



Remote-Ready?

How Low-Income Older Workers Might Gain From and Contribute to Emerging Remote Job Opportunities

AT A GLANCE

Low-income older workers have largely been left out of the dramatic shift toward remote work, potentially cutting off valuable opportunities for greater productivity, flexibility, and economic advancement. This paper explores how to make remote work more accessible to low-income older workers as part of the new economic landscape evolving due to the COVID-19 pandemic.

NOVEMBER 2021

AUTHORS

Nate Anderson
Senior Director, JFF

Kate Bramson
Founder and Principal, **Kate Bramson, LLC**

Jacqueline Gonzalez
Senior Program Manager, JFF

Kathy Mannes
Vice President, JFF

Felicia Sullivan
Associate Research Director, JFF

Acknowledgments

The authors would like to thank AARP Foundation for providing the funds that enabled JFF to conduct the research and develop the content for this report. We're also grateful to AARP Foundation staff for their support and feedback.

JFF also thanks the team of JFF researchers, content experts, and other staff members who contributed to this report, including Raymond Barbosa and Sara Lamback for their labor market information insights, Lisa Soricone for helping to shape the concept and research approach, Nicole Johnson for her project support, and Carol Gerwin, Ali Walz, and other members of the communications team for editorial support and design. Additionally, JFF would like to thank Peggy Walton for editorial review and assistance.



About JFF

JFF is a national nonprofit that drives transformation in the American workforce and education systems. For nearly 40 years, JFF has led the way in designing innovative and scalable solutions that create access to economic advancement for all. www.jff.org



About AARP Foundation

AARP is a nonprofit, nonpartisan organization that empowers people to choose how they live as they age.

Table of Contents

Introduction	3
Defining Our Terms.....	5
Section 1: The Remote Work Landscape.....	6
Low-Wage Work Is Rarely Remote.....	6
Remote Work Overall Is Growing.....	6
Skills In Demand in the Remote Work Labor Market	8
In-Demand Skills Identified in Online Job Postings.....	10
Section 2: Low-Income Older Workers	12
Older Workers and Low-Income Workers Hit Hard by Pandemic	12
Identifying Sectors With High Representation of Low-Income Older Workers Affected by COVID-19	13
Section 3: Opportunities For Low-Income Older Workers In The Remote Work Labor Market.....	17
Low-Income Older Workers Would Benefit From Remote Work.....	17
Employers Would Benefit From Low-Income Older Workers in Their Remote Workforces.....	17
Job Categories That May Offer Remote Work Opportunities for Low-Income Older Workers.....	18
Potential Barriers That Could Prevent Low-Income Older Workers From Accessing Remote Work.....	23
Section 4: Much Remains Unknown.....	26
Section 5: Recommendations	27
Conclusion.....	29
Endnotes	31

Introduction

Remote work grew dramatically during the first months of the COVID-19 pandemic, reaching the highest levels yet seen during a 20-year shift away from in-person full-time employment in the United States. This new workforce dynamic was not optional for most workers; their offices closed to meet public health guidelines. Nearly a year and a half later, many companies have reopened and offer remote work as a real choice—providing a host of flexible employment opportunities to many people who can't access a central workplace or prefer not to work there. Yet this option is not equally available for all workers, especially people in low-wage jobs. Early research on the impact of the pandemic suggests that there are significant disparities between the prevalence of remote work opportunities for lower-income workers versus higher-income workers.¹

Although remote work is currently far more available to people in higher-income positions, it's important to ask whether these new opportunities can be made accessible for people in lower-income positions—especially low-income older workers. This population, which we believe has many of the skills and attributes needed to succeed in remote work—and is capable of learning more—has so far largely been an afterthought to employers developing talent strategies for the recovering economy.

This paper explores how remote work might be made more accessible for low-income older workers as part of the new economic landscape—and how these opportunities may promote these individuals' economic advancement and expand employer talent pipelines. We offer these ideas based on research about low-income workers and older workers and the fact that there is more to uncover about workers who have both characteristics and the remote jobs that might be available to them. We also root our argument in the belief that low-income older workers can play a valuable role in our ever-evolving economic future. We focus on low-income older workers for three reasons: This group (1) was hardest hit by the COVID-19 recession, (2) faces considerable challenges to finding and keeping employment in general, and (3) has so far been largely left behind by transitions to remote work.

