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Speed Is a Signal: When Faster Replies Increase Hiring Likelihood

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Abstract. When determining whom to hire, employers care about how quickly they receive replies from the job seekers and service providers they contact. Across transaction data from a large real-world marketplace ($N = \sim 11.66$ million) and experiments (three main studies (total $n = 3,603$) and five supplemental studies (total $n = 5,039$)), we show that providers benefit from responding to employers' messages quickly. First, we document substantial real-world consequences of reply speed in Fiverr marketplace transaction data (Study 1), finding a strong negative relationship between the length of delay in replying to a service request and the likelihood of securing a contract. Even delays of just 5–10 minutes dramatically reduce providers' likelihood of being hired. In our experimental studies, providers who take less (versus more) time to reply are seen as more likely to be responsive in the future (Studies 2–4), make more positive impressions than slower responders (Study 3), and in turn, are more likely to be hired (Studies 2–4). Fast replies signal a provider's future responsiveness and increase hiring likelihood independently from other signals of future responsiveness, such as a worker's quality (Study 2) or the content of the message sent (Study 4). Together, our studies identify a distinct signal that employees can control to increase their hireability: replying to messages quickly. Empirically, every minute counts.

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Keywords: reply speed • communication strategies • hiring likelihood • responsiveness • impression management

Imagine receiving an email on a Thursday that asks you to interview for a promising job opportunity. You believe that you are well qualified and are excited about the job, but you decide to play it cool and not respond until Monday.

Now, imagine that you are the employer. You email two job candidates on Thursday about a job opportunity. One candidate replies immediately; the other responds on Monday. What does this difference in reply speed signal to you about each person's likely responsiveness to future messages, friendliness, and competence? Who would you hire?

There are at least two schools of thought regarding how quickly one should reply to a message that invites future interactions (e.g., an email from a prospective employer or a message received after a first date). On one hand, a quick reply can encourage the initial message sender by signaling that the responder wants to engage in conversation and is capable of making decisions quickly. On the other hand, a slower reply may align with the lay theory that "playing hard to get" enhances the initial message sender's impressions of

the responder's status and desirability¹ or that the responder put significant effort into their actual reply (Buell and Norton 2011, Inzlicht et al. 2018).

Building on the responsiveness literature (e.g., Reis and Gable 2015, Crasta et al. 2021), we consider the important features that these pre-hiring communications share with other conversations, such as turn-taking expectations and conversational norms. Because the initial message sender is actively waiting on a response, reply speed is a salient and relevant consideration that signals characteristics of the responder. We propose that faster (versus slower) replies tend to signal an individual's future responsiveness (attention to and consideration of future communications and requests), which is a key predictor of perceptions of both warmth and competence and an important influence on downstream evaluations. Importantly, we demonstrate that by replying quickly and simply communicating their availability or willingness to accept a job, workers can dramatically increase their likelihood of being hired relative to those who delay their response by even a few hours.

In the modern workforce, immediate responsiveness appears to be the norm. With internet-enabled devices always at our fingertips and hybrid work arrangements suggesting that work can be (and often is) done from anywhere (e.g., Lund et al. 2021), there may seem to be little excuse for a delayed reply to a direct message. As more and more communication occurs via email and other internet-mediated messaging associated with expectations of immediate responsiveness (Barley et al. 2011, Mazmanian et al. 2013, Brown et al. 2014, Rosen et al. 2019, Cheng et al. 2023), the notion of workers being “always on” is now commonplace. Indeed, when we analyzed real-world marketplace data of millions of online transactions from Fiverr.com (described in detail below and in Study 1), we found that most freelancers responded *very* quickly to messages about job opportunities; both the modal and median reply times to an initial request for freelance digital services were under one minute. That is, most replies to job request messages on the platform were essentially immediate, whereas delays of over 24 hours were almost unheard of—less than 1.3% of total responses.

Prior research suggests that reply speed in general is driven by responder anxiety about missing important communications (Barley et al. 2011, Jerejian et al. 2013, Cheng et al. 2023) and that job seekers may feel that an immediate reply is necessary to signal interest (Feldman et al. 2020, Giurge and Bohns 2021). Recent work argues that some of these “always on” expectations reflect a biased belief among responders that their communication partners expect more frequent checking of emails and faster replies than those partners actually do. In a series of studies of nonurgent emails sent both outside and within standard work hours, senders consistently held more generous expectations (i.e., expected longer delays) than responders regarding when a reply should be received (Giurge and Bohns 2021). Believing that reply speed serves as a self-presentation signal (Whillans et al. 2022), responders who choose to reply immediately may do so to avoid appearing incompetent. Although we investigate the effect of reply speed in conversational turn taking (e.g., email communication), prior work has shown that workers perceive that task completion speed is also essential for job success. For example, Whillans et al. (2021) show that most people (and particularly women) do not request deadline extensions, even when such adjustments would be relatively costless, for fear of being penalized.

In this paper, focusing specifically on communication at the beginning of a potential working relationship, we propose and empirically show that hiring employers in fact do notice service providers’ reply speed, which affects impressions of the providers and the likelihood of hiring them. Across large-scale data

from an online marketplace and preregistered experimental studies, we demonstrate that, on average, senders prioritize providers who give faster (versus slower) replies and are more likely to hire them. We also identify an important corollary to this phenomenon: fast replies typically signal the provider’s future responsiveness and thus create positive impressions of the provider’s character traits even as other signals of future responsiveness, such as a worker’s quality (e.g., star rating) or the content of the message sent, also powerfully signal one’s employability. Because speed is a different kind of signal about future responsiveness, the benefits of reply speed should be largely independent from the benefits of reputation or message content. Put differently, although the content of messages and existing reputation are important signals of both future responsiveness and employee desirability, we show another distinct signal that employees can control to increase their hireability: replying to messages quickly.

Theoretical Background

The Hiring Context and the Importance of First Impressions

Organizations concerned about the stress created by an “always on” dynamic on employees might decide to implement boundaries on expectations of immediate replies. But many sectors of work, such as freelance or gig work (also known as “contingent work”) (Connelly and Gallagher 2004), rely on first impressions and are composed of one-off relationships. Various factors have been shown to influence interactions in these settings, such as the race and gender of both the provider and the employer (Edelman et al. 2017, Hannák et al. 2017, Rosenblat et al. 2017, Zhang et al. 2026). However, less is known about one of the few pieces of information that the worker has immediate control over and that is inherently part of any prehiring communications: the speed of workers’ replies to direct communication.

Contrary to other elements that may inform first impressions online, such as a profile picture or self-written descriptions of one’s knowledge and skills (Carr et al. 2017), the speed of one’s reply can provide a more immediate and less easy to fake (or less obviously worker-curated) signal of desirable work-related attributes. Moreover, implicit expectations of speed likely play an outsized role in first impressions, given that explicit signals of quality (e.g., star ratings; see Study 1) are often quite similar across workers (Schoenmueller et al. 2020). These first impressions matter across a variety of organizational contexts (Black and Vance 2021, Swider et al. 2022), including in online markets (Agnew et al. 2018). This suggests that reply speed may be a particularly important consideration when a job is on the line.

Reply Speed and Impressions for Hiring

To form impressions about others, people observe their behaviors and use these observations to make attributions about their dispositions, attitudes, and intentions. In particular, impressions are guided by people's communication behaviors (Berman et al. 2015, Huang et al. 2017, Sezer et al. 2018, Jeong et al. 2019, Roberts et al. 2021, Berman and Silver 2022, VanEpps et al. 2024). Here, we suggest that individuals' reply speed, an important yet understudied feature of communication, will affect the impressions that they make on others.

We propose that reply speed typically provides a signal of a responder's future responsiveness at work (e.g., to communications and requests), which signals a host of other useful attributes in a worker, ranging from their organizational abilities and professionalism (competence) to their friendliness and consideration of others (warmth). Although prior research finds that many communication features and strategies that aim to boost impressions along one dimension (e.g., competence or warmth) harm the other dimension (e.g., Berman et al. 2015, Scopelliti et al. 2015, Chaudhry and Loewenstein 2019, Zhao and Epley 2021), impressions of warmth and competence can be positively correlated. In line with recent work (e.g., VanEpps et al. 2024, Pai et al. 2025), we propose that reply speed can improve impressions of both warmth and competence. Such impressions, in turn, can have downstream consequences for hiring decisions, willingness to interact further, and other economic outcomes (Scopelliti et al. 2015, Bolino et al. 2016, Huang et al. 2017, Sezer et al. 2018, Jeong et al. 2019, Black and Vance 2021, Silver et al. 2021). Specifically, we propose that by enhancing impressions, reply speed boosts hiring likelihood.

In developing this thesis about communication speed, we build on prior work showing that people use decision speed to form attributions of others' mental states and character (Morewedge et al. 2007). For example, when people make "good" (e.g., ethical, helpful) decisions quickly, they are perceived as more moral and more considerate than people who make the same decisions more slowly (Critcher et al. 2013). Quicker (versus slower) decisions often serve as a signal of higher sincerity and truthfulness (Jordan et al. 2016, Van de Calseyde et al. 2021, Ziano and Wang 2021) as well as lower nervousness and passivity (Wang and Ziano 2022). Quicker decisions also suggest less doubt in the decision maker's mind, with positive downstream effects on whether others choose to collaborate with the decision maker (Van de Calseyde et al. 2014). For instance, consumers have more positive impressions of and are more likely to purchase from firms that react more quickly to socio-political events (Nam et al. 2023), and employees choose job offers that are extended more quickly after an interview (Becker et al. 2010). Prior work also shows that the speed at which employees complete their tasks often

reflects (or is assumed to reflect) their workplace abilities and performance (Keinan et al. 2019). Employees who use their time efficiently are perceived as more competent and capable, which often leads to higher status (Keinan et al. 2019, Giurge et al. 2020). Interestingly, even citing excuses related to lack of time, compared with excuses involving lack of money, can reduce trust, closeness, and likelihood of being helped (Donnelly et al. 2021). More closely related to our context, workers can also signal commitment by responding to requests immediately (Feldman et al. 2020). Doing so may be especially helpful in creating a positive first impression, as it can signal workers' future responsiveness to employer requests and needs.

