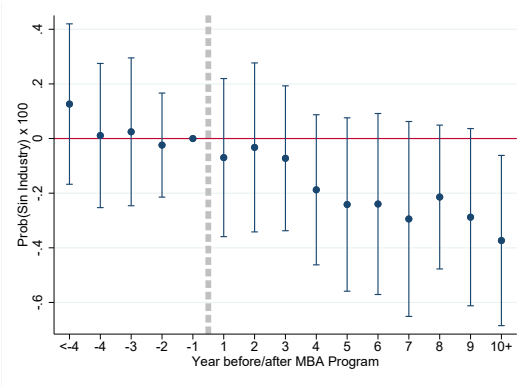

Figure A2: **Dynamics of working in sin industries before and after MBA programs with ESG courses**: The figure presents the effect of taking a mandatory ESG course in the MBA study on the likelihood of working in sin industries, by the years relative to MBA study. Specifically, they are β_k from the following regression:

$$\begin{aligned} Sin\ Industry_{i,t} \times 100 = &\sum_k \beta_k \mathbf{1}\{Year\text{-}to\text{-}MBA_{i,t} == k\} \times \mathbf{1}\{Taken\ ESG\ Course_i\} \\ &+ PostMBA_{i,t} \times School \times Year\ FE \\ &+ PostMBA_{i,t} \times Cohort \times Year\ FE \\ &+ \alpha_i + \epsilon_{i,t} \end{aligned} \tag{18}$$

where the dependent variable is the 100 times a dummy indicating sin industries (alcohol, tobacco and gaming). $\mathbf{1}\{Taken\ ESG\ Course_i\}$ is a dummy which equals to 1 if there is a mandatory ESG course in the curriculum of the MBA program that individual i attended. $PostMBA_{i,t} \times School \times Year\ FE$ are fixed effects of the interactions of post-mba dummy, schools and years. $PostMBA_{i,t} \times Cohort \times Year\ FE$ are fixed effects of the interactions of post-mba dummy, mba cohorts and years. α_i is person fixed efffect. Standard errors are double clustered by school and by cohort. Confidence interval are at 95% level.

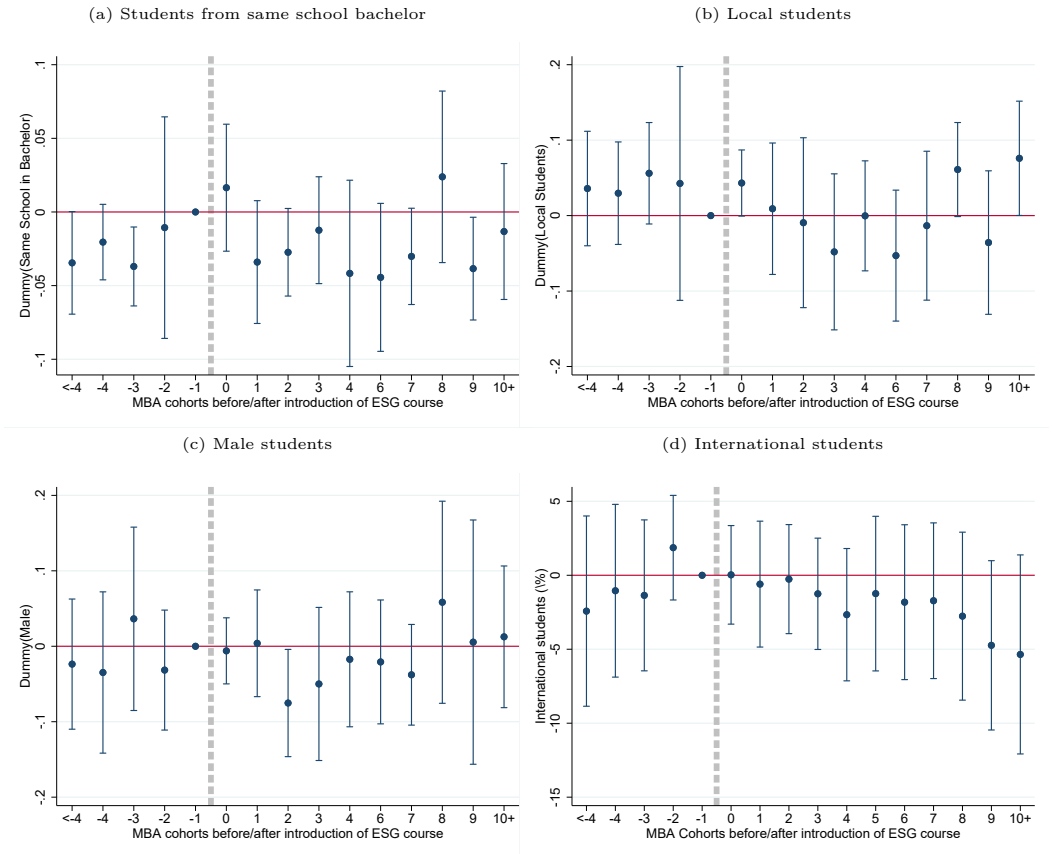

Figure A3: **Composition of students before/after introduction of ESG courses**: The figure presents the composition of students before/after schools introduce mandatory ESG courses, by cohorts relative to the cohort when the schools introduce mandatory ESG courses. The x-axis is the cohort relative to when the school introduce a mandatory ESG course. In subfigures (a)-(d), the y-axis is (a) dummary variable indicating the MBA schools is the same as student's bachelor school, (b) dummy variable indicating the school is less than 300 kilometres away from the headquarter of previous employer, (c) dummy variable indicating male students, (d) ratio of international students. In subfigure (a)-(c), the analysis is done at individual level. Specifically, they are coefficients β_v from the following regression:

$$\begin{aligned} Y_i = & \sum_k \beta_v \mathbf{1}\{MBA\text{-}cohorts_i - ESG\text{-}courses\text{-}start == v\} \\ & + SchoolFE \\ & + CohortFE \\ & + \epsilon_i \end{aligned}$$

and in subfigure (4), the analysis is done at school-cohort level (because of data availability). Specifically, they are coefficients β_v from the following regression:

$$\begin{aligned} Ratio\ international\ students_{s,t} = & \sum_k \beta_v \mathbf{1}\{MBA\text{-}cohorts_{s,t} - ESG\text{-}courses\text{-}start == v\} \\ & + SchoolFE + CohortFE + \epsilon_{s,t} \end{aligned}$$

Standard errors are double clustered by school and by cohort. Confidence interval are at 95% level.