To make this case, we show that low-income older workers were disproportionately affected by pandemic-related job cuts and are having a hard time getting back into the workforce. In April 2020, workers with a high school degree but no postsecondary credential—an education level closely associated with low-wage work and low-income households—had more than double the unemployment rate of workers with a bachelor's degree.² Further, workers 55 and older were 17 percent more likely to lose their jobs in the first six months of the pandemic than were workers a few years younger.³ By June of 2021, it's estimated that 1.7M workers 50 and older had left the labor market entirely.⁴ And yet, despite these sobering statistics, older workers will continue to

make up a significant part of the U.S. labor market moving forward. By 2026 almost one-quarter of the workforce will be over the age of 55, according to one estimate.⁵ Without question, this population will continue to make up a significant portion of the labor market post-recession and offer a source of much-needed talent as employers look to grow.

Notably, the challenges to positioning this population for remote work opportunities include the barriers traditionally faced by older workers. These include employers who allow ageism to shape hiring practices and make assumptions about older workers' career goals, along with widespread misinformation about older workers and skill gaps. Generally speaking, older workers who want to work are less likely to be employed the older they get.⁶ Lower-income workers face unique challenges, including accessing affordable housing, health care, and career advancement opportunities. They typically have lower levels of educational attainment. Being both older and lower-income can compound the effects of these challenges on unemployment and reemployment, including remote work opportunities. This is particularly true for lower-income, older workers of color and lower-income, older women of all racial backgrounds.

Just because low-income older workers have yet to see the benefits of the transition to a remote work economy doesn't mean this needs to remain the status quo. Through this paper, JFF is exploring what we know—and don't know—about low-income older workers and remote work and how we might jump-start efforts to build a more inclusive and valuable remote work economy.

Our research recognizes that low-income older workers need to be positioned both for a workplace featuring remote job opportunities and for high-quality jobs within the changing ecosystem. Despite the fact that remote work is a constantly evolving form of employment, much of the work to define high-quality work should apply in a remote work setting as well. This paper attempts, therefore, to address remote work possibilities in the context of high-quality jobs and careers as much as possible.

Looking to the future, the paper explores many of the unknowns about remote work that may shape the landscape, particularly in light of the lifting of most pandemic-related public health guidelines in the United States. We explore the targeted efforts by employers, education and training providers, and public workforce development entities that will be required. We offer three suggestions for pilot efforts to test strategies that might best position low-income older workers for the remote-worker marketplace while engaging employers and/or education and training providers to support this valuable population.

Defining Our Terms

Who Are Low-Income Older Workers?

This paper defines “older workers” as people ages 50 and over, to align with AARP Foundation’s focus. The paper additionally defines workers with “low incomes” as people earning less than \$15 per hour or \$30,000 per year.

JFF recognizes that neither term—and neither definition—is ideal. Language matters, and neither one captures the variety of individual experiences. “Low income,” for example, is defined in different ways by different sources. It also does not account for vast differences in the cost of living in different parts of the country.

In some cases, the research used in this paper does not fully align with these definitions, or it pertains only to older workers—or only to workers earning a low income—as opposed to people who meet both criteria. Similarly, the federal economic and workforce data cited in this paper do not align with our use of the term “older.” Most commonly, federal age data are divided into cohorts, including ages 45 to 54, ages 55 to 64, and ages 65 and over. Federal data in this paper refer to people ages 65 and over. Despite these limitations, we believe that we have enough preliminary information to infer important lessons about the experiences of workers 50 and older who make \$15 an hour or less.

Do Low-Income Workers Have ‘Low’ Skills?

Earning a low income is often equated with having low skills. In the broadest sense, this is inaccurate. Low-income people have a multitude of skills that they use in the context of their work and lives every day. However, the phrase “low skill” is also used to mean lower levels of formal education, especially postsecondary education. Statistically speaking, this is accurate; lower-income people typically have less formal education than higher earning individuals. This paper uses the phrase “low skill” to refer to individuals with lower levels of educational attainment.

