glassdoor ECONOMIC RESEARCH

The Rise of Mobile Devices in Job Search: Challenges and Opportunities

for Employers

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Contents

- 03 EXECUTIVE SUMMARY
- 04 I. INTRODUCTION
- 05 II. WHO ARE MOBILE JOB SEEKERS
- 17 III. THE CHALLENGES FACED BY MOBILE JOB SEEKERS
- 25 IV. TIPS FOR NAVIGATING THE WORLD OF MOBILE JOB SEARCH
- 28 END NOTES

Executive Summary

People are increasingly using their phones for everyday tasks, including looking for jobs. In this study, we use Glassdoor's unique data to understand how mobile usage is evolving for job seekers in the U.S. and what challenges job seekers face while using their phones during the job search and application process.

- Mobile usage by job seekers in the U.S. is already very common. While this trend is not limited to a single segment of the population, there are some clear demographic patterns.
 - 58 percent of Glassdoor users today are looking for jobs on their phones.
 - Mid-career workers—35-44 years old—are the most likely to look for jobs on their mobile phones.
 - Mobile job seekers tend to be women and less-educated workers.
 - While blue-collar job seekers are more likely to use their phones to look for jobs, every occupation, industry and U.S. metro area has a high share of mobile job seekers.
- The application process is significantly more difficult for mobile job seekers. Mobile job seekers, on average, successfully complete 53 percent fewer applications and take 80 percent longer to complete each application, hindering workers who rely on their phones to search for jobs.

- Lower-income workers have more difficult job application processes. Lower-income workers complete job applications at lower rates and take longer to complete each application on both mobile and desktop. Employers hiring for low-income jobs often try to filter applicants by asking them to answer many questions or self-report their skills and education. This shifts the time burden of applying to jobs disproportionately onto lower-income workers and those applying to jobs from mobile phones.
- Applicant pools shrink as job applications take longer to complete. Reducing the time needed to complete an online job application by 10 percent is associated with a 2.3 percent increase in job applications from mobile job seekers and a 1.5 percent increase in applications from desktop job seekers. Employers with difficult mobile job application processes are likely deterring many potential applicants.
- Mobile-friendly application experiences attract applicants. Promoting a job opening as mobile-friendly can increase the number of job applicants by 11.6 percent at the expense of jobs from other employers that aren't mobile-friendly. In a tight labor market, having a mobile-friendly job application process can be a powerful way for employers to compete for talent.

Introduction

Mobile device usage is on the rise. Since the launch of the first iPhone in 2007, smartphone ownership has exploded to 77 percent of U.S. adults, according to a 2018 survey by the Pew Research Center.¹ As technology continues to advance and smartphone adoption increases, tasks we used to rely on our computers for are now possible and, in many cases, easier to complete on our phones.

Job seekers, in particular, are more likely than ever to use their phones for the job search process from searching for jobs to researching companies to reading interview tips. Today, 58 percent of Glassdoor users are looking for jobs on their phones, and, according to a Glassdoor survey, 35 percent of job seekers say that they would actually prefer to apply to jobs from their phones.²

Despite the growing share of the job seeker population that prefers using their phones, many employers are still relying on legacy applicant tracking systems (ATSs) or application forms that were designed with desktop users in mind. This misalignment is costly both to job seekers who can be discouraged by cumbersome applications and to employers that are competing for workers in an increasingly mobile-oriented labor market. Who are these mobile job seekers? How costly are inefficiencies in reaching them? And lastly, what can both employers and job seekers do to accommodate these evolving trends? In this study, we analyze these questions using a large dataset of job search activity on Glassdoor.

As one of the world's largest jobs and recruiting sites, Glassdoor has a unique ability to analyze real-time trends in job search. For this study, we analyzed a sample of 12 million job seekers from April to October 2018 for their demographic, job search and application patterns. Using this data, we provide a detailed view of who is looking for and applying to jobs from their mobile phones, what jobs they're most interested in and how applicant pools for employers are impacted by the ease—or difficulty—of their online job application process.

The remainder of this study is organized as follows. In Section II, we explore who mobile job seekers are and examine their demographic characteristics and backgrounds. In Section III, we discuss examples of the difficulties mobile users face in the job search process and how employers may be missing out on candidates due to unwieldy job application processes. In Section IV, we conclude by summarizing lessons for job seekers as well as employers interested in staying competitive amongst the growing share of mobile job seekers in today's labor market.