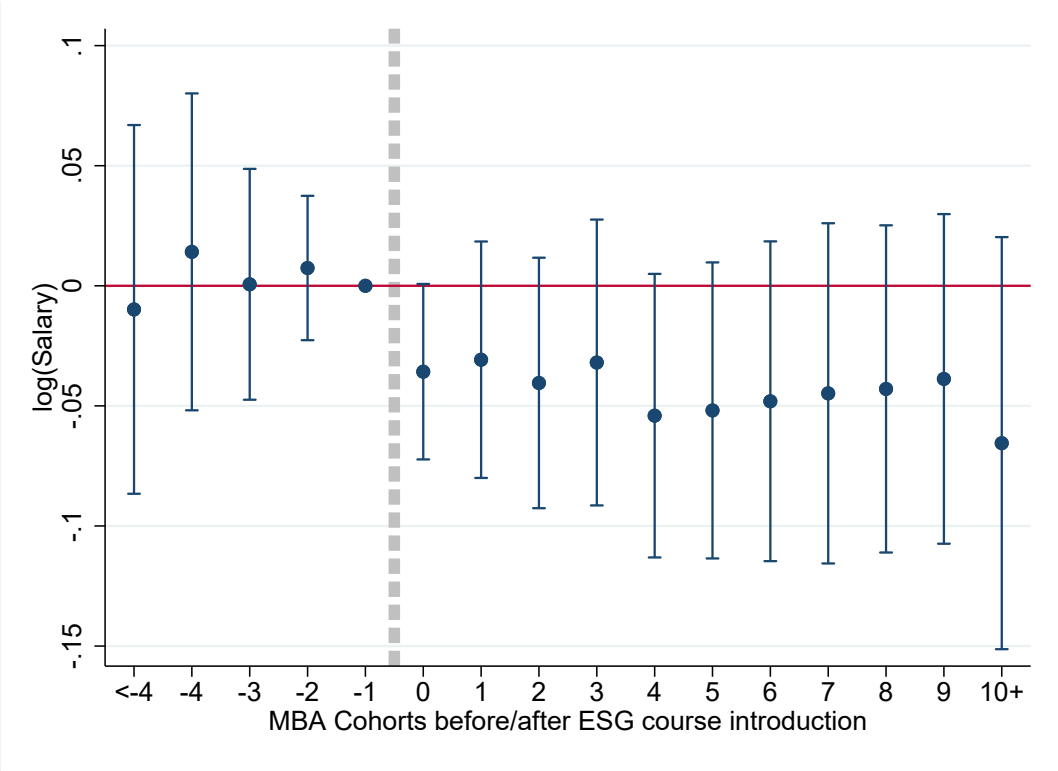

Figure A4: **Effect of ESG courses on wages** : The figure presents the effect of introducing a mandatory ESG course on the wage of graduates at school level, by cohorts relative to the cohort when the schools introduce mandatory ESG courses. Speciically, they are β_k from the following regression:

$$log(Wage)_{s,t} = \sum_k \beta_v \mathbf{1}\{MBA\text{-}cohorts_{s,t} - ESG\text{-}courses\text{-}start_s == v\} + \alpha_s + \lambda_t + \epsilon_{s,t} \tag{20}$$

where the dependent variable is the natural logarithm of survey-based salary (in dollar) 3 years after completing MBA of each cohort. α_s and λ_t are school fixed effects and cohort fixed effects respectively. Standard errors are double clustered by school. Confidence interval are at 95% level.

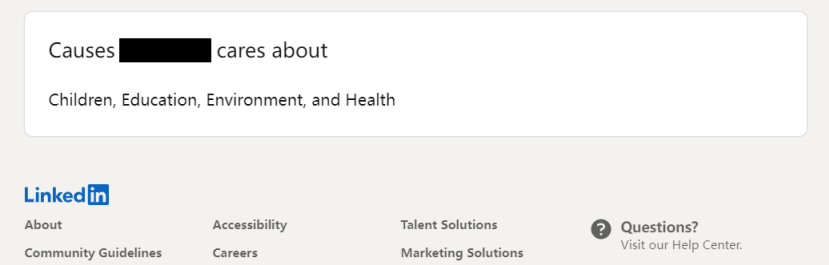

Figure A5: **Example of "Causes one cares about" section**: This figure shows an smapshot of an example of "Causes one cares about" section. The black bar covers the user's name for anonymity.