Further support for the idea that fast replies would improve impressions and subsequent relationships comes from research on interpersonal conversations. This work proposes that conversation partners' reply times (in a synchronous conversation) provide an indicator of how well they are listening (Templeton and Wheatley 2023), that quick replies are often taken as a sign of social connection (Templeton et al. 2022), and that faster verbal responses make the speaker seem more competent (Cascio Rizzo and Ziano 2025). This may be because quicker replies can signal that the communicator is more extraverted and less passive (Wang and Ziano 2022) and that they are generally more willing to respond and help (Roberts et al. 2011, Roberts and Francis 2013). In the next section, we build on this work to propose that perceptions of future responsiveness underlie the benefits of reply speed for impressions and hiring likelihood.

Signaling Future Responsiveness

Taken together, the research reviewed in the previous section may suggest that quicker (versus slower) replies would always be beneficial for job seekers. Although this is certainly true in many cases, we propose that reply speed primarily helps individuals to create positive expectations of their future responsiveness on the job (e.g., how well they would listen) and that hiring organizations and message senders value such signals because they indicate warmth and competence. Such positive signals conveyed by speed could be lessened in the context of other responsiveness cues (e.g., if one only cares about the content of a message, regardless of when it is received), but we propose that reply speed should consistently confer an advantage to otherwise impressive responders. By contrast, when a reply suggests that the counterpart is not actually responsive—for instance, because it suggests the provider did not attend to the sender's actual message or would not respond appropriately in the future—speed itself would not necessarily enhance hiring likelihood, because employers would rely on the inadequate

message content to judge the responder as relatively incompetent and uncaring.

Responsiveness is a construct that describes how a relationship partner cares about, understands, validates, and supports the other party's needs and goals (Reis et al. 2004, Algoe 2012, Reis and Gable 2015, Crasta et al. 2021). People closely attend to cues that their conversation counterparts are, in fact, responsive and will continue to be, and perceptions of another party's responsiveness predict gratitude toward that counterpart (Algoe et al. 2008). Indeed, to the extent that responsiveness generates gratitude, relationship closeness, and reciprocity, the Blau (1964) theory of social exchange would predict a positive cycle of reinforced norms, relational stability, and—in the present context—a desire to work together. To identify such cues of responsiveness, people examine their counterparts' verbal and nonverbal behaviors for signals of interest, attention, and understanding (e.g., Bodie et al. 2013, Flynn et al. 2023). Perceiving one's conversation counterpart as truly listening and responsive is key to relationship quality and social connection (e.g., Itzhakov and Reis 2023, Itzhakov et al. 2024), as it suggests a strong relationship between perceptions of responsiveness and perceptions of warmth.

So, how do employers form expectations about job seekers' future responsiveness? Past research regarding communication in gig economy hiring suggests that buyers prefer to hire those who mimic their own level of communication detail and emotional intensity, especially when the buyers include a moderate degree of detail in their initial request (Ludwig et al. 2022). For instance, responses that fail to provide any personal or task information reduce a worker's likelihood of being hired (Ludwig et al. 2022). Even when a conversation is relatively brief and task focused, conversation partners are likely to look for—and make hiring decisions based on—signals of future responsiveness (such as personalization and level of detail) that show unique attention to the specific conversation at hand. Expressions of gratitude or emotionality may help convey warmth and increase relationship closeness. But, because responsiveness is inherently concerned with timeliness, reply speed stands as a key pathway to signal future responsiveness.

Notably, in some cases, being truly responsive might require taking (slightly) more time to reply (Templeton and Wheatley 2023). For example, people who receive very fast replies to a complex topic might infer that their counterpart did not appropriately listen or reflect on the topic. In such an instance, the benefits of reply speed could attenuate (Cascio Rizzo and Ziano 2025), or fast replies could even send a negative signal about future responsiveness because the existing communication suggests that future interactions will not be constructive (e.g., "They respond quickly but without any thought or consideration"). By contrast, if the content

of the reply is acceptably responsive, reply speed should generally improve perceptions of future responsiveness (e.g., "They can consider requests quickly and respond appropriately").

In sum, we suggest that expectations of future responsiveness, which should be predicted by both the reply speed and the content of a reply, matter for impressions and hiring likelihood. Research on employers' evaluations of employees' early versus late work provides support for this idea. Using a task where a slower response (via a deadline extension) could improve objective performance, Whillans et al. (2022) show that managers' evaluations did not depend on speed when the content differed enough. Managers did not penalize employees who requested (versus did not request) extensions, ostensibly because the delay was offset by improved content quality. By contrast, in contexts in which performance was held constant, Fang and Maglio (2024) show that employees who submitted work after the deadline were evaluated more negatively than employees who submitted on time or early. We examine the signaling value of reply speed for future responsiveness in the presence of other relevant cues, such as reputational signals and the content of the reply itself.

Overview of Studies

We first explore how reply speed affects providers' likelihood of being hired using transaction data from Fiverr.com. In Study 1, we analyzed more than 11.66 million message exchanges between buyers (senders who request a digital service, such as copyediting or website design) and sellers (responders who provide such freelance digital services and are paid for their efforts). We find a strong relationship between reply speed and the likelihood of securing a contract, such that each additional minute of delay significantly reduces a responder's likelihood of being hired.

Next, in three experimental studies, we investigate how reply speed influences responders' hiring likelihood and expectations of future responsiveness. In Study 2, we experimentally examine how senders evaluate responders who are faster versus slower to reply, and we find a robust benefit for faster replies in terms of hiring likelihood, across workers of differing quality (i.e., star rating) and across two different professions. Study 3 further shows that the effect of reply speed on hiring likelihood is shaped sequentially by expectations of future responsiveness and by impressions of warmth and competence. Finally, in Study 4, we manipulate the responsiveness of the provider's message content and document—even in the presence of this strong alternative signal for future responsiveness—the significant impact of reply speed on hiring likelihood.

The data, analyses, and preregistrations for the experimental studies can be found in an online repository

(https://researchbox.org/2599&PEER_REVIEW_passcode=HYIBPN). Study 1 data are under a nondisclosure agreement and are not available to be posted online; additional analyses can be conducted and shared upon request. We report exclusion criteria in each study, and we report materials in Appendices A–C.

Study 1

We obtained data for this study from Fiverr, one of the most popular online marketplaces for freelance digital services (Similarweb 2022). The Fiverr marketplace offers services in a variety of categories (see Table SI.4 in the Online Appendix for a complete list), encompassing millions of unique gigs. Employers (called “buyers” on Fiverr) and providers (“sellers”) can communicate through the platform, and Fiverr handles their financial transactions. The provider sets prices for gigs, and Fiverr’s revenue is generated from transaction and service fees (Cuofano 2019). There are two primary ways to transact on Fiverr: (1) selecting a pre-made offer, or “gig,” and (2) contacting the provider and discussing the terms and details of the service to be provided. We focus on the second path: transactions that follow a prehiring conversation between the employer and the provider.

This setting is particularly advantageous for studying the effect of reply speed on hiring likelihood, as all communications and contracting with the service provider happen through the platform, thus allowing us to measure the exact behaviors of interest. Another advantage of using the Fiverr data set to study behavior is that the purchases are consequential. As 80% of buyers using Fiverr at the time of our data collection were small- or medium-sized businesses, their purchases have important financial relevance. In addition, firms have been argued to act more rationally than consumers who may be uninformed or unincentivized (see Thaler 2018, Becker conjecture). Thus, we view the Fiverr marketplace as a conservative setting in which to test the hiring consequences of reply speed.

Data

Our data set includes 11,666,355 observations comprising a random selection of sessions on the platform from December 19, 2022 to December 18, 2024, in which an employer (buyer) contacted a provider (seller) in a manner that solicited a reply. All observations capture whether the conversation converted to a transaction (thus, our data do not include transactions that lacked prior conversations).

Reply Speed. We use a continuous measure of the service provider’s reply speed in minutes to the employer’s (buyer) first message. We also conducted robustness

analyses using a discrete (categorized) measure of reply speed in minutes.

Hiring (Service Purchase) Decisions. We observe for each conversation whether an actual purchase (hiring decision) was made.

Control Variables. We observe the numeric attributes of the gigs, including their price at the time of the search, as well as various provider (seller) and employer (buyer) characteristics (focusing on their time on the platform and usage frequency), and the type of platform used to interact with the marketplace (web, mobile web, or app). In terms of the interaction between buyers and sellers, we observe the number of sellers who the buyer contacted on a given date and whether the buyer-seller pair has contracted in the past. We also observe the seller’s quality rating that is visible to the buyer; this rating is generated by Fiverr to reflect internal quality and experience evaluations. We use these attributes as control variables, as they are likely to affect the purchase decision directly or indirectly. We also conduct robustness analyses as reported below based on whether a buyer contacted a single seller or contacted more than one seller, to address whether reply speed affects hiring likelihood for both types of buyer communication behavior. We include controls for the subcategory of service provided (e.g., graphic design, search engine optimization, or voiceover) (see Table SI.4 in the Online Appendix for the full list) and for whether the transaction was under the “Fiverr for Business” designation, as these buyers and sellers tend to transact over larger projects at a higher, less variable quality. See Appendix A for variables and descriptions.