II. Who Are Mobile Job Seekers?

Who are the people applying to jobs from their mobile phones? Are mobile job seekers primarily millennials and tech workers? In this section, we create a data-driven profile of mobile job seekers to address these questions. We describe who these job seekers are and what types of jobs they are interested in compared to traditional online job seekers that use desktop computers.

While some demographic groups are more likely to use their mobile devices to search for and apply to jobs, it is important to note that people from nearly every corner of the labor market we examined rely heavily on their mobile devices.All employers should have mobile devices in mind when considering how to expand their applicant pools in an evolving labor market.

About the Data

For this study, we identified a set of 12 million U.S. job seekers active on Glassdoor in August 2018 and analyzed their demographics and job search patterns. We gathered basic demographic information about these job seekers such as gender, age and education. We also gathered basic information about the jobs that users were interested in, including the job location, job title and industry.

Additionally, we further analyzed a smaller set of 6 million U.S. job seekers active on Glassdoor from April 2018 through June 2018 and their application activity. For these users, we identified whether they completed their application and estimated how long the application process took to complete. We also analyzed the job search activity of 700,000 U.S. users who participated in an A/B test on Glassdoor that experimentally highlighted mobile-friendly job postings for mobile job seekers.

We define a mobile (or desktop) job seeker as a visitor to Glassdoor using their mobile phone (or desktop computer) to look for jobs. Phones and tablets together are considered "mobile" devices unless otherwise specified.

Who Is the Mobile Job Seeker?

1. Mid-Career Workers Most Likely to Search for Jobs from Mobile Phones

Much has been made of younger generations' affinity for smartphones and technology. However, the relationship between age and mobile usage in searching for jobs is not as straightforward as one would imagine. Figure 1 shows that use of mobile devices, including phones and tablets, in job search actually peaks among the 35-44 year old age group at 55 percent, trailing off to a low of 44 percent on both ends of the age spectrum—18-24 and 65+. Gen Z and millennial workers use their phones less than their Gen X counterparts when it comes to searching for jobs.

Another generational divide can be seen in mobile device preference: while younger job seekers are more likely to use their mobile phones, older generations have much higher tablet usage. This is likely because tablets such as iPads have larger screens and easier-to-use interfaces which are considered more accessible.

Mobile adoption for job seekers is actually highest for workers aged 35-44 years old in the prime of their careers. As such, mobile usage should not be dismissed as a unique characteristic of younger job seekers. Instead, a significant share of workers in all age groups in the American workforce rely on mobile devices as a core tool to connect with employers online.



Figure 1: 35-44 Year Old Job Seekers Are Most Likely to Search for Jobs from Mobile Phones

2. Mobile Job Seekers More Likely to be Women

While the differences are small, mobile job seekers are disproportionately women, who comprise 52 percent of mobile job seekers but only 46 percent of desktop job seekers. This is not the result of occupational sorting—that is, it's not just because women and men tend to work in different types of jobs. Even when controlling for differences in occupations between women and men, a small gap persists.

While a single-digit percentage point gap in mobile phone usage between men and women may not seem important, small differences can accumulate over large numbers of job applicants resulting in systemic and persistent biases, particularly among larger employers. For employers mindful of gender disparities in their applicant pipeline, being aware of this difference in mobile device usage is important.







3. Mobile Job Search More Common for Less Educated Workers

Mobile technology has become ubiquitous enough that education is no barrier to frequent and significant mobile phone use. On the contrary, Figure 3 shows that the share of job seekers using their phones to search for and apply to jobs actually decreases as education increases. Fifty six percent of job seekers with a high school education used mobile devices to search for jobs while 42 percent of job seekers with a doctoral degree used their mobile devices. This runs counter to the common perception that only the most college-educated and tech-savvy workers are likely to search for and apply to jobs from their mobile phones. This effect is likely influenced by income disparities between higheducation and low-education populations. Lower income households are more likely to rely on mobile devices as a substitute for personal computers. According to a Pew Research Center survey, 22 percent of households with a high school education do not have broadband Internet at home but have smartphone access. This drops to 10 percent for households with a college education or higher.³

Education level, however, is not just related to income—it often indicates what types of jobs workers have. In the next section, we turn our focus from mobile job seekers onto the jobs that attract them.