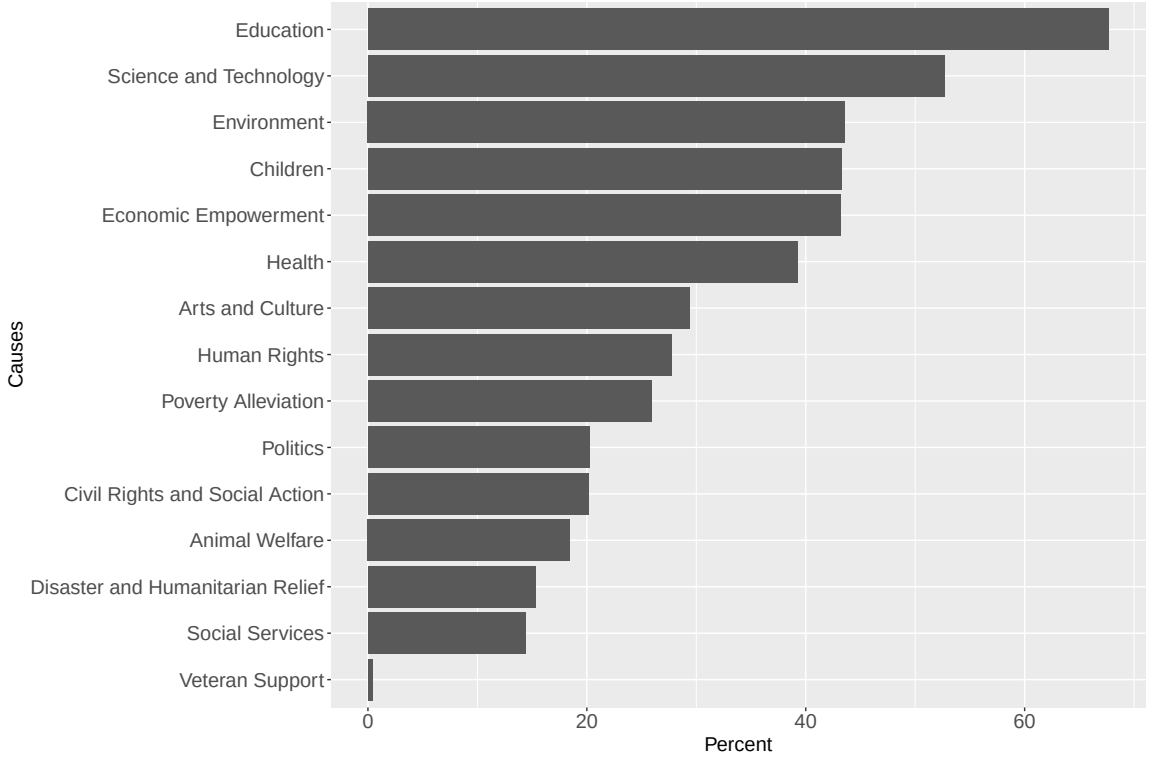

Figure A6: **Distribution of causes in "causes one cares about" section**: This figure plots the distribution of causes that users state to care about. On the x-axis is the percentage of users that state each cause, conditional on having the "Causes one cares about" section.

School	Number of Obseravations	Percentage of sample
Harvard	13,027	14.38
Wharton	9,618	10.62
Chicago	9,335	10.31
Northwestern	8,298	9.16
Columbia	6,797	7.50
NYU	4,847	5.35
Stanford	4,692	5.18
Michigan	3,895	4.30
Duke	3,568	3.94
UCLA	2,847	3.14
MIT	2,400	2.65
Cornell	1,994	2.20
USC	1,809	2.00
Dartmouth	1,792	1.98
INSEAD	1,690	1.87
BostonU	1,367	1.51
Babson	1,341	1.48
SMUCox	1,197	1.32
Emory	1,076	1.19
Yale	1,046	1.15
WUSTL	1,025	1.13
Vanderbilt	1,007	1.11
Western	991	1.09
CMU	944	1.04
Washington	833	0.92
York	555	0.61
IndianaU	469	0.52
Warwick	380	0.42
Queens	314	0.35
Manchester	300	0.33
HEC	288	0.32
Oxford	269	0.30
Bocconi	224	0.25
IndianSB	123	0.13
HKU	78	0.08
ESADE	58	0.06
HKUST	45	0.05
NUS	32	0.04

Table A1: **Number of observations by school**: This table illustrates the number of observations by schools. The first column is the mba schools. The second column is the number of observations of each school. The third column is the percentage out of total sample.

Cohort	Number of individuals	Percentage of total
1980	116	0.80
1981	113	0.78
1982	145	1.00
1983	167	1.15
1984	180	1.24
1985	200	1.37
1986	241	1.65
1987	266	1.83
1988	307	2.11
1989	334	2.29
1990	384	2.64
1991	413	2.83
1992	437	3.00
1993	481	3.30
1994	490	3.36
1995	537	3.69
1996	602	4.13
1997	602	4.13
1998	605	4.15
1999	674	4.63
2000	681	4.67
2001	677	4.65
2002	560	3.84
2003	614	4.21
2004	679	4.66
2005	563	3.86
2006	528	3.62
2007	461	3.16
2008	410	2.81
2009	393	2.70
2010	350	2.40
2011	306	2.10
2012	255	1.75
2013	201	1.38
2014	153	1.05
2015	115	0.79
2016	104	0.71
2017	66	0.45
2018	64	0.44
2019	50	0.34
2020	44	0.30

Table A2: **Number of individuals by cohort**: This table illustrates the number of individuals in the sample by cohorts (MBA graduation years). The first column is the mba cohort. The second column is the number of individuals of each cohort. The third column is the percentage out of total number of individuals.

Role	Percentage
Vice President	31.47
Other Director	16.58
Manager	14.19
Manage Director	8.86
Other c-suite executives	8.29
Head	4.58
Analyst	4.54
President	3.35
CEO	2.12
Executive Director	2.00
Associate	1.78
Engineer	1.69
Partner	1.67
Treasurer	1.26
Controller	1.18
Principal	0.98
Consultant	0.85
Chairman	0.67
Advisor	0.46
Unit/Regional President	0.29
Vice Chairman	0.19
Unit/Regional CEO	0.15
Auditor	0.09
Accountant	0.03
Others (unclassified)	8.78

Table A3: **Distribution of Job Titles**: This table reports the proportion of job titles in the main sample. The titles are identified based on key words searching in self-disclosed job titles. The first column displays the title and the second column displays the percentage in the sample. Note that the job titles are not mutually exclusive so the proportions do not sum to 1.

Environmental	Social	Governance
Animal mistreatment	Child labor	Anti-competitive practices
Climate change, GHG emissions, and global pollution	Controversial products and services	Corruption, bribery, extortion and money laundering
Impacts on landscapes, ecosystems and biodiversity	Discrimination in employment	Executive compensation issues
Local pollution	Forced labor	Fraud
Other environmental issues	Freedom of association and collective bargaining	Misleading communication
Overuse and wasting of resources	Human rights abuses and corporate complicity	Other issues
Waste issues	Impacts on communities	Tax evasion
	Local participation issues	Tax optimization
	Occupational health and safety issues	
	Other social issues	
	Poor employment conditions	
	Products (health and environmental issues)	
	Social discrimination	
	Supply chain issues	
	Violation of international standards	
	Violation of national legislation	

Table A4: **RepRisk issues and categories**: This table reports the issues that RepRisk retains and their corresponding categories. One RepRisk incident could be associated with multiple issues.