Section 1: The Remote Work Landscape

Remote work has become a viable and necessary option during the pandemic, and now employers and others say it's here to stay.⁷ Recently, as the economy has begun to recover, we've seen a surprising trend that could help low-income older workers, based not just on record unemployment but on record job vacancies. The lead article in *The New York Times* on June 6, 2021, pointed out that many employers are being more flexible in order to draw people back to work: "Up and down the wage scale, companies are becoming more willing to pay a little more, to train workers, to take chances on people without traditional qualifications, and to show greater flexibility in where and how people work."⁸ All of these factors may make it easier for low-income older workers to find their way back into the labor market and even into remote jobs.

Low-Wage Work Is Rarely Remote

In the brief history of remote work, low-wage jobs typically have not been part of the work-from-home wave, and remote work during the pandemic was no exception. Early research on the pandemic's impact suggests that much of the initial transition to remote work arrangements were predominantly available to people with higher-wage jobs, including STEM professionals, health professionals, and managers.⁹ A decade ago, remote work—more frequently called teleworking or telecommuting at that time—was often considered a privilege reserved for more-tenured, higher-wage employees. By 2015, research showed that telecommuters were more highly educated, on average, than other employees, with 53 percent holding a bachelor's degree.¹⁰

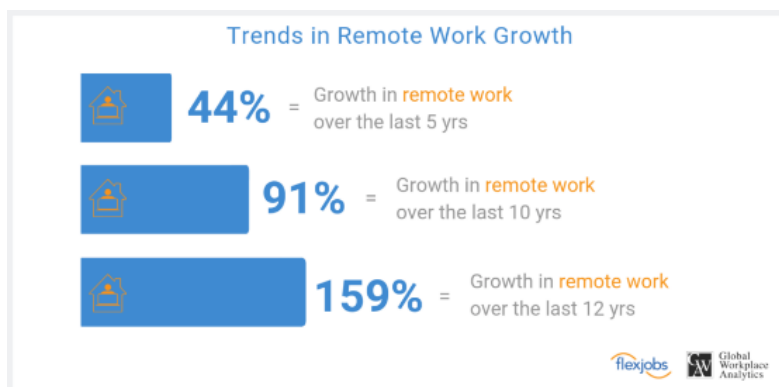
And while many lower-wage jobs have not yet become remote-friendly, that doesn't mean they can't become remote-friendly. Some, like business administration roles, are already fairly easy to convert to work-from-home positions, while others, like those in I.T., sales, and even health care, are remote-possible with changes in work arrangements, technology, and training. Just because most low-wage jobs haven't yet transitioned to being remote-friendly doesn't mean that they won't, and we want to be ready when they do.

Remote Work Overall Is Growing

Remote work demonstrated consistent growth between 2005 and 2017, as the number of U.S. workers who principally worked from home at least half time increased 159 percent (*see Figure 1*).¹¹

Figure 1. Trends in Remote Work Growth, 2005-2017

All percentages in the table show the growth of remote work through the year 2017.



Source: Brie Weiler Reynolds, “159% Increase in Remote Work Since 2005: FlexJobs & Global Workplace Analytics Report,” FlexJobs, accessed June 17, 2021, <https://www.flexjobs.com/blog/post/flexjobs-gwa-report-remote-growth>.

In 2020, the pandemic forced millions of people who had never worked from home before to do so. By one estimate, as of the first week in April 2020, roughly half the workers in the United States were working from home, a jump of about 35 percent from just a few weeks earlier.¹² Recent research and surveys of employers and employees indicate that remote work is here to stay for many, driven by an increased appreciation of its flexibility and newfound confidence in its effectiveness.¹³

A recent survey of employers predicts that by 2025, the number of remote workers will nearly double compared with the pre-pandemic level—reaching nearly 62 million people, accounting for more than a third of the labor market (see Figure 2).¹⁴ With this expansion should come opportunities for all workers.

Figure 2. Survey: Hiring Managers Compare Future Work Arrangements With Prior Remote-Work Levels, December 2020

What percentage of your team/department was, is, or will be working remote at the following points?					
	Before COVID-19	April 2020	Today	12 months from now	Five years from now
Fully remote	12.3%	47.7%	41.8%	26.7%	22.9%
Partially remote	8.9%	12.2%	15%	15.2%	14.6%
Not remote	78.8%	40.1%	43.3%	58.2%	62.5%

Source: Adam Ozimek, *Economist Report: Future Workforce*, Upwork, December 2020, <https://www.upwork.com/press/releases/economist-report-future-workforce>.