Figure 3: Mobile Usage More Common for Less Educated Workers

What Jobs Attract Mobile Job Seekers?

The previous section disabused us of the notion that mobile job seekers are primarily the youngest or most highly educated workers. Another common mistaken stereotype is that mobile users tend to be workers employed in technical or high-income occupations—such as software engineers in Silicon Valley or financial professionals in New York City. In fact, data from Glassdoor shows that the users who rely most on mobile devices for their job search are from industries, occupations and regions where the nature of their work requires time away from a computer. These types of jobs tend to be blue-collar jobs.

In this section, we'll explore the types of jobs that mobile job seekers are interested in but also demonstrate that mobile usage is still high across all types of jobs.



1. Industries Where Mobile Job Seekers Matter Most

Mobile usage varies dramatically across industries from food services, where 64.9 percent of job seekers use mobile devices, to media, where only 43.2 percent of job seekers are mobile.

Other industries with high concentrations of mobile job seekers include transportation (63.1 percent) and retail (60.2 percent). Conversely, industries with the least mobile job seekers include accounting & legal (47.2 percent) and biotech & pharmaceuticals (47.3 percent).

In Figure 4, we show each industry's share of mobile job seekers with the industries with the highest share of mobile job seekers at the top and those with the lowest share at the bottom. Despite the wide differences in usage rates from the most to least mobileoriented industries, it's significant to note that even media—the industry with the lowest percentage of mobile job seekers—still has 43 percent of job seekers searching for jobs from their mobile devices. Clearly, there is no industry today in which employers can ignore the prevalence of mobile job seekers.

Figure 4: Mobile Usage Varies Widely Across Industries

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	Restaurants, Bars & Food Services	64.9%		35.1%	
	Transportation & Logistics	63.1%		36.9%	
	Retail	60.2%		39.8%	
	Health Care	59.1%		40.9%	
Consumer Services		58.9%		41.1%	
		56.3%		43.7%	
	Mining & Metals	55.7%		44.3%	
	Travel & Tourism	55.6%		44.4%	
	Government	54.2%		45.8%	
	Manufacturing	53.8%		46.2%	
	Business Services	53.2%		46.8%	
<u>~</u>	Oil, Gas, Energy & Utilities	53.1%		46.9%	
	Real Estate	52.7%		47.3%	
Ĭ	Arts, Entertainment & Recreation	52.7%		47.3%	
	Insurance	52.5%		47.5%	
	Agriculture & Forestry	52.0%		48.0%	
	Telecommunications	51.0%		49.0%	
	Non-Profit	50.9%		49.1%	
	Finance	50.7%		49.3%	
	Education	50.6%		49.4%	
	Aerospace & Defense	48.7%	5	51.3%	
	Information Technology	47.8%	5	2.2%	
	Biotech & Pharmaceuticals	47.3%	5.	2.7%	
	Accounting & Legal	47.2%	5	2.8%	
	Media	43.2%	56.	.8%	
	 0%	20%	60%	80%	100%
	0%	20% 40%		0070	100%
		% of Jo	D Seekers		

Desktop Mobile

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The difference in mobile usage rates likely reflects the differences in the nature of work in these industries. For example, drivers in the transportation industry are unlikely to be at a desktop computer or even have access to one while they're on the road. Similarly, at their jobs, nurses and other healthcare workers spend much of their time on their feet, interacting with patients. By contrast, an accountant or attorney is much more likely to be working at a desk and near a computer.

What this reveals is that employers in some industries have much more at stake when it comes to attracting mobile job seekers and ensuring that their application process is smooth on mobile devices.

2. Desk Jobs Attract Fewer Mobile Job Seekers

When we examine which jobs are most likely to attract mobile or desktop job seekers, we see further evidence that the nature of the work being offered is strongly linked to mobile phone usage for job searching.

Table 1 shows the 20 occupations with the highest share of mobile job seekers. Not surprisingly, jobs where workers spend less time in front of a computer dominate the list. The job with the highest mobile usage was package handler, with 75.4 percent of job seekers using their phones to find these jobs, followed by restaurant manager (75.1 percent), truck driver (73.9 percent) and certified nursing assistant (72.9 percent).