Results

To determine if there is a relationship between reply speed and hiring (service purchase) likelihood, we first regressed hiring likelihood on reply speed as a continuous measure (in minutes) using a logit model without the control variables listed above. We found a strong negative relationship, such that the slower the reply is, the lower the likelihood is of service purchase ($b = -0.0006$, $z = -7.01$, $p < 0.0001$). We observed similar patterns in analyses that included controls for price, type of platform, seller quality, the number of sellers contacted, and whether the buyer is a new customer, as well as service subcategory and Fiverr for Business transactions as fixed effects and clustering standard errors (SEs) around each (see Table 1 and the details below). Overall, across all models, we see a robust negative effect of elapsed reply time.

To better understand the shape of the relationship between reply time and hiring decisions, we repeated the same set of analyses with a discrete categorized set of response times (in bins) instead of the continuous

Table 1. Logistic Regression Models of Hiring Decisions by Reply Time on Fiverr (Study 1, $N = \sim 11.66$ Million)

Independent variable	DV: Hiring decision (service purchase)			
	Base Model B (SE)	Model 1 B (SE)	Model 2 B (SE)	Model 3 B (SE)
Reply time (in minutes)	−0.000577*** (0.000003)	−0.000682*** (0.000006)	−0.000623*** (0.000008)	−0.001243** (0.000452)
Order amount			−0.000317*** (0.000002)	0.000327*** (0.000024)
Reply time $\times$ order amount			−0.0000005*** (0.00000001)	
Seller 30-day rating				0.010877*** (0.001014)
Reply time $\times$ Seller 30-day rating				−0.000004 (0.000004)
Number of sellers messaged on date				
Reply time $\times$ Num. sellers messaged				
Platform: app				
Platform: mobile web				
Platform: web				
Reply time $\times$ platform: app				
Reply time $\times$ platform: mobile web				
Reply time $\times$ platform: web				
First-time buyer				
Reply time $\times$ first-time buyer				
Same seller				
Reply time $\times$ Same seller				
Fixed effects and clustered SEs:	No	Yes	Yes	Yes
Subcategory, Fiverr for Business				
Observations	11,666,355	11,664,903	11,664,903	3,518,230
Pseudo- R^2	0.0048	0.6613	0.6616	0.0281
BIC	13,677,543.7	4,657,941.8	4,653,693.1	3,826,118.1
Log likelihood	−6,838,755.6	−2,326,164.0	−2,324,023.3	−1,910,481.5
Independent variable	DV: Hiring decision (service purchase)			
	Model 4 B (SE)	Model 5 B (SE)	Model 6 B (SE)	Model 7 B (SE)
Reply time (in minutes)	−0.000591*** (0.000059)	−0.000440*** (0.000090)	−0.000895*** (0.000068)	−0.000653*** (0.000058)
Order amount	−0.000363*** (0.000023)			
Reply time $\times$ order amount				
Seller 30-day rating				
Reply time $\times$ Seller 30-day rating				
Number of sellers messaged on date	0.013990 (0.022052)			
Reply time $\times$ Num. sellers messaged	0.000120** (0.000043)			
Platform: app				
Platform: mobile web		−1.365718*** (0.111736)		
Platform: web		−2.020093*** (0.109626)		
Reply time $\times$ platform: app		−0.000323** (0.000099)		
Reply time $\times$ platform: mobile web		0.000013 (0.000090)		
Reply time $\times$ platform: web		−0.000245** (0.000090)		
First-time buyer			1.063085*** (0.011250)	
Reply time $\times$ first-time buyer			0.000494*** (0.000046)	
Same seller				−1.645509*** (0.060200)

Table 1. (Continued)

Independent variable	DV: Hiring decision (service purchase)			
	Model 4 B (SE)	Model 5 B (SE)	Model 6 B (SE)	Model 7 B (SE)
Reply time × Same seller				−0.001850*** (0.000219)
Fixed effects and clustered SEs:	Yes	Yes	Yes	Yes
Subcategory, Fiverr for Business				
Observations	7,718,276	11,664,903	11,664,903	11,664,903
Pseudo- R^2	0.6797	0.6632	0.6875	0.6632
BIC	2,933,809.7	4,632,914.4	4,438,956.7	4,632,463.5
Log likelihood	−1,464,192.9	−2,318,601.4	−2,216,655.1	−2,313,408.5

Notes. The sample size is smaller for Models 3 and 4 (seller 30-day rating and number of sellers contacted, respectively) as these data were not available for many exchanges. BIC, Bayesian Information Criterion; SE, standard error.

*** $p < 0.001$, ** $p < 0.0001$.

measure (in minutes). Table 2 summarizes the regression results of the simple model with fixed effects and clustered standard errors. (The full set of robustness results can be found in Table SI.5 in the Online Appendix.) As seen in Table 2, there is a growing penalty for late responses, with decreases in hiring likelihood after even one to five minutes and an especially sharp decline in decisions to hire responders who reply more than 24 hours after the initial request.

Seller Quality. Buyers rate seller performance on a five-star rating scale (from zero to five stars), and the Fiverr system transforms aggregate scores to a 100-point scale for use in analyses. As shown in Model 3 in Table 1, increases in the seller’s rating increased hiring likelihood but did not interact with reply speed to affect hiring likelihood. That is, the effect of speed appears to be independent of seller quality. However, we note that the distribution of seller ratings on Fiverr, as in many online settings, is very skewed (97% of all sellers had seller star ratings between 4.5 and 5.0). We conducted a similar robustness analysis using the seller “level,” a quality indicator shown to the buyer, which includes four ordinal categories. We observe similar

effects of speed in this analysis, which is reported in the Online Appendix.

Number of Sellers Contacted. On average, buyers contact 3.71 sellers (providers) in a day (this could be for one or more types of services). Notably, over 3 million transactions in our data set happened when only one seller was contacted. As shown in Model 4 in Table 1, the number of sellers contacted does not affect hiring likelihood on average, but interacts with reply speed to affect hiring. The more sellers contacted, the greater the negative effect is of delay. Although it is possible that this effect is partially driven by job availability, whereby buyers hire the first seller to respond—meaning that the job no longer exists for sellers who respond later—our theory proposes that reply speed signals responsiveness and other important attributes that encourage hiring faster responders above and beyond this mechanical reason of job availability. To further assess the robustness of our effect and test our theorizing, we thus conducted analyses including only buyers who contacted one seller on the relevant day; these analyses again show a negative effect of delay ($b = -0.0007$, $z = -12.56$, $p < 0.001$). That is, buyers are

Table 2. Logistic Regression Models of Hiring Decisions by Reply Time as a Discrete Measure (in Bins; Study 1, $N = \sim 11.66$ Million)

Independent variable: Reply time (compared with <1 minute; 55.64% of responses)	Hiring decision (service purchase)
1–5 minutes (15.33% of responses)	−0.166*** (0.017)
6–10 minutes (4.14% of responses)	−0.344*** (0.032)
11–30 minutes (6.48% of responses)	−0.485*** (0.038)
31–60 minutes (3.78% of responses)	−0.611*** (0.042)
1–24 hours (13.34% of responses)	−0.850*** (0.044)
Over 24 hours (1.29% of responses)	−2.148*** (0.050)
Fixed effects and clustered SEs	Subcategory; Fiverr for Business
Observations	11,664,903
Pseudo- R^2	0.6648
BIC	4,609,912.7
Log likelihood	−2,302,108.7

Note. BIC, Bayesian Information Criterion; SE, standard error.

*** $p < 0.001$.

sensitive to reply speed even if they contacted (and waited for) only one seller. This suggests that the effect does not merely arise because some buyers have a sense of urgency for the task and therefore hire the first provider to respond out of a group contacted. Rather, very much in line with the proposed theory, our effect appears to occur because prompt replies increase hiring desirability.

Buyer Attributes. We first compared buyers based on how they accessed Fiverr—specifically, whether they primarily used the mobile app or the website (Model 5 in Table 1). We find that the provider's reply speed has a larger effect on the mobile app. On the mobile app, people are more likely to get immediate notifications about new messages, which may mean that they more frequently check their communications and which may increase the salience of reply speed when evaluating potential providers; this, in turn, might explain the larger effect of delay.

Next, we explored whether the effect of reply speed on hiring likelihood differed between first-time buyers on the platform and more experienced users (Model 6 in Table 1). We find that the harmful effect of reply delay on hiring likelihood is smaller for first-time buyers; that is, first-time buyers are more patient than buyers who have more experience on the Fiverr platform.

Finally, we compared buyers who are purchasing a service from the same seller they have used before with buyers who are purchasing from a seller who is new to them (Model 7 in Table 1).² The negative effect of delay was larger for repeat buyers from the same seller than for those who buy from a different seller than they previously used.

Discussion

Analyses of this large-scale online market data from Fiverr revealed a substantial and robust penalty for delayed replies to potential employer queries. Here, we observe that reply delays predict a sizable reduction in a service provider's likelihood of being hired or contracted with. A back-of-the-envelope calculation based on our regression results reveals that a one-hour delay decreases conversion (i.e., the likelihood of being hired) by 46% and that a one-day delay reduces conversion by about 90%. Given that Fiverr reports annual transaction revenue in excess of \$425 million,³ these delays would amount to overall freelancer losses of \$195 million and \$382 million, respectively, if these reductions in conversion rates were applied platform wide. More notable may be the complete loss of work for individual freelancers who are slow to reply. Similarly, a three-hour delay would be equivalent to the reduced purchase likelihood from a 0.1-star decrease in quality rating on the 5-star scale used. Given that the effective

range lies in the interval of 4.5–5, this would be akin to a 20% decrease in quality.