Skills In Demand in the Remote Work Labor Market

The skills needed for successful remote work build on essential skills that are key to success in most jobs. People operating from a remote location need to communicate with others, function as part of a team, track time, solve problems, and perform much the same way they would in an office or other workplace setting. In this section, we summarize the key skills that all remote workers, regardless of role or income level, need to thrive in their jobs, based on our review of relevant research.

Digital Skills Are Foundational

Digital skills, such as the ability to locate information online and to effectively adopt new technological platforms, are foundational because of the information and communications technology required in most organizations. Remote employees need to be able to work entirely from home—or to move seamlessly between the office and home—which requires facility with email, chat, and other digital communication tools, as well as the ability to access, edit, and share digital documents. Due to those practical technology needs, companies will increasingly rely on cloud applications and services so their remote workers can be productive and access corporate resources from any location.¹⁵

Below, we identify four skill groupings that are most often referenced in research on remote work, with some additional context on older workers where applicable. All of these skills are necessary in most work environments; however, they are especially relevant for remote work.

Self-Direction, Motivation, and Time Management

Being self-directed and able to manage one's work effectively is key to success in remote work. This includes the ability to set work-related goals, manage projects, and manage one's time. These are important as workers move away from in-person controls, like a supervisor monitoring time spent on a task. A 2019 study found that employees who worked remotely part of the time used self-reward, self-goal setting, and visualization of successful performance on the days they worked at home.¹⁶

This skill set plays to the strengths of older workers. Older people have been found to have higher job satisfaction and a stronger commitment to their organizations than younger workers.¹⁷ The strong work ethic of many older workers is a major advantage as well: Pew survey data of a cross-section of adults found that about 75 percent of respondents believed that older workers have a better work ethic than their younger colleagues.¹⁸ Studies have also found that people who are most comfortable with remote work are most likely to be freelancers, rather than permanent employees of one company, and one academic study found that 49 percent of freelancers were over 50 years of age, and that self-satisfaction for freelancers went up as they

aged.¹⁹ ²⁰ If low-income older workers possess similar skills, including a strong work ethic and self-motivation, they might be well positioned to become freelancers. The explosive growth of remote work due to the pandemic has expanded the geographic boundaries in which such workers could explore freelancing opportunities.

Tech-Enabled Collaboration

Collaborating in a remote environment involves mastering different tools for facilitating group work, collectively codeveloping content, communicating with one another, and managing projects and tasks, both in synchronous and asynchronous contexts. Mastering the complex skill set needed for remote collaboration requires dedicated training—something some companies are beginning to realize. Google, for example, considers collaboration to be such an important skill that it built one of its Grow with Google training modules for remote workers entirely around the topic.²¹

Older workers are more likely than their younger colleagues to *perceive* that they have a technology gap. A wide-ranging 2019 survey of workers in the United States and the United Kingdom showed that 77 percent of U.S. millennials felt they had the tech skills necessary to get a new job, while only 56 percent of U.S. baby boomers felt the same.²² In contrast, only 14 percent of U.S. millennials felt unqualified to get a new job because of their tech skills, compared with 28 percent of U.S. boomers.²³ Addressing this perceived or real technology skill deficit will require employers to ensure that older workers have, and are confident that they have, the skills necessary to use tech-enabled collaboration tools.

Communication

Remote workers need strong proactive communication skills such as the ability to speak up when they have questions, seek clarification on work requests, and voice opinions or suggest ideas. Likewise, remote work impedes people's ability to read the nonverbal cues that are typically perceived during in-person interactions. People tend to instead over-rely on written communication, which, when unclear, can lead to misunderstandings. Strong written communication skills are necessary to overcome this challenge.²⁴ Additionally, communicating clearly and proactively can help employees build trust with their supervisors and managers.²⁵

Older workers tend to have stronger written and nonverbal communication skills than their younger colleagues, in large part because they remember when communication wasn't dominated by email, texting, or social media; they know the value of other, more formal communication, such as handwritten thank-you notes for clients and referral sources.²⁶ And the rapid digitization of the U.S. economy as a whole has meant that workers of all ages have had to develop new and more comprehensive technology skills.²⁷

Adaptability and Flexibility

Remote work requires a high degree of adaptability. This is, in part, driven by the nature of the workspace, where the demands of one’s job can occur at the same time as the demands of home. For workers forced into remote positions as a result of COVID-19, this is a familiar challenge and a reminder of the importance of creating work-from-home spaces that include closeable doors and other physical separations from family members or housemates.