Using the technology behind Glassdoor's <u>Know Your Worth</u> algorithm, we also estimated the salaries for the jobs that mobile job seekers are interested in. Most of the jobs on the list fall under the national median salary of \$52,748 per year as reported by Glassdoor's March 2019 Local Pay Reports.⁴ However, healthcare and managerial positions tend to be paid higher with registered nurse and store manager both making over \$50,000 per year. Table 1: 20 Occupations with Highest Share of Mobile Job Seekers

Rank	Occupation	% Mobile	Salary Estimate
1	Package Handler	75.4%	\$26,184
2	Restaurant Manager	75.1%	\$49,751
3	Truck Driver	73.9%	\$32,911
4	Certified Nursing Assistant	72.9%	\$27,952
5	Material Handler	72.8%	\$31,162
6	Housekeeper	72.8%	\$23,888
7	Order Selector	72.2%	\$31,046
8	Service Technician	72.2%	\$36,480
9	Licensed Practical Nurse	71.9%	\$45,264
10	Delivery Driver	71.5%	\$31,702
11	Maintenance Technician	68.4%	\$42,048
12	Cashier	67.5%	\$22,696
13	Team Member	67.2%	\$21,844
14	Registered Nurse	66.9%	\$68,237
15	Customer Service Representative	66.8%	\$32,008
16	Store Manager	66.3%	\$50,432
17	Sales Associate	65.4%	\$45,000
18	Security Officer	65.1%	\$28,568
19	Medical Assistant	63.9%	\$34,592
20	Pharmacy Technician	63.6%	\$32,250

Rank	Occupation	% Mobile	Salary Estimate
1	Software Developer	35.3%	\$80,769
2	Web Developer	36.6%	\$76,416
3	Front End Developer	38.1%	\$78,784
4	Software Engineer	38.4%	\$109,174
5	Data Scientist	38.7%	\$130,000
6	Research Scientist	38.8%	\$94,530
7	Research Associate	39.4%	\$55,865
8	QA Engineer	40.6%	\$89,137
9	Data Analyst	41.4%	\$70,312
10	Digital Marketer	41.8%	\$65,986
11	Systems Engineer	42.0%	\$93,924
12	Creative Manager	42.2%	\$124,064
13	IT Manager	42.8%	\$119,003
14	Solutions Architect	43.1%	\$136,468
15	Technical Writer	43.4%	\$71,213
16	Graphic Designer	43.7%	\$53,297
17	Network Engineer	43.9%	\$109,870
18	Mechanical Engineer	44.1%	\$79,026
19	Marketing Coordinator	44.1%	\$50,750
20	Communications Manager	44.1%	\$84,389

Table 2: 20 Occupations with Lowest Share of Mobile Job Seekers

Source: Glassdoor Economic Research (Glassdoor.com/research).

Conversely, Table 2 shows the bottom 20 occupations by mobile job seeker share. While Table 1 was dominated by jobs where desktop usage at work is uncommon, the jobs in Table 2 show the opposite trend.

The jobs with the lowest percentage of mobile job seekers are software developer (35.3 percent), web developer (36.6 percent) and front-end developer (38.1 percent). Those jobs are highly technical roles that involve programming at a computer; that is reflected in several other positions on the list as well, including data scientist (38.7 percent), research scientist (38.8 percent) and systems engineer (42.0 percent).

However, the list is not limited to programming roles—other technical roles like IT manager (42.8 percent) and mechanical engineer (44.1 percent) are also featured high on the list. Similarly, other knowledge worker roles like digital marketer (41.8 percent), technical writer (43.4 percent) and communications manager (44.1 percent) also appear prominently.

The roles for which job seekers are least likely to use a mobile phone also tend to have high salaries, well above the national median salary, with some roles like data scientist or solutions architect paying twice as much as the national median salary.



3. Cities With More Blue-Collar Industries Have More Mobile Job Seekers

Cities have varying concentrations of occupations and industries. If occupation and industry predict mobile usage, we would also expect a city's concentration of certain industries to correlate with mobile usage. Indeed, our data shows that certain metropolitan areas across the U.S. have higher or lower proportions of mobile usage based on their local industries.⁵

In Table 3, we show the 10 metro areas with the highest mobile job seeker share, with the highest being Riverside, CA (61.9 percent). The Riverside metro area has more jobs in high mobile share industries like healthcare, retail and transportation, as well as fewer jobs in low mobile share industries like information technology and biotech & pharmaceuticals. The expansion of warehousing and transportation in the Riverside area due to its proximity to West Coast ports and cheaper land prices is also likely a large contributor. Similarly, Orlando, FL (59.9 percent) and Miami-Fort Lauderdale, FL (59.2 percent) appear on the list due to their heavy reliance on the tourism industry.