In sum, these data underscore the robustness and importance of how quickly individuals reply to service requests, especially in the competitive context of hiring decisions. To test whether the benefits of reply speed extend beyond the specific context of Fiverr—and to gather evidence in support of our theorizing about the role of expected future responsiveness—we next turn to a series of experiments that tightly control the messages sent and other information present when evaluating responses.

Study 2

In our experimental studies, we sought to test how prospective employees' reply speed to an employer's initial message influences employers' (i.e., initial message senders') likelihood of hiring or retaining the provider. We first conducted a pilot study to assess what people consider "faster" and "slower" replies when sending job inquiry emails or messages online. We used these time frames to guide our subsequent condition manipulations.

Pilot Study

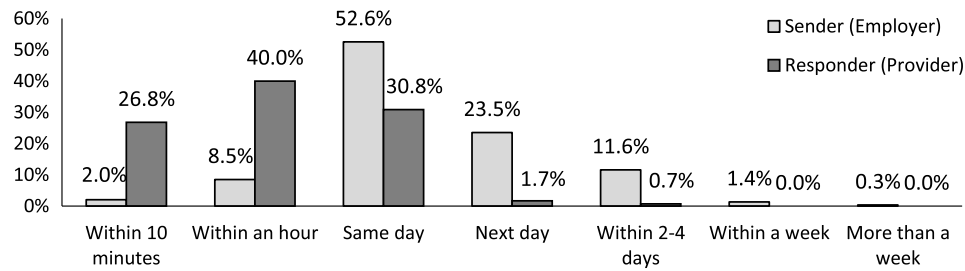
Participants. We recruited 600 U.S. participants through Prolific. Consistent with our preregistration, we report results for 588 participants who correctly completed an attention check about the study (49.66% female, 49.66% male, 0.68% preferred to self-identify; $M_{age} = 41.01$, standard deviation (SD) = 11.94).⁴

Procedure. Participants were randomly assigned to the role of either an employer (sender) or a provider (responder). For robustness, we also randomly assigned participants to one of two services: photography or copyediting. Employers read that they were looking for a provider (photographer or copy editor) for their new business and had emailed a specific provider to express interest in working with them. Providers read that they worked as a photographer or a copy editor and that they had received an email from a potential client. We include the full text in Appendix B. We did not find meaningful differences between the service conditions, and consistent with our preregistration, report results collapsed across them.

Senders answered, "When do you think [provider] would respond to your email?" Responders answered, "When would you respond to [the client's] email?" Both questions were rated using ordered response options of "within 10 minutes," "within an hour," "the same day," "the next day," "within 2–4 days," "within a week," and "after more than a week."⁵

Results. The pattern of results suggests three insights. First, the modal expectation on the sender (employer)

Figure 1. Expected Reply Time by Senders (Employers) and Responders (Providers; Pilot Study; $n = 588$)



Note. Percentages note the proportion within each role condition (sender or responder).

side is to receive a reply within a day. Second, most responders (providers) expect to send a reply within an hour. Lastly, responders expected that they would have quicker reply times than senders expected (expected reply time: $\chi^2(6) = 228.17$, $p < 0.001$; Kolmogorov–Smirnov $D = 0.562$, $p < 0.001$) (see Figure 1). We present more detail in the Online Appendix.

Main Study Method

Based on the Pilot Study, we examine hiring likelihood when the provider replies after one hour (aligned with the provider’s modal response) versus when the provider replies at the end of the day (aligned with the employer’s modal expectation). In this study, we also explore whether the provider’s quality as stated via their platform star rating interacts with reply speed to influence hiring.

We predict a positive main effect of reply speed on hiring likelihood, such that faster replies will increase hiring likelihood. We also predict a main effect of ratings, such that a higher rating will increase hiring likelihood relative to a low rating or control condition. In addition, we test whether the effect of speed differs based on the presence (versus absence) of a quality (rating) signal. That is, we examine whether the effect of reply speed is attenuated with a high rating and with a low rating versus the control condition where there is no rating mentioned for the candidate.

Finally, to extend this work beyond the Fiverr context, we examine the effect of reply speed and quality ratings for both caterers (whose work may resemble that of gig workers, but in a nondigital setting) and doctors.

Participants. We posted the study for 1,800 U.S. participants through Connect and received 1,801 responses. Consistent with our preregistration, we report results for 1,783 participants who correctly completed an attention check about the study (48.57% female, 50.20% male, 1.23% preferred to self-identify; $M_{age} = 41.54$, $SD = 12.65$).

Procedure. Participants read that they were looking either for a caterer or for a doctor (for an event or a

checkup, respectively) in a few months and had emailed a specific provider around 10 a.m. We manipulated the speed of the provider’s reply: either after one hour (around 11 a.m.) or at the end of the day (5 p.m.).

We also manipulated the platform rating of the provider, presenting a high rating (4.85 of 5), a lower rating (4.25 of 5), or no rating. Consistent with our preregistration, we treat the reply time and rating conditions as the main conditions, and we report results across the two profession (caterer or doctor) conditions. The pattern and significance of our results remained the same when we included the profession and its interactions with our main conditions in the analyses (see the Online Appendix). Thus, below, we compare six between-participant conditions in a 2 (reply time: one hour versus end of day) $\times$ 3 (rating: high versus low versus control) design.

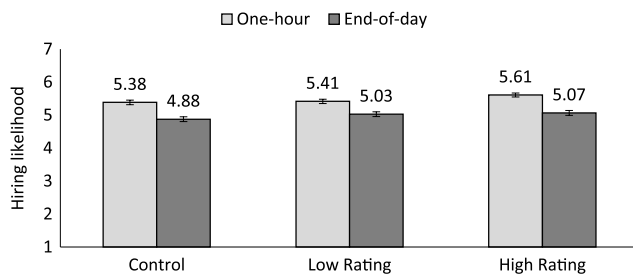
As a manipulation check, at the end of the survey, participants indicated their opinion of the provider’s reply speed (one item, rated on a seven-point scale from 1 = very slow to 7 = very fast). We regressed this on timing condition, rating conditions (as two dummy variables, relative to the baseline in which rating is not mentioned), and the interaction terms. As expected, overall, the reply time was perceived as faster in the one-hour condition ($M = 6.00$, $SD = 1.02$) than in the end-of-day condition ($M = 4.42$, $SD = 1.44$; $B = 1.550$, $SE = 0.073$; $\eta^2 = 0.204$; $t(1,777) = 21.35$, $p < 0.001$). There were no significant effects of rating conditions or their interaction terms with the timing condition (all p -values were > 0.24).

Measures. We assessed participants’ likelihood of hiring the provider (one item rated on a seven-point scale from 1 = very unlikely to 7 = very likely).

Results

We present means in Figure 2. We regressed hiring likelihood on the timing condition, rating condition (two dummy variables compared with the control, no rating condition), and the interaction terms.

Providers were, on average, more likely to be hired when they replied within one hour ($M = 5.47$, $SD = 1.12$)

Figure 2. Hiring Likelihood by Reply Speed for the Control, Low-Rating, and High-Rating Conditions (Study 2; $n = 1,783$)

Notes. Compared with providers who replied within one hour, providers who replied at the end of the day were less likely to be hired across all rating conditions. Error bars represent plus or minus the standard error of the mean.

than when they replied at the end of the day ($M = 4.99$, $SD = 1.26$; $B = 0.466$, $SE = 0.069$; $\eta^2 = 0.025$; $t(1,777) = 6.74$, $p < 0.001$). They were also more likely to be hired in the high-rating condition ($B = 0.208$, $SE = 0.069$; $\eta^2 = 0.005$; $t(1,777) = 3.00$, $p = 0.003$) than when there was no star rating available. The low-rating condition did not have a significant effect relative to control ($B = 0.091$, $SE = 0.069$; $\eta^2 < 0.001$; $t(1,777) = 1.32$, $p = 0.186$), and neither rating condition interacted with timing to affect hiring likelihood ($B_{\text{One-hour} \times \text{High-rate}} = 0.017$, $SE = 0.069$; $\eta^2 < 0.001$; $t(1,777) = 0.25$, $p = 0.800$; $B_{\text{One-hour} \times \text{Low-rate}} = -0.060$, $SE = 0.069$; $\eta^2 < 0.001$; $t(1,777) = -0.87$, $p = 0.384$).

Discussion

Consistent with our Fiverr data, we find experimental evidence that when a provider replies to a prospective employer's message, a delay of several hours can cause a significant reduction in hiring likelihood relative to a reply received within one hour. This effect occurs both when there is no rating information and when the provider is rated as either 4.25 stars (low) or 4.85 stars (high), suggesting that the impact of reply speed on hiring likelihood operates independently of one's reputation. We note that, as in the Fiverr data, there was a significant positive impact of a provider's star rating, with participants indicating that they would be more likely to hire the caterers and doctors who were rated as 4.85 stars than those rated as 4.25 stars or those with no star rating mentioned. That is, participants do care about reputation as evaluated by prior customers, but reply speed matters even for highly rated providers.

We also observed significant benefits of reply speed for both caterers and doctors. This suggests that our effects are not limited to gig workers on an online platform, but that people prefer faster responses from a wide range of professions (for further evidence across various professions, see Supplemental Study S1 in the Online Appendix). Of note, the delay tested here is relatively modest given the busy lives of both caterers and doctors; even with a "long delay," the provider

still responded during the same day that the email was received, for a delay of approximately seven hours. Given that either profession could have required them to be actively working during that interim, the fact that participants still noticed and responded positively to providers who responded in one hour provides evidence contrary to the possible signaling benefits (e.g., signaling demand or popularity) of "playing hard to get." Rather, participants rewarded those providers who responded quickly.