	ESG Performance					
	(1)	(2)	(3)	(4)	(5)	(6)
Post-MBA × ESG Course	0.796**	0.527**	0.730**	0.511**	0.737**	0.541**
	(2.661)	(2.619)	(2.243)	(2.481)	(2.277)	(2.648)
log(size)	0.636***	0.685***	0.689***	0.699***	0.694***	0.707***
	(30.625)	(32.187)	(33.107)	(32.058)	(32.769)	(32.278)
ROA	0.503***	0.494***	0.284***	0.417***	0.276***	0.414***
	(4.723)	(6.726)	(3.623)	(6.193)	(3.625)	(6.293)
Debt/Asset			-1.287***	-0.447***	-1.273***	-0.436***
			(-10.911)	(-4.647)	(-10.745)	(-4.391)
CapEx/Asset					1.559***	4.462***
					(2.768)	(7.360)
Individual FE	✓	✓	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓
Industry × Year FE		✓		✓		✓
Observations	90,569	90,569	90,569	90,569	90,341	90,341
R^2	0.68	0.75	0.69	0.75	0.69	0.76

Table A5: **Employers' ESG performance before/after MBA with ESG courses - more controls**: This table reports results for regressions investigating how the employers' ESG performance changes before and after ESG courses in the MBA programs, with more control variables. The dependent variable is the employers' ESG scores. The $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. All the regressions include individual fixed effects, $Post\text{-}MBA$ interacted with schools interacted with years fixed effects, and $Post\text{-}MBA$ interacted with cohorts interacted with years fixed effects. Industry is defined based at GICS2 level. $log(size)$ is defined as the natural logarithm of total assets. ROA is the return on asset of firms. $Debt/Asset$ is the debt-to-asset ratio. $CapEx/Asset$ is the capital expenditure to asset ratio. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance				
	(1)	(2)	(3)	(4)	(5)
Post-MBA × ESG Course	1.175***	1.107***	1.081***	0.931***	0.829**
	(5.491)	(4.430)	(4.253)	(3.252)	(2.111)
log(size)	0.656***	0.658***	0.658***	0.668***	0.667***
	(26.132)	(27.805)	(27.855)	(29.271)	(29.420)
Role Controls		✓			
Post-MBA × Role Controls			✓		
Post-MBA × School × Role Controls				✓	✓
Post-MBA × Cohort × Role Controls					✓
Individual FE	✓	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓	✓
Observations	82,326	82,326	82,326	82,255	82,205
R^2	0.70	0.70	0.70	0.71	0.73

Table A6: **Employers' ESG performance before/after MBA with ESG courses, with job title controls:** This table reports results for regressions investigating how the employers' ESG performance changes before and after MBA study with mandatory ESG courses and control for job titles. The dependent variable is the employers' ESG scores. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $log(size)$ is defined as the natural logarithm of total assets. In this table I drop the observations in which job titles are not classified. *Role* are job titles listed in Table A3. Column (1) is the same specification as in the baseline. Column (2) include the dummies indicating job titles. Column (3) includes the all the dummies interacting $Post\text{-}MBA$ and job titles. Column (4) includes all the dummies interacting $Post\text{-}MBA$, schools and job titles. Column (5) includes all the dummies interacting $Post\text{-}MBA$, schools and job titles as well as the dummies interacting $Post\text{-}MBA$, cohorts and job titles. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance					
	(1)	(2)	(3)	(4)	(5)	(6)
Post-MBA × ESG Course	1.161**	1.095**	1.327***	1.123***	1.378***	0.492**
	(2.388)	(2.421)	(3.222)	(3.028)	(3.248)	(2.158)
log(size)		0.641***	0.648***	0.639***	0.647***	0.693***
		(42.297)	(42.710)	(42.082)	(42.484)	(73.154)
Individual FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓				
Cohort × Post-MBA FE	✓	✓	✓			
School × Post-MBA FE	✓	✓		✓		
Cohort × Post-MBA × Year FE				✓	✓	✓
School × Post-MBA × Year FE			✓		✓	✓
Industry × Year FE						✓
Observations	90,571	90,571	90,571	90,571	90,571	90,571

Table A7: **Employers' ESG performance before/after MBA with ESG courses, with alternative diff-in-diff estimator:** This table reports results for regressions investigating how the employers' ESG performance changes before and after MBA study with mandatory ESG courses. The coefficients are estimated using the estimator by Borusyak et al. (2021). The dependent variable is the employers' ESG scores. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors clustered by individual. * p<.10; ** p<.05; *** p<.01.

School Excluded	Coef.	t-stat	p-value
Babson	0.820	2.728	0.010
Bocconi	0.801	2.639	0.012
BostonU	0.912	3.014	0.005
CMU	0.758	2.486	0.018
Chicago	1.180	4.760	0.000
Columbia	0.855	3.208	0.003
Cornell	0.820	2.743	0.010
Dartmouth	0.718	2.170	0.037
Duke	0.715	2.381	0.023
ESADE	0.809	2.705	0.011
Emory	0.809	2.612	0.013
HEC	0.810	2.729	0.010
HKU	0.810	2.707	0.010
HKUST	0.810	2.711	0.010
Harvard	0.848	2.680	0.011
INSEAD	0.791	2.677	0.011
IndianSB	0.810	2.707	0.010
IndianaU	0.809	2.706	0.011
MIT	0.818	2.594	0.014
Manchester	0.810	2.702	0.011
Michigan	0.776	2.660	0.012
NUS	0.809	2.703	0.011
NYU	0.800	2.410	0.021
Northwestern	0.814	2.898	0.007
Oxford	0.832	2.761	0.009
Queens	0.856	2.784	0.009
SMU Cox	0.798	2.680	0.011
Stanford	0.710	2.429	0.021
UCLA	0.816	2.806	0.008
USC	0.793	2.598	0.014
Vanderbilt	0.849	2.816	0.008
WUSTL	0.816	2.710	0.010
Warwick	0.806	2.681	0.011
Washington	0.792	2.206	0.034
Western	0.798	2.775	0.009
Wharton	0.687	2.085	0.045
Yale	0.776	2.391	0.022
York	0.814	2.687	0.011

Table A8: **Baseline regression results, exlucding one school at a time**: This table reports the baseline regresssion results, excluding one school each time. Each row, it reports the coefficient β from the following regression excluding the school in the first column. t-statistics and p-value are based on the standard errors clustered by school and by cohort. Specifically, they are coefficients β from the following regression:

$$\begin{aligned} ESG\ Perf_{i,t} =& \beta\, \mathbf{1}\{PostMBA_{i,t}\} \times \mathbf{1}\{Taken\ ESG\ Course_i\} \\ &+ PostMBA_{i,t} \times School \times Year\ FE \\ &+ PostMBA_{i,t} \times Cohort \times Year\ FE \\ &+ log(size)_{i,t} + \alpha_i + \epsilon_{i,t} \end{aligned} \tag{21}$$