Table 3: 10 Metros With Highest Share of Mobile Job Seekers

R	lank	Metro	% Mobile
	1	Riverside, CA	61.9%
	2	Orlando, FL	59.9%
	3	San Antonio, TX	59.9%
	4	Miami-Fort Lauderdale, FL	59.2%
	5	Detroit, MI	58.8%
	6	Houston, TX	58.8%
	7	Charlotte, NC	58.3%
	8	Tampa, FL	58.2%
	9	Nashville, TN	57.9%
	10	Atlanta, GA	57.8%

Source: Glassdoor Economic Research (Glassdoor.com/research).

Notes: Top 10 of the 30 largest metros by job seeker population

Table 4 shows the bottom 10 metros by mobile share, which are dominated by the high-technology hubs San Jose, CA (44 percent), San Francisco, CA (46 percent), Seattle, WA (47.4 percent) and Boston, MA (48.6 percent). Other up-andcoming technology hubs like Denver, CO (49.9 percent) and Austin, TX (50.1 percent) also appear, as well as other population centers for high-skill workers like Washington, DC (49.3 percent) and New York City, NY (52.1 percent).

Table 4: 10 Metros With Lowest Share of Mobile Job Seekers

Rank	Metro	% Mobile
1	San Jose, CA	44.0%
2	San Francisco, CA	46.0%
3	Seattle, WA	47.4%
4	Boston, MA	48.6%
5	Washington, DC	49.3%
6	Denver, CO	49.9%
7	Austin, TX	50.1%
8	Portland, OR	50.4%
9	San Diego, CA	50.7%
10	New York City, NY	52.1%

Source: Glassdoor Economic Research (Glassdoor.com/research).

Notes: Bottom 10 of the 30 largest metros by job seeker population

However, are these metro-level differences solely due to different concentrations of industries and occupations? For example, does San Jose have a low mobile share because it is home to many highly-educated technical workers in technology industries, or are there other San Jose-specific factors driving the low mobile share in addition to the prevalence of technology workers?

Table 5 addresses that question. It shows the mobile share by metro for software engineer, a low mobile share job, and sales associate, a high mobile share job. If the differences in local concentrations of occupations were the primary driver, we would expect that both Riverside, CA and San Jose, CA would have the same mobile share for both jobs.

Instead, we find that metro areas that have higher mobile shares also have higher mobile shares even for low mobile occupations. For example, software engineers in Riverside, CA are 45.2 percent mobile whereas software engineers in San Jose, CA are 33.0 percent mobile. Practically, this means that employers must be cognizant of both the mobile share in their local market as well as in the roles they're hiring for—an employer hiring for a low mobile share role cannot afford to ignore mobile job seekers if they're also in a high mobile share metro.

Metro Mobile Usage	Metro	All Jobs	Software Engineer	Sales Associate
	Riverside, CA	61.9%	45.2%	74.8%
	Orlando, FL	59.9%	48.0%	75.6%
	San Antonio, TX	59.9%	38.5%	76.0%
	Miami-Fort Lauderdale, FL	59.2%	40.4%	74.4%
High Mobile Phone Use	Detroit, MI	58.8%	40.8%	73.5%
for Job Search	Houston, TX	58.8%	41.2%	79.3%
	Charlotte, NC	58.3%	43.8%	74.2%
	Tampa, FL	58.2%	41.9%	71.9%
	Nashville, TN	57.9%	39.1%	70.0%
	Atlanta, GA	57.8%	42.4%	74.6%
	New York City, NY	52.1%	34.7%	72.9%
	San Diego, CA	50.7%	38.3%	71.4%
	Portland, OR	50.4%	36.4%	67.5%
	Austin, TX	50.1%	40.0%	73.6%
Low Mobile Phone Use	Denver, CO	49.9%	37.2%	63.5%
for Job Search	Washington, DC	49.3%	36.4%	67.7%
	Boston, MA	48.6%	34.6%	65.8%
	Seattle, WA	47.4%	35.9%	64.2%
	San Francisco, CA	46.0%	32.5%	68.3%
	San Jose, CA	44.0%	33.0%	67.7%

Table 5: Even for the Same Job, Mobile Use for Job Search Varies Widely by City

Source: Glassdoor Economic Research (Glassdoor.com/research).