Study 3

In this study, we test our prediction that reply speed affects hiring likelihood by shaping interpersonal expectations of future responsiveness and perceptions of warmth and competence. We postulate that faster (versus slower) reply speed could signal these useful attributes in a worker, which in turn, could enhance hiring likelihood.

Method

Participants. We posted the study for 600 U.S. participants through Prolific. Consistent with our preregistration, we report results for 574 participants who correctly completed an attention check about the study (48.78% female, 51.22% male; $M_{\text{age}} = 39.90$, $SD = 13.89$).

Procedure. Participants read that they were looking for a photographer for their website and had emailed a specific provider they were interested in hiring. We manipulated the speed of the provider's reply. This time, we used manipulations of delay consistent with a study now featured in Supplemental Study S2 in the Online Appendix: after either one hour or two days. See the full text in Appendix B.

Measures. We examined three additional variables along with participants' likelihood of hiring the provider (measured as in Study 2). All four variables were presented in random order: perceptions of the provider's warmth (four items rated on a seven-point scale from 1 = not at all to 7 = a great deal, $\alpha = 0.93$) and competence (four items rated on the same seven-point scale, $\alpha = 0.93$), as well as expectations of the provider's future responsiveness (eight items adapted from Crasta et al. 2021, to reference perceptions of the provider's behavior in a potential future relationship, such as "[target] will really listen to me" and "[target] will be interested in what I am thinking and feeling," seven-point scale from 1 = completely disagree to 7 = completely agree, $\alpha = 0.91$). See the items in Appendix C.

Results

Participants were more likely to hire the provider when they replied after one hour ($M = 5.28$, $SD = 1.33$) than when they replied after two days ($M = 4.50$, $SD =$

1.62; $B = 0.781$, $SE = 0.123$; Cohen's $d = 0.528$; $t(572) = 6.33$, $p < 0.001$). In addition, in the one-hour condition (versus in the two-day condition), the provider was expected to be more responsive in the future (one hour: $M = 5.32$, $SD = 1.03$; two days: $M = 4.84$, $SD = 1.15$; $B = 0.473$, $SE = 0.091$; $d = 0.434$; $t(572) = 5.20$, $p < 0.001$), warmer (one hour: $M = 5.31$, $SD = 1.03$; two days: $M = 4.77$, $SD = 1.20$; $B = 0.541$, $SE = 0.093$; $d = 0.484$; $t(572) = 5.80$, $p < 0.001$), and more competent (one hour: $M = 5.46$, $SD = 0.96$; two days: $M = 5.03$, $SD = 1.16$; $B = 0.436$, $SE = 0.089$; $d = 0.410$; $t(572) = 4.91$, $p < 0.001$).

Mediation Test. We tested a serial mediation model (see Figure 3) wherein the effect of reply speed on hiring likelihood is mediated by (1) future responsiveness, (2a) warmth, and (2b) competence using bootstrap with 5,000 resamples (Preacher and Hayes 2008). We found support for this serial mediation model (indirect effect of reply speed through future responsiveness: $B = 0.152$, 95% confidence interval (CI) = [0.079–0.225]; indirect effect of speed through warmth: $B = 0.083$, 95% CI = [0.022–0.143]; indirect effect of speed through competence: $B = 0.072$, 95% CI = [0.003–0.141]). The remaining direct effect of speed in the model with all mediators was still significant ($B = 0.220$, $SD = 0.082$; $z = 2.69$, $p = 0.007$).

Discussion

This study again shows that faster (versus slower) responders are more likely to be hired for a job. We further show that workers who reply more quickly are expected to be more responsive in the future and are perceived as warmer and more competent. In Supplemental Study S2 in the Online Appendix, we find similar positive effects of reply speed on evaluations of the worker's warmth, competence, and hiring likelihood.

In addition, in Supplemental Study S2 in the Online Appendix, we find that workers' reply speed affects various proximal evaluations—perceptions of their need, professionalism, work motivation, and overall impression.

Finally, the results of this study support our predictions that faster (versus slower) reply speed increases hiring likelihood through (a) increasing expectations of the worker's future responsiveness and (b) increasing perceptions of the worker's warmth and competence (see Figure 3).

Study 4

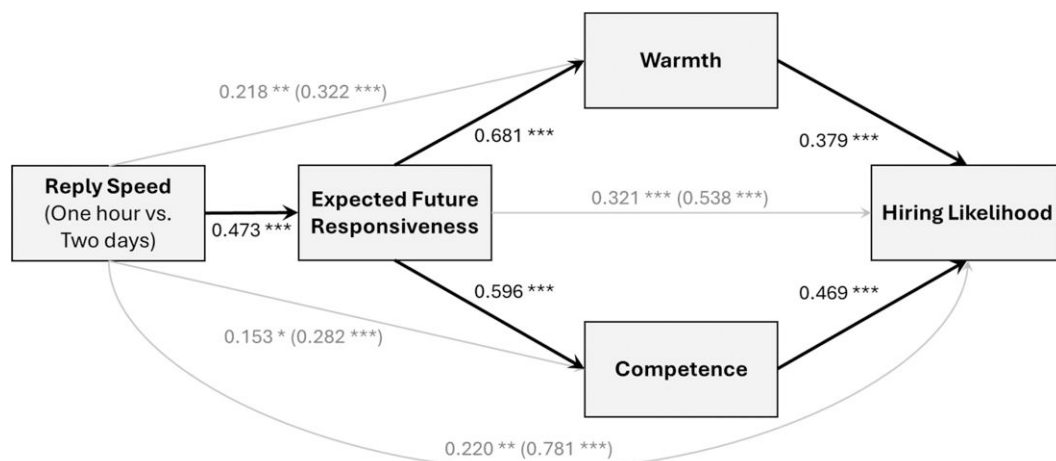
Although our previous experiments have described the basic content of the provider's reply, it is possible that participants still assumed different message content based on how long it took the provider to send the message. In Study 4, we manipulate the content of the provider's message to test the impact of reply speed in the presence of other signals that should influence expectations of future responsiveness.

Method

Participants. We posted the study for 1,200 U.S. participants through Connect and received 1,260 responses. Consistent with our preregistration, we report results for 1,246 participants who correctly completed an attention check about the study (54.33% female, 44.54% male, 1.13% preferred to self-identify; $M_{age} = 41.25$, $SD = 13.23$).

Procedure. This procedure was similar to that of Study 2. Participants were looking to hire and had messaged a caterer, and the caterer responded either within one hour or at the end of the day. No star ratings were provided in this study. We manipulated content cues of responsiveness vis-à-vis the text of the caterer's reply

Figure 3. Study 3 ($n = 574$): Serial Mediation Model of Reply Speed on Hiring Likelihood Through Perceptions of the Worker's (1) Future Responsiveness, (2a) Warmth, and (2b) Competence



Notes. Numbers reflect standardized regression coefficients. Numbers in parentheses reflect the direct effects. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

with a neutral message and a message pretested to be high in responsiveness. We thus compare four between-participant conditions in a 2 (reply time: one hour versus end of day) $\times$ 2 (content responsiveness: high versus neutral) design.

In the high-responsiveness condition, the provider wrote back, “I’ll make sure to stay in close contact as we plan so everything feels seamless and comfortable. Over the past two years, I’ve learned that great events come from good communication, so I look forward to learning more about your vision for the event.” In the neutral condition, the provider wrote, “I will have a plan in place and follow standard protocols for large catering events. Over the past two years, I have catered for a variety of different professional and business gatherings, and I will use this experience to prepare the event.” See the full text in Appendix B. As a manipulation check, at the end of the survey, participants indicated how responsive the provider’s message was (one item, rated on a seven-point scale). We regressed this on timing condition, content condition, and their interaction term. As expected, overall, the message was rated as more responsive in the high-responsiveness condition ($M = 5.81$, $SD = 1.17$) than in the neutral condition ($M = 5.12$, $SD = 1.37$; $B = 0.701$, $SE = 0.070$; $\eta^2 = 0.075$; $t(1,242) = 10.02$, $p < 0.001$) and as more responsive in the one-hour condition ($M = 5.77$, $SD = 1.26$) than in the end-of-day condition ($M = 5.16$, $SD = 1.31$, $B = 0.607$, $SE = 0.070$; $\eta^2 = 0.057$; $t(1,242) = 8.68$, $p < 0.001$); the interaction effect was not significant ($B = -0.014$, $SE = 0.070$; $\eta^2 < 0.001$; $t(1,242) = -0.20$, $p = 0.842$).

Measures. We examine participants’ likelihood of hiring the provider and their expectations of the provider’s future responsiveness ($\alpha = 0.95$) using the same measures as in Study 3.

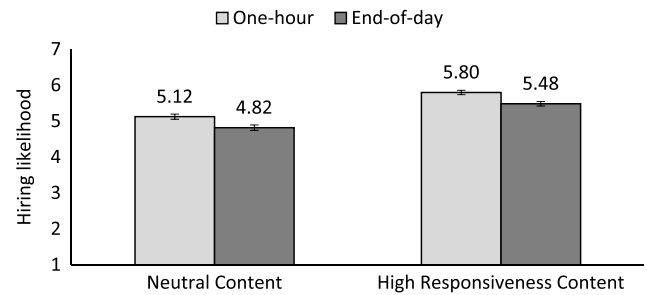
Results

We regressed hiring likelihood and future responsiveness expectations on the timing condition, the content condition, and the interaction term.