	By Individual	By Firm	By Individual and Firm	By Industry × Year
	(1)	(2)	(3)	(4)
Post-MBA × ESG Course	0.810**	0.810**	0.810**	0.810***
	(2.207)	(2.102)	(2.146)	(2.768)
log(size)	0.641***	0.641***	0.641***	0.641***
	(42.090)	(12.866)	(12.676)	(20.696)
Individual FE	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓
Observations	90,571	90,571	90,571	90,571
R^2	0.68	0.68	0.68	0.68

Table A9: **Employers' ESG performance before/after ESG courses - alternative standard error clustering**: This table reports results for regressions investigating how the employers' ESG performance changes before and after ESG courses in the MBA programs, with different error clustering. In columns (1)-(4), the standard errors are clustered by individual, by firm, by individual and firm, and by industry × year respectively. The dependent variable is the employers' ESG scores. The $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $log(size)$ is defined as the natural logarithm of total assets. All the regressions include individual fixed effect. Industry is defined based at GICS Industry Group level. Other fixed effects include the interaction of $Post\text{-}MBA$ and schools, the interaction of $Post\text{-}MBA$ and cohorts. Some specifications include additional interactions with years fixed effects. In the parentheses are the t-statistics. * p<.10; ** p<.05; *** p<.01.

	Environment	Community	Employee Relations	Diversity	Human Rights	Product
	(1)	(2)	(3)	(4)	(5)	(6)
Post-MBA × ESG Course	0.347***	-0.045	0.333***	0.078	-0.052	0.149***
	(6.041)	(-0.312)	(7.382)	(0.396)	(-1.183)	(2.907)
log(size)	0.140***	0.152***	0.232***	0.379***	-0.051***	-0.211***
	(22.833)	(31.195)	(39.163)	(38.894)	(-20.230)	(-31.701)
Individual FE	✓	✓	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓	✓	✓
Observations	90,571	90,571	90,571	90,571	90,571	90,571
R^2	0.66	0.65	0.64	0.72	0.59	0.71

Table A10: **Employers' ESG performance in subcategories before/after ESG courses**: This table reports results for regressions investigating how the employers' ESG performance changes before and after ESG courses in the MBA programs. The dependent variables are the subcategories of employers' ESG scores. The $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. $log(size)$ is defined as the natural logarithm of total assets. All the regressions include individual fixed effect. Industry is defined based at GICS Industry Group level. Other fixed effects include the interaction of $Post\text{-}MBA$ and schools, the interaction of $Post\text{-}MBA$ and cohorts. Some specifications include additional interactions with years fixed effects. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	Environmental News		Social News		Governance News	
	(1)	(2)	(3)	(4)	(5)	(6)
ESG Course	-0.089***	-0.066**	-0.111**	-0.080**	-0.048	-0.056*
	(-3.073)	(-2.478)	(-2.271)	(-2.084)	(-1.132)	(-1.851)
log(size)	0.268***	0.267***	0.433***	0.466***	0.371***	0.381***
	(35.507)	(39.102)	(58.682)	(55.372)	(39.454)	(39.546)
Cohort × Year FE	✓	✓	✓	✓	✓	✓
School × Year FE	✓	✓	✓	✓	✓	✓
Industry × Year FE		✓		✓		✓
Observations	49,954	49,954	49,954	49,954	49,954	49,954
R^2	0.45	0.56	0.56	0.65	0.56	0.64

Table A11: **Employers' negative ESG news for employees with/without ESG courses, Post-MBA study**: This table reports results for regressions investigating whether after MBA, graduates who have taken ESG courses during MBA work for firms with negative E, S or G news. The regressions only include the Post-MBA submaple. In Columns (1) and (2), the dependent variable is the natural logarithm of 1 + number of negative environmental news recorded by RepRisk. In Columns (3) and (4), the dependent variable is the natural logarithm of 1 + number of negative social news recorded by RepRisk. In Columns (5) and (6), the dependent variable is the natural logarithm of 1 + number of negative governance news recorded by RepRisk. $ESG\,Course$ is a dummy which equals to one if the MBA program that the individual attends has a mandatory ESG course. Fixed effects include school/cohort interacted with years fixed effects. columns (2), (4) and (6) also contain Industry interacted with years fixed effects. Industry is defined at GICS Inudstry Group level. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance			
	(1)	(2)	(3)	(4)
Post-MBA × ESG Course	0.766**	0.872***	0.941***	0.799***
	(2.196)	(3.207)	(2.899)	(3.017)
Post-MBA × ESG Course × Foreign Firms	0.131			
	(0.157)			
Post-MBA × ESG Course × Adjacent State Firms		-0.009		
		(-0.018)		
Post-MBA × ESG Course × Same State Firms			-0.981	
			(-1.528)	
Post-MBA × ESG Course × Small Firms				-0.313
				(-0.562)
log(size)	0.640***	0.646***	0.642***	0.626***
	(31.129)	(34.463)	(30.992)	(22.926)
Lower Interactions	✓	✓	✓	✓
Individual FE	✓	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓	✓
Observations	90,571	90,571	90,571	90,571
R^2	0.68	0.68	0.68	0.68

Table A12: **Employers' ESG performance after ESG education, interacted with firm characteristics**: This table reports the results for regressions investigating how the employers' ESG performance changes before/after ESG courses, interacted with firm locations and size. The dependent variable is the employers' ESG scores. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. In Column (1), $Foreign\,Firms$) is a dummy variable indicating the headquarter of the firm locates in a different country as the MBA school that the individual attends. In Column (2), $Adjacent\,State\,Firms$ is dummy indicating whether the firm locates in the same or adjacent state as the MBA school that the individual attends. In Column (3), $Same\,State$ is dummy indicating whether the firm locates in the same state as the MBA school that the individual attends. Firms in different countries are considered as different and non-adjacent state firms. In Column (4), $Small\,firms$ is a dummy indicating whether the size of the firm is below the median of all firms in the same year. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance		
	(1)	(2)	(3)
Post-MBA × ESG Course	0.966*** (3.223)	0.822** (2.211)	0.651** (2.428)
Post-MBA × ESG Course × Cohorts>2008	-0.374 (-1.442)		
Post-MBA × ESG Course × MBA school close to home		-0.079 (-0.162)	
Post-MBA × ESG Course × MBA school same as bachelor			1.881* (1.871)
log(size)	0.641*** (31.052)	0.642*** (31.428)	0.641*** (31.180)
Lower Interactions	✓	✓	✓
Individual FE	✓	✓	✓
Cohort × Post-MBA × Year FE	✓	✓	✓
School × Post-MBA × Year FE	✓	✓	✓
Observations	90,571	90,571	90,571
R^2	0.68	0.68	0.68