III. The Challenges Faced by Mobile Job Seekers

In the previous sections, we built a profile of mobile job seekers and established that mobile usage is prevalent across many types of workers and jobs. In this section, we will explore some of the difficulties facing mobile job seekers and make recommendations to alleviate those problems. In particular, we will focus on the process of starting, filling out and submitting applications online.

Anybody who has visited a poorly optimized website from their phone can attest to the frustration it causes. Poor mobile experiences can include text that is too small to read, forms or content running off the screen, buttons that are too small to press and intrusive pop-ups blocking large sections of the page. This can be particularly frustrating for people trying to search for jobs, and is compounded by the fact that many employers still rely on legacy ATSs to handle their application processes. Job seekers are committed to finding a job but are limited by time—as such, they will not hesitate to abandon an application process that is overly complex or difficult, particularly if they have an alternative available. Crucially, the job search context is highly competitive, with employers vying for limited job seeker attention and time. If motivated job seekers are not applying to your jobs, they could be spending their time applying to your competitor's jobs.

To understand the difficulties that mobile job seekers face, we focus on two measurements of the difficulty of an application process—the time it takes to complete an application ("Time to Complete Application") and the percent of applications started that are completed ("Percent of Applications Completed").





Finding 1: Application Difficulty is Higher on Mobile Devices

We start with the unsurprising finding that the application process is substantially more difficult for mobile job seekers than for desktop job seekers.

Mobile job seekers successfully complete applications 53 percent less often and each completed application takes 80 percent longer than for desktop job seekers. Given the inherent difficulty of using mobile devices for tasks such as responding to questions or attaching documents, coupled with the lackluster mobile optimization of some ATSs, it is no surprise that mobile job seekers face a much more difficult time applying to jobs than desktop users. Figure 5: Application Difficulty is Higher on Mobile Devices



Counter-intuitively, we find that lower income jobs have more difficult applications as measured by the amount of time it takes to complete an application.

Figure 5 highlights several examples showing that applications for lower-income jobs like bank tellers, shift managers, order selectors and delivery drivers take much longer to complete, often taking over 15 minutes. Conversely, high-income jobs like product manager, software engineer, business operations and technical recruiter only take 2 to 3 minutes to complete.







This trend is likely due to a combination of the nature of the applicant pool and skill qualifications required for the job. Lowincome jobs often ask applicants to enter information like work history, relevant skills and education that would traditionally be captured in a resume. This may be because these jobs have a higher proportion of applicants without a traditional resume or applicants' resumes may not contain the relevant information employers are looking for.

Additionally, there are more available workers for lower income jobs, which encourages employers to be more selective and add additional filters in the application process to constrain their applicant pool to the most interested candidates. Conversely, high-income roles generally require less common skills, so qualified talent is often in short supply. As salary increases, the cost of leaving a role open increases and recruiters become more willing to substitute low-cost evaluation methods like automated resume filters for more costly but accurate methods like practical interviews in order to present as many qualified candidates as possible. Additionally, the application process can act as a marketing channel for employers to collect information on interested candidates and leave open the possibility of reaching out to them in the future.

There is somewhat of a paradox here in that workers with the most difficult application processes are also much more likely to use their phones to apply for jobs even though the process is more arduous than on desktop. This could be explained by some other factor—for example, workers with lower incomes may be less likely to own a home personal computer or have convenient access to one, but also have a higher need for a new job.

The "Mobile Tax": The Cumulative Effect of Cumbersome Mobile Job Applications on Candidates

The cost of lower application completion rates is clear for employers—lower completion rates mean smaller applicant pools. But it's important to remember that applicant pools are comprised of many individual people. While a one percent difference at the scale of an employer's applicant pool may seem abstract or insignificant, to the candidates in the applicant pool, the impact can be large. For a mobile job seeker, the cost of longer and harder applications can act as an unintentional "mobile tax."

To illustrate the impact of painful or cumbersome mobile job search experiences on job seekers, let's consider a simple example. Suppose there are two typical applicants searching for a business analyst job with a goal of submitting 10 applications per week. David is a desktop user and Molly is a mobile user. Using Glassdoor data, we can estimate their average application completion rate and time to complete an application, as shown in Table 6 below.