It is important to note that this may be a particular challenge for older workers with low incomes. Some live with multiple generations of their family in crowded places with limited access to personal space. One research study conducted before the pandemic indicated that increased suitability of the workspace at home strengthened all measured outcomes of remote work (overall satisfaction with the arrangement, perceived advantages of remote work, career opportunities, and increases in self-reported productivity).²⁸

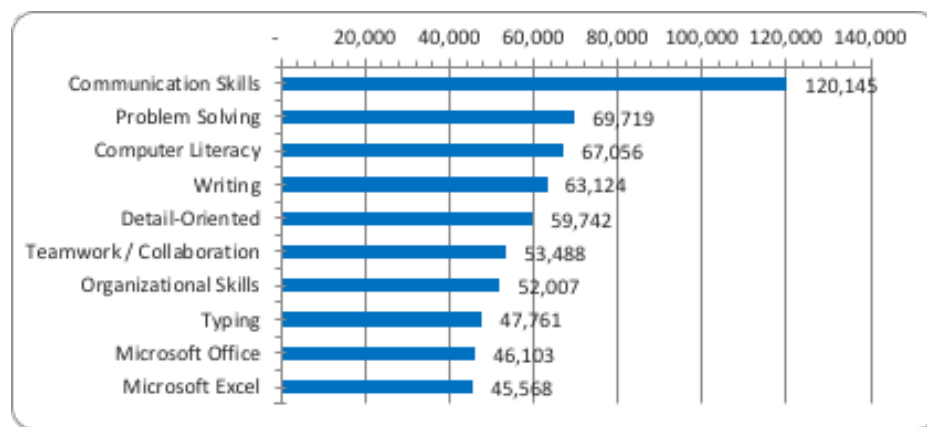
Because remote work jobs are often intrinsically tied to technology, and technology is constantly evolving, remote workers also need a flexible mindset that enables them to continually expand their skills and a willingness to use the tools that will help them adapt.

In-Demand Skills Identified in Online Job Postings

Of course, it is always important to ask employers what they are looking for when hiring. Below are the results of analysis JFF performed on online job postings to identify the skills that were in high demand for remote jobs in 2020 (see Figure 3). The findings confirm the need for strong communication skills, as noted above, including writing, typing, and computer literacy. Some low-income older workers may need training to develop these skills.

Figure 3. High-Demand Baseline Skills for Remote Jobs, 2020

Full-year 2020 data on the top 10 skills sought in the 422,994 online postings for “work from home” jobs requiring less than a four-year degree (inferred).

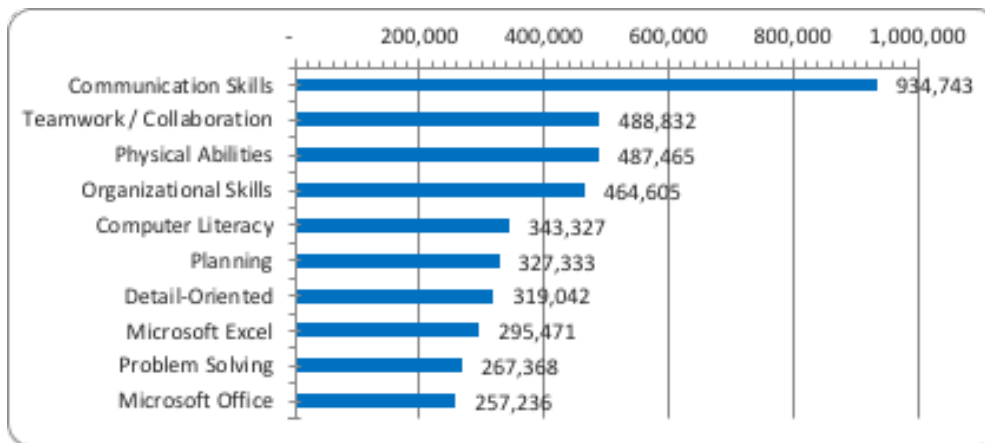


Source: Burning Glass Technologies Labor Insight data, accessed February 2021, <https://www.burning-glass.com>.