Table A13: **Employers' ESG performance after ESG education, interacted with student characteristics**: This table reports the results for regressions investigating how the employers' ESG performance changes before/after ESG courses, interacted with students' characteristics. $Post\text{-}MBA \times ESG\,Course$ is a dummy equals to one if in the year of employment the individual has already finished MBA and there is a mandatory ESG course in the MBA program. In column (1), $Cohort > 2008$ is a dummy variable indicating the MBA graduation year is later than 2008. In column (2), $MBA\,school\,close\,to\,home$ is a dummy variable indicating the school is less than 300 kilometres away from the headquarter of previous employer. In column (3), $MBAschool\,same\,as\,bachelor$ is a dummy variable indicating the MBA school is the same as student's bachelor school. $log(size)$ is defined as the natural logarithm of total assets. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

	ESG Performance		Dummy(Causes care about)
	(1)	(2)	(3)
Dummy(Causes care about)	0.465*** (5.861)	0.530*** (6.999)	
log(size)		0.492*** (27.151)	
MBA Graduation Year			0.001** (2.414)
Year FE	✓	✓	
Observations	90,571	90,571	14,203
R^2	0.05	0.16	0.00

Table A14: **Validation tests of stating "Causes one cares about"**: This table reports the results of the validation tests of the stating "Causes one cares about" on LinkedIn. In Columns (1) and (2), the dependent variable is the employers' ESG scores. $Dummy(Causes\,care\,about)$ is a dummy variable indicating whether the individuals' LinkedIn profile has the section "Causes one cares about". In Column (3), each individual has one observation. The independent variables is MBA graduation year. In the parentheses are the t-statistics with standard errors double clustered by school and by cohort. * p<.10; ** p<.05; *** p<.01.

Variable	Definition
ESG Performance	ESG score constructed from MSCI KLD Stat Database.+1 for each ESG "strength" and -1 for each ESG "concern" for environment, community, diversity, employee relations, human rights and product category. ESG score is computed by summing up across the six categories.
Post-MBA	Dummy variable indicating that in year t individual i has already finished her MBA study.
ESG Course	Dummy variable indicating that there is a mandatory ESG course in the MBA program that individual i attends.
Size	Total asset (Compustat item at) in billion USD.
Debt/Asset	Total liability (Compustat item lt) divided by total asset (Compustat item at)
ROA	Net income (Compustat item ni) divided by total asset (Compustat item at)
CapEx/Asset	Capital Expenditure (Compustat item $capx$) divided by total asset (Compustat item at)
Domestic Firm	Dummy variable indicating the headquarter of firm is located in the same country as the MBA school individual i attends.
Same State Firm	Dummy variable indicating that: (1) For US firms and schools, headquarter of firm is located in the same state as the MBA school individual i attends; or (2) For non-US firm or schools, headquarter of firm is located in the same country as the MBA school individual i
Adjacent State Firm	Dummy variable indicating that: (1) For US firms and schools, headquarter of firm is located in the same or adjacent state as the MBA school individual i attend, or (2) for non-US firm or schools, headquarter of firm is located in the same country as the MBA school individual i
Industry Sustainability Score	Industry (GICS Industry Group) level sustainability score, mapped from Swedish industry classification level sustainability score based on the survey by Krueger et al. (2022).
Sin Indutry	Dummy variable indicating that the firm is in tobacco, alcohol, or gaming industries, (1) SIC Code 2081-2085 and 2100-2199, or (2) Capital IQ subsector ID 5111-5112, 5130-5139, 4211, or (3) Capital IQ primary industry named "Casinos and Gaming" and "Tobacco".
Carbon Intensity	Carbon Emissions (Scope 1 and 2) divided by Total Revenue, from Refinitiv Eikon.
Num E&S news	Number of negative environmental and social incidents reported by RepRisk.
Dummy(Causes care about)	Dummy variable indicating that individual i's LinkedIn's profile has a "causes one cares about" section.
Num. words in self description	Number of words in the LinkedIn self description section.
Dummy(Disclose Volunteer Experience)	Dummy variable indicating that individual i's LinkedIn's profile has a "volunteer experience" section.
Num. words in job description	Number of words in the LinkedIn job description sections, averaged across all job experience.
Num. words in education description	Number of words in the LinkedIn education description sections, averaged across all education experience.
Dummy(bachelor school same as MBA)	Dummy variable indicating that individual i obtained bachelor degree from the same university as the university she obtained MBA degree.
Dummy(MBA school close to home)	Dummy variable indicating that individual i attends an MBA program which is located within 300km to the headquarter of their last employer before MBA.
Wage Growth	Percentage increase comparing pre-MBA salary to 3 years after completing MBA. Survey based data from the Financial Times (variable $salary\,increase$)
Salary	Salary in USD (PPP adjusted) 3 years after completing MBA. Survey based data from the Financial Times (variable $Salary\,Today$)

Table A15: **Variable Definitions**: This table shows the detailed definitions of variables used in the analysis.

B Theoretical Framework

In this section, I present a simple theoretical framework to guide the empirical analysis. It is a highly stylized partial equilibrium model with simplified assumptions. The key element of the model is that ESG-aware workers derive additional utility (disutility) from working in a firm with high (low) level of ESG performance.

This element in workers' utility function affects what job offers workers accept. In equilibrium, workers with higher ESG awareness tend to work for firms with better ESG performance. They also earn lower average wages, which are compensated by the additional utility derived from working in firms with better ESG performance.