Because mobile users complete applications at a lower rate than desktop users, David will need to start 21 applications to reach his goal whereas Molly will need to start 51 to reach the same goal. On top of that, by the end of the week, David will have spent 1 hour, 11 minutes on his job search whereas Molly will have spent over twice as long at 2 hours, 24 minutes.

Table 6: An Example of the "Mobile Tax"

Application Device	David (Desktop)	Molly (Mobile)
Application Goal	10	10
Completion Rate of Started Applications	48%	20%
Started Applications Needed to Reach Goal	21	51
Median Time to Complete Application	4 minutes, 56 seconds	6 minutes, 13 seconds
Median Time Spent on Abandoned Application	2 minutes	2 minutes
Total Time Spent	1 hour, 11 minutes	2 hours, 24 minutes

Source: Glassdoor Economic Research (glassdoor.com/research)

Notes: Time Spent on Abandoned Application is a conservative assumption—a larger value would increase the difference between desktop and mobile users.

This tax has what economists call a "regressive" impact on workers—that is, it is a cost that's felt unequally and penalizes lowest-income job seekers the most. Mobile job seekers tend to be lower income workers so these candidates are spending much more time to submit applications even though the payoff in terms of salary is lower. Additionally, because women are more likely to be mobile job seekers, female candidates are disproportionately subjected to the time costs of searching for jobs from their mobile devices.

It's important for recruiters to keep in mind that even small adjustments to the ease of their mobile job application processes can have an undue impact on individual candidates and the socioeconomic and gender diversity of their candidate pools.

Finding 3: Submitted Applications Decrease as Applications Take Longer to Complete

Our third finding is that there is a negative relationship between the time to complete applications and percent of applications completed. Specifically, as a job seeker has to spend more time on an application, they are more likely to abandon the application process. A lower percentage of applications completed directly translates into a smaller applicant pool.

For this analysis, we calculate the time to complete an application and percent of applications submitted for each unique application process we observe. We assume that each employer will only have one application process for each job title, even if the process varies across jobs.

Figure 7: Impact of 10 Percent Decrease in Time to Complete Application on Applicant Pool



Source: Glassdoor Economic Research (Glassdoor.com/research).

From this data, we can estimate the relationship between time to complete an application and percent of applications completed. In concrete terms, we find that reducing the time it takes to complete your application by 10 percent can increase your applicant pool by 2.3 percent on mobile and 1.5 percent on desktop.⁶

Finding 4: Mobile-Friendly Jobs Attract More Applicants

How much do applicants care about or notice differences in the mobile-friendliness of applications? It could be argued that users are not particularly cognizant of these differences and so the risk of driving applicants to competitors is low.

To answer this question, we present the results of an A/B test Glassdoor ran to understand how much users care about mobilefriendliness. The test treatment assigned certain job listings visible badges to indicate that the application process was mobile-friendly. These badges were added into Glassdoor's job search experience as a "Mobile Apply" badge appearing directly in the search results and a message reading "Mobile Friendly Apply: It's easy to apply to this job right now on your mobile device." above the job description. For an example of the treatment, see Figure 8 below. The control treatment was Glassdoor's default search experience and did not include these badges.

Figure 8: Example of Mobile-Friendly Treatment



In the test, our key metric was the number of applications started, measured by the number of clicks on the "Apply Now" button. We found that while the total number of started applications did not change substantially, the share of started applications going to mobile-friendly jobs increased significantly at the expense of nonmobile-friendly jobs, which in turn experienced a slight decrease.

In Figure 9, we report the results showing that jobs eligible for the mobile-friendly signal saw a 11.6 percent increase (p=0.00) in application starts in the test treatment vs. control. Conversely, jobs ineligible for the signal saw a 2.3 percent decrease (p=0.09) in application starts, though the decrease was not statistically significant.⁷ Specifically, highlighting jobs with mobile-friendly application processes increased the number of applications started to those job listings by 11.6 percent at the expense of other jobs.

This test offers strong evidence of the zero-sum nature of job seeker behavior. As job boards, recruiting sites and employers adapt to the growing population of mobile job seekers, they will have to develop and promote mobile-friendly features, forcing employers to continually improve their job application experience in order to stay competitive. While this race-to-the-top will benefit job seekers, employers that fail to keep up risk being left behind, particularly in the race to attract more socioeconomic- and genderdiverse applicant pools. Figure 9: Mobile-Friendly Jobs Attract Applicants Away From Other Jobs



IV. Tips for Navigating the World of Mobile Job Search

Recommendations for Employers and Job Seekers

We conclude by offering recommendations for employers and job seekers based on our findings. For employers, considering the cost imposed on mobile job seekers and how that impacts your recruiting pipeline is crucial.