Hiring Likelihood. Providers were, on average, more likely to be hired in the one-hour condition than in the end-of-day condition ($B = 0.310$, $SE = 0.068$; $\eta^2 = 0.016$; $t(1,242) = 4.53$, $p < 0.001$), and they were more likely to be hired in the high-responsiveness condition than in the control condition ($B = 0.671$, $SE = 0.068$; $\eta^2 = 0.072$; $t(1,242) = 9.81$, $p < 0.001$). There was no significant interaction effect ($B = 0.004$, $SE = 0.068$; $\eta^2 < 0.001$; $t(1,242) = 0.06$, $p = 0.954$). That is, the effects of speed and of reply content on hiring likelihood seem to be orthogonal; see Figure 4.

Future Responsiveness. Providers were expected to be more responsive in the future, on average, in the one-hour condition than in the end-of-day condition

Figure 4. Hiring Likelihood by Reply Speed for the High-Responsiveness and Neutral Content Conditions (Study 4; $n = 1,246$)



Notes. Across content conditions, compared with providers who replied within one hour, providers who replied at the end of the day were less likely to be hired. Error bars represent plus or minus the standard error of the mean.

($B = 0.140$, $SE = 0.059$; $\eta^2 = 0.005$; $t(1,242) = 2.38$, $p = 0.017$), and they were expected to be more responsive in the future in the high-responsiveness condition than in the neutral condition ($B = 0.630$, $SE = 0.059$; $\eta^2 = 0.085$; $t(1,242) = 10.73$, $p < 0.001$). Again, there was no significant interaction effect ($B = -0.040$, $SE = 0.059$; $\eta^2 < 0.001$; $t(1,242) = -0.69$, $p = 0.492$).

Mediation Test. We tested a moderated mediation model wherein the effect of reply speed on hiring likelihood is mediated by expectations of future responsiveness and where the content condition is a moderator of the path between independent variable and mediator. We again used bootstrap with 5,000 resamples. We found a significant indirect effect of speed through future responsiveness (indirect effect = 0.111, 95% CI = [0.019–0.203]; remaining direct effect $B = 0.199$, $SD = 0.052$; $z = 3.87$, $p < 0.001$). However, as described above, because the content condition did not moderate the effect of speed on future responsiveness or hiring likelihood, we did not find support for the moderated mediation.

Discussion

In this study, we find that when a provider replies to a prospective employer’s message, both the reply timing and its content (as a signal of the provider’s quality and responsiveness) affect their hiring likelihood. Overall, faster replies yield benefits for hiring likelihood, at least in part because faster replies can signal that the provider would be more responsive in the future. Our findings suggest that this benefit of reply speed holds even in the presence of another clear cue of the provider’s responsiveness: the content of their current message. Although we do not observe the moderation effect that might have been predicted by our framework, wherein the benefits of speed for hiring likelihood are diminished in the presence of other signals

regarding one's future responsiveness, this study still provides support for our framework linking speed, expectations of responsiveness, and hiring decisions.

We find further support for the separate effects of responsiveness and reply time in Supplemental Study S3 in the Online Appendix, in which participants evaluated five providers. In this study, participants were most likely to choose the responder who wrote the longest, most energetic response, despite the fact that he was the last to respond; this result suggests that there are substantial benefits to writing detailed messages. Notably, however, even when this detailed message was evaluated jointly with a message from another responder, the person who responded first received a boost in rated hiring likelihood when time stamps were present. Thus, when the discrepancy in reply times was salient, even though multiple providers demonstrated responsiveness through message content, evaluators still rewarded the provider who responded first.

Notably, in Study 4 (and Supplemental Study S3 in the Online Appendix), we tested the possible moderation of the effect of reply speed by comparing neutral and highly responsive message content to best mimic the kinds of responses that might be expected in many professional contexts. In Supplemental Study S4 in the Online Appendix, however, we find that the effect of reply speed is significantly attenuated when the content of a reply is described to participants as being particularly low in responsiveness (e.g., "It is likely [provider] won't listen to what is important to you," "[provider] is not very interested in what you truly need"). Together, our results suggest there may indeed be boundary conditions for the benefits of reply speed, but only when responses themselves are so poor (Supplemental Study S4 in the Online Appendix) or appear to be automatically generated (Supplemental Study S5 in the Online Appendix) that reply speed is no longer a relevant signal of future responsiveness.

In Study 4, however, we find evidence that a good response is still liked better when it is received more quickly. That is, we consistently show that when other signals—quality rating, message content, and seller level on Fiverr—are positive, neutral, or absent, reply speed stands as a positive and meaningful signal of hireability.

General Discussion

In data from both the laboratory and the field ($N = \sim 11.66$ million), we find that job candidates benefit from responding sooner to initial messages and indeed incur a hiring penalty for delayed responses to customer queries. In our experimental studies (Studies 2–4 and Supplemental Studies S1–S5 in the Online Appendix), we find consistent impression management benefits for replies that signal greater responsiveness and consistent penalties for delayed replies. These

effects occur when considering actual gig workers in a real online marketplace featuring millions of transactions as well as controlled scenarios with a range of possible hiring contexts, including photographers, caterers, and doctors. Curiously, we find that employers—senders of initial requests—rate slower replies less positively than faster replies even when a slower reply is received within the same day, despite our Pilot Study findings that suggested that senders expected replies within one day. This finding suggests that senders' actual preferences are less forgiving than their stated expectations. Indeed, the field data from the Fiverr marketplace (Study 1) show that at least in the context of an online marketplace for freelance digital services, penalties can begin to accrue even at the level of a single minute of delay in responding. Quite literally, every minute counts.

Notably, we identify expectations of the prospective employee's future responsiveness as an important mechanism underlying the effects of reply speed on hiring likelihood and on interpersonal evaluations of warmth and competence (Study 3). This signal of future responsiveness conveyed by reply speed appears to largely operate independently from other signals of responsiveness, such as reputation (Study 2) or message content (Study 4 and Supplemental Study S3 in the Online Appendix), meaning that even top candidates can benefit from replying sooner (or be hurt by delaying their response). Yet, there are sensible boundary conditions to this effect; in Supplemental Studies S4 and S5 in the Online Appendix, we show that when replies include content that directly signals low responsiveness or are so fast as to appear automatically generated, the benefits of reply speed attenuate. When workers are given the choice between taking time to respond with an actual reply or using a faster, automatically generated reply, our results appear unequivocal: employers prefer the genuine, personalized reply. But, holding the content of one's authentic response constant, there is no need to wait; faster replies indicate greater future responsiveness, greater warmth, and greater competence, and employers prefer to hire those who write back more quickly.

Theoretical Contributions

Past work has treated workers' beliefs about reply speed as biased, suggesting that they tend to overestimate the negative consequences of delays and therefore rush to complete tasks faster than is strictly necessary given others' expectations (Barley et al. 2011, Giurge and Bohns 2021). Although our project investigates communication speed rather than speed of task completion, our findings add to this discussion of how managers evaluate others in work-relevant contexts. We show that although message senders might report having reasonably generous expectations about communication speed, their actual evaluations and downstream

behaviors indicate that they still prefer more immediate replies. This finding is consistent with other recent work showing how managers' reported expectations might not align with their judgments of or behavior toward their employees. For instance, managers who said that they wanted their workers to be able to detach from work during their off hours also penalized workers who requested time off or detached in other ways (Buechel and Solinas 2025). Furthermore, the results from Study 3 and Supplemental Study S2 in the Online Appendix indicate that the differences in senders' preferences emerge, at least in part, from differing impressions of the responders' attributes. As such, responders' beliefs that they should be "always on" may protect fast-responding individuals from interpersonal penalties that would be experienced by slower-to-respond counterparts.

Across studies, our findings suggest that delaying a response does not make a positive impression on senders and that employing such a "hard-to-get" strategy (Walster et al. 1973, Hazel et al. 2023) may be detrimental to perceptions of competence and warmth, in turn reducing the likelihood of being hired. Moreover, challenging the notion that perceptions of competence and warmth are substitutes that must be traded off in a hydraulic fashion (Judd et al. 2005, Kervyn et al. 2010, Bergsieker et al. 2012, Holloien and Fiske 2013, Chaudhry and Loewenstein 2019), we find that when people respond quickly, they are perceived as both considerate and competent. This result aligns with recent work that suggests that impression-management strategies in communication can foster both warmth and competence simultaneously (e.g., VanEpps et al. 2024, Pai et al. 2025).

Importantly, we propose and test when and why reply speed might confer benefits for hiring likelihood. In a hiring context, there are often relatively few signals of a potential employee's attributes, or as in the case of Fiverr, alternative signals of seller quality may appear roughly equivalent across individuals when using a fairly coarse measure (e.g., zero to five stars). In such contexts, we identify that reply speed can signal future responsiveness in a way that positively predicts impressions of warmth and competence. Notably, when other signals of future responsiveness are strong, such as a message that includes text that is more detailed or enthusiastic, the first to respond is not necessarily the most likely to be hired (Supplemental Study S3 in the Online Appendix). But, even here, the more salient timing is, the more likely the first responder is to be hired. Including time stamps on the emailed messaging significantly increased participants' willingness to hire the first to respond. These findings, along with the results of Supplemental Studies S4 and S5 in the Online Appendix, highlight potential boundary conditions of our effect. Reply speed, although still beneficial, cannot fully compensate for less responsive message content or for perceptions that the message was automatically

generated. One might postulate that if speed is valued, then replying with a quick acknowledgement or setting an immediate automatic response to always be the fastest could be a beneficial strategy for service providers. However, employers in our supplemental studies made rather sophisticated judgments that suggested awareness of such automated responses and indicated preferences for more authentic-seeming responses that took longer to be received. As such, our main effect regarding the benefits of reply speed should be applied in an equally sophisticated manner. Holding message content constant, reply speed helps, but speed alone cannot save an unresponsive reply.