Below are the skills in high demand for occupations with the highest number of workers ages 55 and older (see *Figure 4*). Again, strong communication is at the top of the list of skills required, along with computer literacy.

Figure 4. High-Demand Baseline Skills for Occupations With the Highest Number of Workers Age 55+

Full-year 2020 data on the top 10 skills sought in online postings for top 5 occupations with the highest number of workers ages 55 and older. The skills below are drawn from all postings for these occupations, including both remote and non-remote roles.



Source: Emsi 2021.1 Class of Worker Data was used to understand the presence of older workers by occupation. Job postings are from Burning Glass Technologies Labor Insight data, accessed March 2021, <https://www.burning-glass.com>.²⁹

Expansive growth in remote work opportunities is happening now and is likely to continue. The skills needed to succeed in remote work are identifiable. It is critical, therefore, to determine ways in which this trend and information might be leveraged to make remote work more accessible to low-income and low-skill workers.

Section 2: Low-Income Older Workers

As previously noted, low-income older workers disproportionately lost jobs during the pandemic. By definition, this population lacks the financial resources to offset the shock of unemployment, and they cannot afford to retire. It is imperative to explore ways our country might be able to prepare low-income older workers for remote work in order to increase their viability in the labor market.

Older Workers and Low-Income Workers Hit Hard by Pandemic

As of February 2021, near the peak of COVID-19 infections in the United States, the unemployment rate for people age 55 and older was 5.3 percent, more than double the rate just one year earlier, before the coronavirus started to spread widely here.³⁰ This group also tends to include a high percentage of people considered involuntary unemployed—people who have stopped looking for work and left the labor force completely because they haven't been able to find a job, as well as people who are seeking work but are unsuccessful for long periods of time.

When the pandemic began, most low-income older workers worked in roles that required their physical presence at the job site, such as restaurant service and retail sales. When employers were forced to close businesses, many low-income older workers were laid off, either temporarily or permanently. In contrast, higher-income older workers in so-called knowledge-based positions were more likely to remain employed because they were able to do their jobs from home.³¹

In particular, older non-white and older female workers sustained higher levels of job loss in the early months of the pandemic. Nearly 20 percent of non-white older workers lost their jobs from March to June 2020, and a higher share of non-white workers stopped looking for work and left the labor force entirely compared with older white workers.³² The share of older workers who exited the labor force after losing their jobs was 5.4 percent of white men, compared with 10.2 percent of non-white men, and 7.5 percent of white women, compared with 11.8 percent of non-white women.³³ By May 2021, over half (52.5%) of jobseekers ages 55 and over were long term unemployed.³⁴ Additionally, roughly 1.1 million older workers age 55+ exited the workforce between August 2020 and January 2021 due to the pandemic recession.³⁵

These figures indicate that determining ways to support low-income older workers is also a matter of equity.

The financial burden of unemployment and lost earnings critically affects low-income workers. Households earning less than \$30,000 per year were almost twice as likely as households

earning above \$75,000 annually to report lost income in April 2020 as a result of the pandemic.³⁶ The economic toll on low-income older workers was likely further exacerbated by factors that cause older workers to take nearly twice as much time to find a new job as younger workers.³⁷

Clearly, these populations have been disproportionately displaced from the workforce by the pandemic, and their specific challenges and strengths need attention in order for them to benefit from future growth of remote work. As the economy reignites post-COVID-19, if we are to maintain a robust, prepared, and more equitable workforce, the role of people ages 50 and older must be carefully considered.