- Understand your audience Are you missing out on mobile job seekers in your applicant pool? Which of the roles or locations you're hiring for attract many mobile job seekers? Are you trying to expand your applicant pool to reach nontraditional or underrepresented audiences?
- Keep it short A lengthy and difficult application can be a deterrent to applicants. Reducing the time it takes to complete your application by 10 percent can increase your applicant pool by 2.3 percent for mobile job seekers.
- Test it yourself Approach the problem with an experimental and open-minded perspective. Try to apply using your phone. Test different solutions to see which ones work for your situation. When choosing an ATS partner, consider one that emphasizes mobile-friendliness.

For job seekers using their mobile phones, it is important to find ways to more efficiently explore and apply to jobs.

- **Come back later** Saving jobs, emailing them to yourself or setting reminders to apply to jobs later when you're in front of a computer can reduce frustration and save time.
- Ensure easy access Ensure you have quick access to your application materials. Save your resume to your phone as a file or in a cloud service like Google Drive or Dropbox.
- Use integrated solutions Taking advantage of integrated application methods like Glassdoor's Easy Apply can speed up the application process by giving you access to the same tools and files you've already used to apply to other jobs.

Conclusion

As job seekers rely more on their mobile devices to research and apply to jobs, employers must adapt to the quickly changing labor market. In this study, we analyzed Glassdoor data to understand the demographic, job search and application patterns of mobile job seekers to arm employers with new insights about these candidates. In our analysis, we highlighted three key results.

First, over half of job seekers are using mobile devices in their job search. Usage is not limited to younger generations—job seekers across all age groups are increasingly relying on mobile devices, with 35-44 year olds having the most usage. And while blue-collar workers are more mobile-oriented, all occupations, industries and metro areas have significant populations using their mobile devices to search for jobs.

Second, the online application process is significantly more difficult for mobile job seekers. Mobile job seekers are half as likely as desktop job seekers to successfully complete an application after starting it and spend 80 percent more time completing it. Compounding the issue, many jobs that attract mobile users already face lengthier applications.

Third, job seekers are sensitive to efforts to make applications more mobile-friendly. We provide empirical evidence that reducing the time to complete an application by 10 percent is associated with a 2.3 percent increase in mobile applicant pools and a 1.5 percent increase in desktop applicant pools. Additionally, promoting a job as mobile-friendly increases the number of applications started for that job by 11.6 percent by attracting applicants away from other jobs.

In an increasingly tight labor market, employers are competing intensely for limited applicant attention and time. Understanding the populations that feed employers' applicant pools and further enabling job seekers through user-friendly technology will be critical to attracting the most and best applicants.

End Notes

1. "Mobile Fact Sheet". Pew Research Center. Available at http://www. pewinternet.org/fact-sheet/mobile/.

2. Internal Glassdoor survey, conducted July 2018.

3. "Mobile Fact Sheet". Pew Research Center. Available at http://www. pewinternet.org/fact-sheet/mobile/.

4. "Local Pay Reports: Pay Growth Rebounds to 1.4 Percent in March". Daniel Zhao, Glassdoor. Available at https://www.glassdoor.com/research/march-2019-local-pay-reports/

5. "Metro" is a metropolitan area based on the U.S. Census Bureau's core based statistical areas (CBSAs). They are defined as large cities with at least 10,000 residents as well as nearby areas that are socially and economically linked.

6. Calculated using best fit of linear regression on log-log transformed data. Significant at p<0.01.

7. Full details on the test results are available from the author upon request.

About Glassdoor

<u>Glassdoor</u> combines all the latest jobs with millions of reviews and insights to make it easy for people to find a job that is uniquely right for them. The company is on a mission to help people everywhere find a job and company they love. In pursuit of this mission, Glassdoor helps employers hire truly informed candidates at scale through effective recruiting solutions like job advertising and employer branding products. Launched in 2008, Glassdoor now has reviews and insights for more than 900,000 companies located in more than 190 countries. For more information, visit glassdoor.com.

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