Practical Contributions

Job seekers and employees can use these findings to strengthen their communication strategy during the hiring process. Although candidates often focus on formal application materials to signal their qualifications, our results show that reply speed becomes a salient indicator of future responsiveness and hireability once a one-to-one conversation with an employer has begun. Even in the asynchronous electronic communication that we study, well-established conversational norms (Grice 1975) likely drive expectations of turn taking and timely cooperation. We find that even short delays carry substantial costs in freelance marketplaces; in our field data from Fiverr (Study 1), a one-hour delay reduces hiring likelihood by 46%, and a full-day delay reduces hiring by roughly 90%. Put in terms of differences observed regarding star ratings for Fiverr providers, a three-hour delay functions like an effective 20% reduction in perceived quality. In contrast, reply speed is likely to be less diagnostic in the initial open-application (job-posting) phase when employers have no basis to infer when a job seeker has "entered" the conversation, and signaling based on reply speed is more difficult.

Once a conversation is initiated, reply behavior—timing included—signals engagement, warmth, competence, and expected future responsiveness. Accordingly, our prescriptive advice for job seekers would be to take the necessary time in an initial application to make a strong first impression (e.g., write a detailed cover letter and prepare helpful documents), but upon advancement to the next stage of the hiring sequence, wherein the employer contacts the job seeker (e.g., to invite them for an interview, request additional information, or offer a job), job seekers need to consider that their reply speed becomes an important signal of their hireability. At the same time, speed alone is not enough. Automated or overly generic messages, particularly those suspected to be artificial intelligence (AI) generated, do not produce the same positive inferences as authentic, personalized replies (Study 3 and Supplemental Studies S3–S5 in the Online Appendix). As AI becomes more prevalent in online interactions

(Storozuk et al. 2020, Keith and McKay 2024, Ahler et al. 2025), our findings suggest that strong signals of personalization or authenticity may grow in relative importance. Conversely, as AI evolves to provide better responses, the cost of a prompt reply drops significantly. Thus, workers should balance thoughtful content with timeliness to best signal their future responsiveness, which we theorize and find to be an important criterion for hiring decisions.

For managers and employers evaluating candidates or employees, our findings underscore the need to be aware of the impact of reply speed on evaluations and interpret reply delays with greater nuance. Employers should consider that frequent fast replies in a marketplace may create unrealistic expectations for employees to be “always on” and respond to messages immediately, at the expense of reply quality and other work tasks. Concerns about timeliness and discomfort in asking for more time have been shown especially for women, with sizable consequences for time stress and subsequent burnout (Whillans et al. 2021). The possibility of excessive time-related expectations stands as a potentially pernicious consequence of the contract-for-hire dynamic that has become so popular in the gig economy. Moreover, employers should recognize that in some cases, relying on reply speed might advantage certain responders for irrelevant reasons (e.g., by time zones). In such cases, employers could explicitly clarify their expectations of workers’ reply time or set a waiting period before looking for responses.

Finally, organizations and platform designers have opportunities to determine how much they want to make reply speed salient and amplify (or moderate) its importance. We identify that reply speed is a consistent positive signal across contexts, perhaps owing to the fact that speed is a clear, accessible metric by which candidates can be evaluated—in contrast to more nuanced attributes, like thoughtfulness or expertise. Organizations should consider whether speed could (or should) be relied upon and whether norms in professional communications might shift toward speed over substance. Online marketplaces, in particular, can reconsider how prominently they display timing indicators (e.g., Supplemental Study S3 in the Online Appendix shows how time stamps can influence hiring likelihood) and explore additional ways to reliably convey a worker’s professionalism, quality, and engagement. Alternatively, to the extent that organizations and platforms want to encourage people to reply quickly, they could advise users of these considerations and encourage more transparency about communication speed norms.

Limitations and Future Directions

As in most empirical investigations into interpersonal judgments or important real-world consequences like hiring decisions, each of our studies is, by necessity,

constrained by either experimental paradigms or existing field data parameters. However, we believe that the combination of the two types of studies accounts for the other’s limitations. For instance, our experiments either hold constant or directly manipulate the content of replies. In real life, it is possible that more delayed replies could, on average, be more detailed or more thoughtful because responders took more time and made more of an effort to generate them. Ultimately, the Fiverr data (Study 1) give us confidence that the penalty for delayed replies frequently outweighs any relative improvements in the quality of replies that come with greater time, across different job requirements and task complexity. However, future research could explore the trade-off between speed and quality. It is also possible that a provider could “buy time” with a quick message saying that they will provide their full response soon; by indicating that they care enough about the sender to work on a personalized response and are organized enough to respond quickly, they might reduce or offset the penalty that we observed for delays.

In our studies, we demonstrate meaningful costs for one’s likelihood of being hired after a delayed reply. However, a lay theory that one should “play hard to get” frequently implies that a fast reply could signal desperation or otherwise hurt one’s negotiating power. Exploratory measures in Supplemental Study S2 in the Online Appendix captured some preliminary evidence that people believe that more immediate replies indicate that the responder is eager, desperate, and in need of the work. These beliefs might still motivate the sender to hire the quick responder (which is desirable) but with meaningful costs for the newly-hired employee, such as less generous wages or poorer working conditions. Prior work on the “labor illusion” (Buell and Norton 2011) also suggests that people sometimes prefer longer waits because the delay in responding seems to signal a greater exertion of effort. Future research could further test the impact of reply speed on meaningful downstream consequences, like wages or decisions to assign additional tasks to an employee. In a multiround negotiating context, future research could also explore the impact of initial reply speed on the relationship between senders and responders to investigate whether benefits accrue from delays beyond the first impressions captured here.

We explicitly studied contexts in which an initial sender directly contacts potential employees and seeks a response before making a hiring decision. This is potentially distinct from contexts in which jobs are posted in an open forum, often with a stated deadline, and applications are considered after the deadline has passed. As noted in the Practical Contributions section, the job-posting context likely makes reply speed a noisier, less informative signal of candidates’ attributes,

and thus, it should reduce the extent to which employers attend to or rely on speed to evaluate providers. We call for future research to investigate the impact of submission speed in response to job postings as well as the effects of speed in other contexts in which the opening salvo of communication is less directed and therefore, inferences about reply speed might be different than those that we observe.

By investigating initial hiring decisions, we have focused on first and second impressions. Future research might identify whether penalties for slow replies also accrue in contexts where individuals have existing relationships or other signals of warmth and competence to consider. We expect that when other signals of one's character are available or when reply speed is made less salient (e.g., by not providing time stamps, such as in Supplemental Study S3 in the Online Appendix), the relative importance of reply speed may diminish. We also note that reply speed and first impressions are likely to be especially influential in some work sectors, such as freelance or gig work, that frequently involve one-off relationships and high competition between job seekers and in which people have strong expectations of fast replies. Future work could also explore whether different expectations about appropriate reply speed can moderate the benefits of faster (versus slower) replies. In addition, although we largely investigate work-for-hire gigs that are transactional and discrete and that require relatively little relationship building between employer and employee (e.g., photography and copy-editing), more relationship-oriented jobs could potentially yield different evaluations of quick replies (e.g., reluctance to hire a "desperate" babysitter). At the same time, would one not want to employ the babysitter who always replies immediately, assuming some baseline level of competence?

Finally, future research should explore whether the signals sent by reply speed are predictive of providers' actual performance. Responders surely do not treat all job requests equally; to the extent that they choose to reply more quickly to jobs that are more desirable or easier to secure, we might observe natural sorting, by which simpler jobs are responded to more quickly. In

such a case, provider quality would not necessarily be predicted by reply speed, but job desirability would be. Moreover, in the field data (Study 1), we observe heterogeneity in the effect size, but not the effect's direction, across different service categories. However, if there is a theory-driven pattern to the different effect sizes, we could not put our finger on it. Exploring evaluations of actual performance, as predicted by reply speed, can help managers understand the value of the signals observed here and whether to continue to pay attention to reply speed.

Conclusion

Employers and service providers are increasingly reliant on pre-hiring communications. The current work highlights the provider's reply speed as a key property of such communications that is controlled by the provider and that affects both the impression formed by the employer and the likelihood of a transaction (i.e., hiring likelihood). Importantly, these messages do not have to be extensive for reply speed to matter; we consistently find benefits for reply speed in simple messages that discuss availability and accept a job. Faster replies achieve these benefits because they convey greater future responsiveness, which we show to be an important predictor of other positive worker perceptions. These benefits of reply speed even appear when there are other positive signals of future responsiveness, such as quality ratings or responsive message text. Although other signals may (sensibly) be more important to employers than reply speed alone, the speed with which one responds to a message is an inherent feature of pre-hiring communication and therefore seems likely to affect a vast number of hiring decisions. As such, our findings have key practical and theoretical implications for service providers, hiring managers, and market designers. When deciding how to respond to the next exciting job opportunity in your life, our results indicate that it is better to be speedy than sorry.