B.1 Model Setup

First consider a one-period economy where there are firms with exogenous levels of ESG performance and with exogenous wage offers. Workers are at different levels of ESG awareness. Each worker randomly draws a job offer from the pool of firms, and decide whether to work for the firm. I describe the model in detail below.

B.1.1 Firms and wage offers

There is a continuum of firms indexed by their level of ESG performance $\eta \in (-\infty, \infty)$. A negative η can be intepreted as negative social impact (e.g. pollution) and a positive η can be intepreted as positive social impact (e.g. poverty alleviation). Each firm has an exogenous wage offer[22] $w \in (-\infty, \infty)$. Firms' ESG performance and wage offer (η, w) follow a joint distribution with density function $g(w, \eta)$, which is positive everywhere and integrable with respect to both w and η.

B.1.2 Workers

There is a continuum of workers indexed by their level of ESG awareness $\theta \in (0, \infty)$. Each worker randomly draws a job offer from the pool of firms. If the worker accepts the offer (w, η), she derives utility

$$u = w + \theta\eta$$

[22] I assume wage can be negative to avoid discussing the boundary conditions. This assumption does not affect the intuition of the model.

where w denotes the wage and $\theta\eta$ denotes the addional utility derived from firms' ESG performance. The magnitude of the additional utility or disutility increases with the level of ESG awareness θ.

With probability p, the worker has an exogenous outside option with wage w_0. This exogenous outside option has a ESG performance level 0. If the worker has an outside option, she accepts the wage offer only if $w + \theta\eta > w_0$. With probability $1 - p$, the worker does not have an outside option. In this case she accepts whatever job offer she draws.

B.2 Results

B.2.1 Matching between workers and firms

If the worker does not have an outside option (with prob. $1 - p$), she works for any firm she draws. If the worker has an outside option, she works for the firm if $w > w_0 - \theta\eta$, or chooses the outside option if $w \leq w_0 - \theta\eta$.Denoting the expected ESG performance of the firm that worker θ works at is $M(\theta)$, I have

$$M(\theta) = (1-p) \iint \eta g(w,\eta)\, dwd\eta + p \iint (\eta \mathbb{1}_{w>w_0-\theta\eta} + 0\mathbb{1}_{w\leq w_0-\theta\eta}) g(w,\eta)\, dwd\eta$$

It can be shown that $M(\theta)$ increases in θ (detailed proof in Appendix B.5.1). This result leads to Proposition 1.

Proposition 1. *Workers with higher ESG awareness tend to work at firms with higher ESG performance, i.e.,* $\frac{\partial M}{\partial \theta} > 0$

The intuition for Proposition 1 is that workers with higher levels of ESG awareness are less likely to accept a offer from firms with lower ESG performance. This is illustrated in Figure A7. A higher level of ESG awareness corresponds to a steeper line, above which workers work for the firm. As a result, workers with higher ESG-awareness work for firms with higher ESG performance (more mass to the right of x-axis).

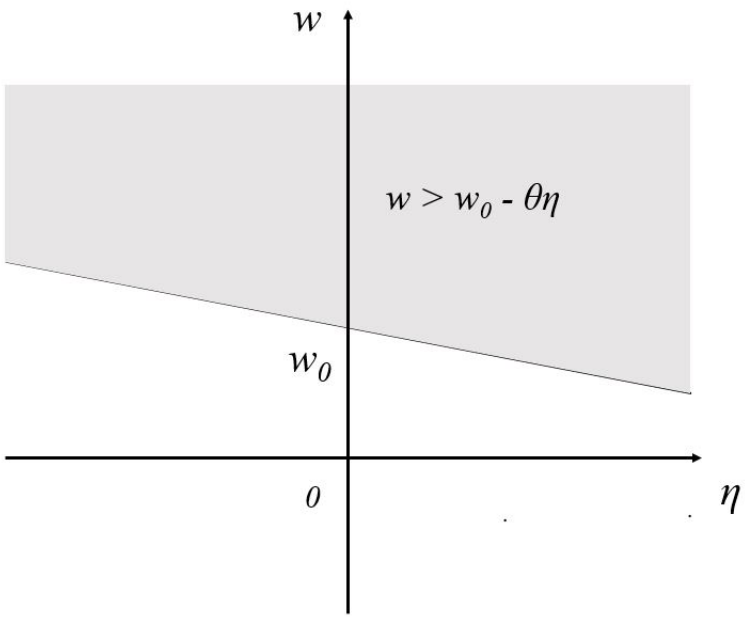

Figure A7: **Regions where workers accept job offers**: This figure illustrates the region in which workers with ESG awareness level θ (when she has an outside option w_0) accept job offers. On the horizontal axis is the firms' ESG performance. On the vertical axis is the wage offers of the firms. For a given worker θ, she only accepts the job offers in the grey area, corresponding to $w > w_0 - \theta\eta$. The slope of the threshold line is $-\theta$.

B.2.2 Average wages

If the worker does not have an outside option (with prob. $1-p$), she accepts any offer she draws and earns the corresponding wage. If the worker has an outside option, she works for the firm and earns w if $w > w_0 - \theta\eta$, or the outside option and earns w_0 if $w \leq w_0 - \theta\eta$. Given a worker with ESG awareness level θ, denote the expected wages she earns is $W(\theta)$, I have

$$W(\theta) = (1-p)\iint wg(w,\eta)\,dwd\eta + p\iint (w\mathbb{1}_{w>w_0-\theta\eta} + w_0\mathbb{1}_{w\leq w_0-\theta\eta})g(w,\eta)\,dwd\eta$$

It can be shown that $W(\theta)$ decreases in θ (detailed proof in Appendix B.5.2). This result leads to Proposition 2.

Proposition 2. *Workers with higher ESG awareness earn lower wages, i.e.,* $\frac{\partial W}{\partial \theta} < 0$

The intuition for Proposition 2 is that workers with higher levels of ESG awareness would give up some high-wage jobs in firms with lower ESG performance, and choose some low-wage jobs in firms with high ESG performance. As illustrated in Figure A7. A higher level of ESG awareness corresponds to a steeper line, above which workers work for the firm. As a result,

workers with higher ESG-awareness accept jobs with lower wages (more mass to the bottom of y-axis).