Identifying Sectors With High Representation of Low-Income Older Workers Affected by COVID-19

Given our focus on low-income older workers who are unemployed or have lost hours and wages due to the pandemic, we conducted research to determine the occupations in which these workers were employed pre-pandemic and to compare those with the occupations hardest hit by COVID-19. Our research shows that low-income older workers are more represented in some low-wage jobs than in others. The tables below list, by education level, the low-wage jobs that employed the largest numbers of older workers, although the data do not include workers over age 65 (*see Figures 5-7*).³⁸ Note that in several cases, the occupational groups with the highest percentage of older workers—such as cleaning and pest control, and retail sales—are also the types of jobs with the greatest number of low-wage workers. Additionally, many of these occupations faced massive layoffs or furloughs in the face of COVID-19. This double uncertainty—regarding both financial and job insecurity—can create exceptional stress for people working in these jobs.

Figure 5. Most Common Occupations for Workers Ages 51-64 With a High School Diploma or Less

This table represents the most common occupational groups for individuals ages 51-64 with a high school diploma or less. The total number of individuals ages 51-64 with a high school diploma or less is 5.6 million. These workers are more likely to work in construction or manufacturing, or to operate motor vehicles. They constitute 10 percent of all low-wage workers.

Occupation Group	# of Low-Wage Workers, Ages 51-64, With a High School Diploma or Less	% of Low-Wage Workers, Ages 51-64, With a High School Diploma or Less	Share of All Workers in Occupation Who Earn a Low Wage
Building cleaning and pest control workers	580,580	10%	75%
Retail sales workers	359,280	6%	76%
Motor vehicle operators	345,220	6%	50%
Material-moving workers	298,400	5%	66%
Cooks and food preparation workers	282,380	5%	87%
Other personal care and service workers	243,570	4%	81%
Other production occupations	227,420	4%	53%
Construction trades workers	227,000	4%	47%
Information and records clerks	208,950	3%	61%
Material recording, scheduling, dispatching, and distributing workers	205,330	3%	57%

Source: The Brookings Institution “Meet the Low-Wage Workforce.” Data in the second column do not sum to 5.6 million because only the top occupational groups by employment are listed.³⁹

Figure 6. Most Common Occupations for Workers Ages 51-64, With Some Postsecondary Education but No Degree

The total number of people in this category and represented in the table below is 2.3 million. These workers have some education beyond high school but do not have a degree. Workers in this category are most likely to work in administrative positions and constitute 4 percent of all low-wage workers.

Occupation Group	# of Low-Wage Workers, Ages 51-64, With Some Postsecondary Education but no Degree	% of Low-Wage Workers, Ages 51-64, With Some Postsecondary Education but No Degree	Share of All Workers in Occupation Who Earn a Low Wage
Retail sales workers	170,170	8%	76%
Information and records clerks	152,950	7%	61%
Motor vehicle operators	123,370	5%	50%
Secretaries and administrative assistants	121,780	5%	45%
Building cleaning and pest control workers	107,730	5%	75%
Other personal care and service workers	101,710	5%	81%
Other office and administrative support workers	96,340	4%	50%
Financial clerks	84,380	4%	47%
Material recording, scheduling, dispatching, and distributing workers	82,300	4%	57%
Nursing, psychiatric, and home health aides	79,420	4%	74%

Source: The Brookings Institution “Meet the Low-Wage Workforce.” Data in the second column do not sum to 5.6 million because only the top occupational groups by employment are listed.⁴⁰

Figure 7. Most Common Occupations for Workers Ages 51-64, With an Associate's Degree or More

The total number of people in this category and represented in the table below is 2.4 million. These workers hold an associate or bachelor's degree and are most likely to work in education. They comprise 5 percent of the low-wage workforce.

Occupation Group	# of Low-Wage Workers, Ages 51-64, With an Associate's Degree or More	% of Low-Wage Workers, Ages 51-64, With an Associate's Degree or More	Share of All Workers in Occupation Who Earn a Low Wage
Preschool, primary, secondary, and special education school teachers	196,780	8%	27%
Retail sales workers	170,730	7%	76%
Information and records clerks	142,910	6%	61%
Secretaries and administrative assistants	109,360	5%	45%
Other personal care and service workers	95,290	4%	81%
Other management occupations	93,660	4%	21%
Other office and administrative support workers	87,580	4%	50%
Other education, training, and library occupations	78,930	3%	73%
Motor vehicle operators	78,380	3%	50%
Financial clerks	66,160	3%	47%

Source: The Brookings Institution, *Meet the Low-Wage Workforce*. Data in the second column do not sum to 5.6 million because only the top occupational groups by employment are listed.⁴¹

Clearly, there is a need to focus on lower-income older workers who lost jobs during the pandemic and to provide opportunities for remote work when possible. Yet, figuring out how to build that bridge is not obvious. The next section tackles some of the issues.