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Appendix A. Additional Data for Study 1

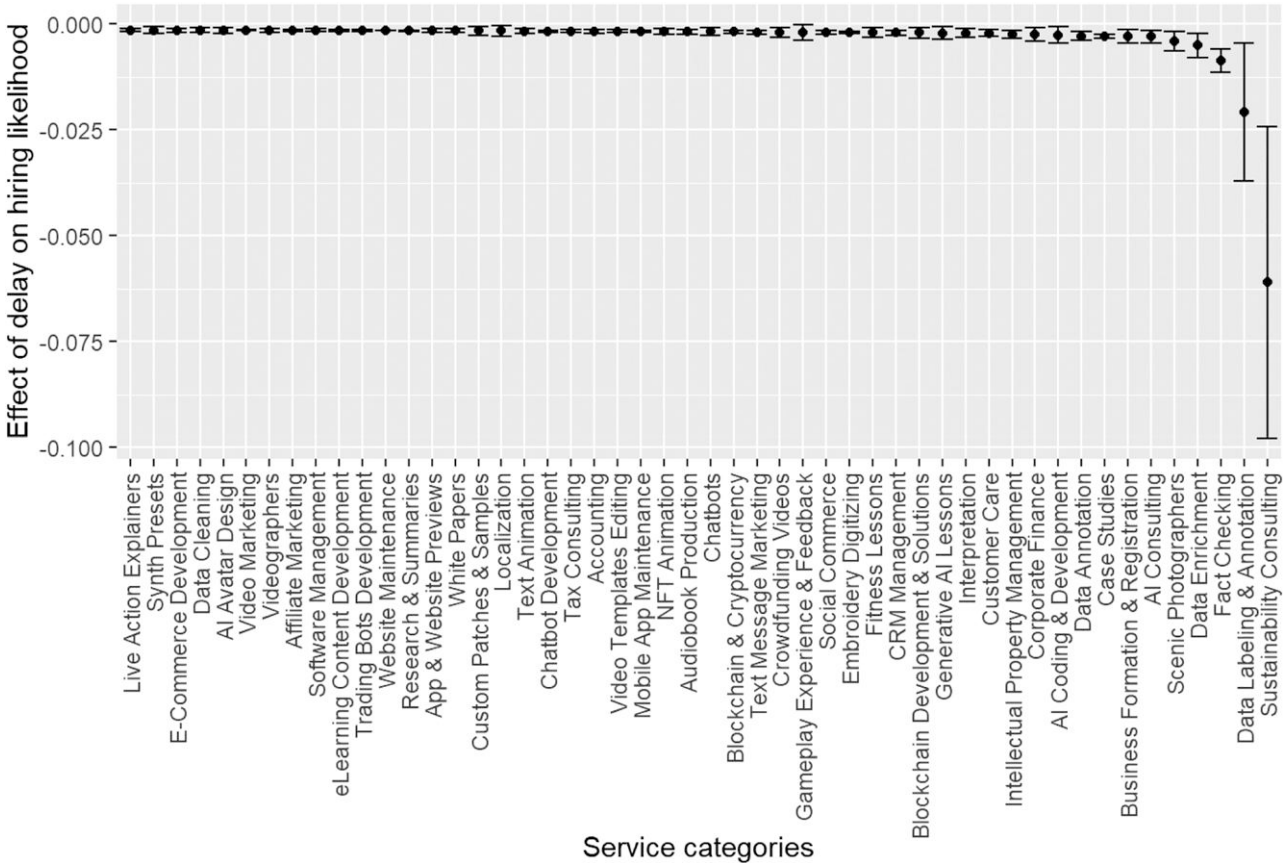
Table A.1. Variables and Descriptions

Variable type	Variable name	Description
Independent variable	<i>time_to_first_response</i>	Number of minutes until initial response
Independent variable	<i>time_to_response_buckets</i>	Response time, categorized
Dependent variable	<i>is_buyer_converted</i>	Was a purchase made (yes/no)
Fixed effect	<i>category</i>	A broad set of service type
Fixed effect	<i>sub_category</i>	Service-type category (see the Online Appendix)
Fixed effect	<i>Fib</i>	Fiverr for Business indicator (yes/no)

Table A.1. (Continued)

Variable type	Variable name	Description
Control	<i>platform</i>	Web, web app, or app
Control	<i>seller_public_rating_30d_avg</i>	Seller rating (0–100 scale; calculated by multiplying star rating by 20 and averaging across all ratings)
Control	<i>seller_level</i>	Internal seller experience level (four ordinal categories)
Control	<i>seller_quality_group</i>	Internal seller quality level
Control	<i>order_amount</i>	Total price paid
Control	<i>sellers_messaged_on_conv_date</i>	Number of sellers messaged on conversion date
Control	<i>is_ftb</i>	Is buyer a first-time buyer (yes/no)?
Control	<i>is_sbss</i>	Is buyer transacting with a seller they have transacted with in the past (yes/no)?
Control	<i>first_msg_date</i>	Date and time when first message was sent

Figure A.1. Regression Coefficient Value for the Effect of Reply Time on Hiring Decisions by Service Subcategory (Study 1; N = ~11.66 Million)



Notes. Across all service subcategories, providers’ reply delay had a negative effect on their likelihood of being hired. Error bars represent plus or minus the standard error of the mean. CRM, Customer Relationship Management; NFT, Non-Fungible Token; Synth, Synthesizer.

Appendix B. Manipulation Texts

B.1. Pilot Study

B.1.1. Provider. Imagine that you are a professional (provider: photographer/copy editor). You have around five years of experience (taking professional photos for clients, such as headshots and promotional materials for small businesses/doing copyediting and proofreading for clients on business documents, fiction, and nonfiction books).

You typically get clients through your website, which has samples of your work and some positive testimonials and reviews from clients. You have a decent stream of work, but you are always on the lookout for more clients.

On your website, you note that the best way for clients to contact you is by email. You have found in the past that using email helps you to negotiate the best price for your services as everything is clear and in writing.

You have just received an email from a potential client, Jay Smith. In their email, Jay Smith describes their new business and a few things that they would like (*in a photo shoot/to copyedit*) and asks about your availability.

B.1.2. Employer. Imagine that you are starting a new business. You know that before you launch your business, you need (professional photos (headshots and promotional materials)/professional copyediting and proofreading of press releases and materials). You want to hire a (provider: photographer/copy editor) for your new business to make sure it looks professional.

You look up several (*providers*). You are particularly interested in one (*provider*), Jay Smith. Jay Smith has a nice website that has samples of their work and some positive testimonials and reviews from clients. They have around five years of experience (*taking professional photos for clients, such as headshots and promotional materials for small businesses/doing copyediting and proofreading for clients on business documents, fiction, and nonfiction books*).

Jay Smith's website notes that the best way to contact them is by email.

You have just sent an email to Jay Smith. In your email, you describe your new business and a few things that you would like (*in a photo shoot/to copyedit*) and ask about their availability.

B.2. Studies 2 and 4

B.2.1. Caterer Scenario: Studies 2 and 4. Imagine that you are starting a new business, and you need to hire a caterer for several parties that you are planning. Specifically, you would like to find someone who can cater an event in January (i.e., a couple months from now).

You look up caterers on an online platform, and you send messages to several local caterers. In your message, you describe the party timing, location, and number of guests. You ask about the caterers' availability.

B.2.2. Doctor Scenario: Only Study 2. Imagine that you recently moved to a new city, and you need to find a new primary care physician. Specifically, you would like to schedule an annual physical examination for January (i.e., a couple months from now).

You look up doctors on an online healthcare platform, and you send messages to several local doctors. In your message, you describe your preferred timing, location, and recent health. You ask about the doctors' availability.

- In Study 2, participants also saw that the provider, James V., had a star rating of 4.85 (of 5), had a star rating of 4.25 (of 5), or did not see any star rating.

You sent an email to James Vaughn (the caterer/the doctor) at 10 a.m. this morning.

James sends you a response (*within an hour (before 11 a.m.)/at the end of the day (at 5 p.m.)*):

Hello,

Thanks for reaching out.

I can definitely put you on my schedule in January. Always nice to meet a new potential (client/patient). Best, James V.

B.3. Study 3

Imagine that you are starting a new business. You know that before you launch your business, you need professional photos (headshots and promotional materials). You want to hire a photographer for this photo shoot for your new business to make sure that it looks professional.

You look up several photographers. You notice one photographer, Jay Smith. Jay Smith has a nice website and some positive reviews about their work. Jay Smith's website notes that the best way to contact them is by email.

You send an email to Jay Smith in which you describe your new business and a few things that you would like in a photo shoot, and you ask about their availability.

[*After one hour/After two days*], Jay Smith replies to your email. They explain how they work and that they can take your photos in the next couple of weeks.

Appendix C. Measures

Participants rated providers on the following items. Items were rated on seven-point scales from 1 = "not at all" to 7 = "very much." We created composite scores for each variable by averaging the items.

C.1. Expectations of Future Responsiveness (Studies 3 and 4)

- [Target] will really listen to me.
- [Target] will be interested in what I am thinking and feeling.
- [Target] will be understanding.
- [Target] will try to see where I am coming from.
- [Target] will dismiss my concerns too easily (reversed).
- [Target] will not accept my feelings and concerns (reversed).
- [Target] will ignore my side of the story (reversed).
- [Target] will ignore the things that are most important to me (reversed).

C.2. Warmth (Study 3)

- Warm
- Friendly
- Well intentioned
- Considerate

C.3. Competence (Study 3)

- Competent
- Skillful
- Capable
- Intelligent

Endnotes

¹ We note that in our focal context where senders are likely to contact only people they are interested in engaging with (i.e., after "prescreening" respondents based on perceived desirability or status), replies may be less likely to influence such attributes.

² One caveat is that because our analysis focuses on the reply time to the first message sent between the buyer and seller, a repeat buyer in this case must not have communicated with the seller in their first transaction. This is possible because Fiverr enables the purchase of an "off-the-shelf" service without the need to interact

with the provider. Thus, although there was likely a positive prior experience driving the buyer to return to this seller, our observation represents the first communication between the two.

³ The quarter 1 press release is at <https://investors.fiverr.com/news-releases/news-release-details/fiverr-announces-first-quarter-2025-results>.

⁴ In this pilot and all following studies, the pattern and significance of our results remain the same regardless of whether we include controls for participants' gender and age, so we report results without controls for simplicity.

⁵ We also asked senders and responders about their descriptive norms ("When do you expect most [providers] would respond to a similar email?") and their prescriptive norms ("When do you expect [providers] should respond to a similar email?"). We found similar result patterns for these questions as for the main questions.

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