B.3 Job turnover

Consider now a two-period model, in which the first period is exactly the same as the static model. In the second period, the workers who choose to work at firms redraw the outside option. Again, the worker gets an outside option w_0 with probability p, and she gets no outside option with probability $1-p$. Then she choose (if she has an outside option) either (1) to stay at the firm (with same level of w and η), or (2) to leave for the outside option.

Note that in the two-period model, the results in a static model hold for the first period. That is, in the first period, the worker accepts the job offer when $w > w_0 - \theta\eta$ if she has the outside option. She accepts any offer if she does not have any outside option. In this section, I focus on the prediction on the likelihood of leaving the firm in the second period and how level of ESG awareness affects the likelihood of leaving.

In the second period, the workers will not leave the firm if they have the outside option in the first period ($w \geq w_0 - \theta\eta$ already holds). Only the workers who do not have an outside option in period 1 may leave the firm in period 2. They will leave the firm if $w \leq w_0 - \theta\eta$. Given firm η, denote the likelihood of worker θ leaving the company in the second period as $l_\eta(\theta)$, we have

$$l_\eta(\theta) = p \int \mathbb{1}_{w \leq w_0 - \theta\eta}\, g(w, \eta) dw$$

It can be shown that $l_\eta(\theta)$ increases in θ if $\eta > 0$ and $l_\eta(\theta)$ decreases in θ if $\eta < 0$ (detailed proof in Appendix B.5.3). This result leads to Proposition 3.

Proposition 3. *For a firm with negative (positive) ESG performance, workers with higher ESG awareness are more (less) likely to leave the firm, i.e.,* $\frac{\partial l_\eta}{\partial \theta} > 0$ *if* $\eta < 0$ *and* $\frac{\partial l_\eta}{\partial \theta} < 0$ *if* $\eta > 0$

The intuition is that, for a given firm with positive ESG performance $\eta > 0$, as this gives higher additional utility to workers with higher ESG awareness. This additional positive utility makes the workers less likely to leave the firm. In contrast, for a given firm with negative ESG performance $\eta < 0$, as this gives higher additional disutility to workers with higher ESG awareness. This additional disutility makes the workers more likely to leave the firm if they find an outside option.

B.4 Empirical Predictions

In this paper, I use exposure to mandatory ESG courses as a shock to ESG awareness level (θ). Specifically, in my empirical setup, I compare a sample of employees with heterogenous ESG awareness (exposed to mandatory ESG courses or not) but that are plausibly similar on other dimensions, which allows me to identify the impact of ESG awareness on labor market outcomes. Based on my theoretical framework, I make the following predictions:

Prediction 1. *After exposure to mandatory ESG courses, employees work for firms with higher ESG performance.*

This prediction follows directly from Proposition 1. Employees with higher levels of ESG awareness derive an additional utility from working in firms with higher ESG performance. As a result, they are more likely to accept job offers and work for firms with higher ESG performance.

Prediction 2. *After exposure to mandatory ESG courses, employees earn lower wages.*

This prediction follows directly from Proposition 2. Employees with higher levels are more likely to turn down higher-wage job offers from firms with lower ESG performance, and accept lower-wage job offers from firms with higher ESG performance. As a result, they earn lower average wages, which are compensated by the additional utility they derive from working at high ESG-performing firms.

Prediction 3. *Employees who are exposed to mandatory ESG courses are more (less) likely to leave a firm with low (high) ESG performance than employees who are not.*

This prediction follows from Proposition 3. As employees with higher ESG awareness derive higher positive utility from working in a high ESG-performing company, they are less sensitive to the existence of the outside option. In contrast, employees with higher ESG awareness derive higher disutility from working in a high ESG-performing company. As a result, they are more sensitive to the existence of the outside option.

B.5 Proofs

B.5.1 Proof of Proposition 1

$$\begin{aligned} M(\theta) =&(1-p)\iint \eta g(w,\eta)\, dwd\eta + p\iint (\eta \mathbb{1}_{w>w_0-\theta\eta} + 0\mathbb{1}_{w\leq w_0-\theta\eta}) g(w,\eta)\, dwd\eta \\ =&(1-p)\iint \eta g(w,\eta)\, dwd\eta + p\int_{-\infty}^{\infty}\int_{w_0-\theta\eta}^{\infty} \eta g(w,\eta)\, dwd\eta \end{aligned}$$

Taking the first order derivatives, it leads to

$$\frac{\partial M}{\partial \theta} = p \int_{-\infty}^{\infty} \eta^2 g(w_0 - \theta\eta, \eta) d\eta > 0$$

B.5.2 Proof of Proposition 2

$$\begin{aligned} W(\theta) =& (1-p) \iint w g(w,\eta)\, dw d\eta + p \iint (w \mathbb{1}_{w > w_0 - \theta\eta} + w_0 \mathbb{1}_{w \leq w_0 - \theta\eta}) g(w,\eta)\, dw d\eta \\ =& (1-p) \iint w g(w,\eta)\, dw d\eta + p \int_{-\infty}^{\infty} \left(\int_{w_0 - \theta\eta}^{\infty} w g(w,\eta) dw + \int_{\infty}^{w_0 - \theta\eta} w_0 g(w,\eta) dw \right) d\eta \end{aligned}$$

Taking the first order derivatives, it leads to

$$\begin{aligned} \frac{\partial W}{\partial \theta} =& p \int_{-\infty}^{\infty} (\eta(w_0 - \theta\eta) g(w_0 - \theta\eta, \eta) - \eta w_0 g(w_0 - \theta\eta, \eta))\, d\eta \\ =& - p\theta \int \eta^2 g(w_0 - \theta\eta, \eta)\, d\eta < 0 \end{aligned}$$

B.5.3 Proof of Proposition 3

$$\begin{aligned} l_\eta(\theta) =& p \int \mathbb{1}_{w \leq w_0 - \theta\eta}\, g(w,\eta) dw \\ =& p \int_{-\infty}^{w_0 - \theta\eta} g(w,\eta) dw \end{aligned}$$

Taking the first order derivatives, it leads to

$$\frac{\partial l_\eta}{\partial \theta} = - \eta g(w_0 - \theta\eta, \eta)$$

If $\eta > 0$, $\frac{\partial l_\eta}{\partial \theta} < 0$ and if $\eta < 0$, $\frac{\partial l_\eta}{\partial \theta} > 0$.