Section 3: Opportunities For Low-Income Older Workers In The Remote Work Labor Market

Low-Income Older Workers Would Benefit From Remote Work

There is no research yet on the advantages that remote work offers low-income older workers in particular, or on the ways in which this population is a good fit for remote work. However, remote work offers many benefits for workers generally that would benefit low-income older workers as well. They include the following:

- Greater protection against serious health threats like COVID-19.
- Expanded access to job opportunities beyond commuting distance.
- The ability to continue to work despite disabilities or health conditions that make it difficult to access or work in a central office.
- Reduced transportation costs.
- The potential for increased opportunities for career advancement for roles that require remote work experience.
- Advancement potential, leading to financial stability.
- General job satisfaction, including feelings of empowerment, autonomy, and trust.
- Less stress due to greater autonomy, better work-life balance, or other factors.

Keeping in mind the benefits of remote work generally, it seems reasonable to consider how it might offer a bridge to greater income stability for some low-income older workers. One hope is that the ability to work remotely could open up new job opportunities with better pay for this population. Another is that gaining remote work experience could enable this population to gain new skills that would make it easier to find a subsequent remote job with better pay. Further, the expansion of job opportunities beyond commuting distance would provide low-income older workers who live in rural areas with access to urban job centers.

Employers Would Benefit From Low-Income Older Workers in Their Remote Workforces

It is not only low-income older workers themselves who are likely able to benefit from remote work; it is their employers, too—particularly those that want to build a multigenerational workforce. Many low-income older workers already have skills that would make them a good fit for remote work. In addition to the in-demand skills noted in the previous section, research cites other crucial assets older workers can provide to employers. Please note that this research applies to all older workers; it is not specific to low-income older workers.

Employability Skills

Research has found that older workers score highly on assessments of essential employability skills. They often bring institutional knowledge, which can be particularly valuable for training newer employees, and they are often viewed as more reliable than younger workers.⁴² Many older workers have been found to possess strong skills such as leadership, attention to detail, organization, listening, writing, loyalty, reliability, productivity, and problem-solving.⁴³ As noted above, many of these skills are critical for remote work success. Older workers can be an excellent source for these skills.⁴⁴

Workplace Productivity

In a 2018 FlexJobs survey, 65 percent of respondents said they were more productive in their home offices than at a traditional workplace.⁴⁵ Greater productivity may well be the norm under typical work-from-home scenarios. COVID-19 certainly complicated work-from-home situations by often forcing whole families to be home together, sharing limited space and technology for learning and working. However, a May 2020 survey showed that baby boomers, all of whom are now over the age of 55, were the second-most-likely generation to respond that they were very productive working from home during the pandemic: Eighty-three percent of them gave that reply, compared with 85 percent of Generation X (some of whom are over 50), 76 percent of Generation Y (millennials), and 44 percent of Generation Z.⁴⁶

Workforce Retention

Research through the U.S. Bureau of Labor Statistics has shown that workers ages 55-64 have on average been at the same company three times longer than workers ages 25-34, with more than half of older workers being employed by their current employer for 10 or more years.⁴⁷

Job Categories That May Offer Remote Work Opportunities for Low-Income Older Workers

In order to provide recommendations for the potential transition of low-income older workers to remote work positions, JFF analyzed labor market data that reflect where older workers with limited educational credentials are most likely to be employed, where remote work possibilities exist, and which transferable skills older workers have and may use in new work opportunities. We examined data for both industries and occupations because there is overlap for some roles. For example, the occupation of sales manager exists across multiple industries, such as wholesale trade, retail trade, and information technology.

Occupational data show that remote work historically has been most common among managers, salespeople, and office and administrative workers. Other occupations with a high prevalence of

remote work before the pandemic were business and professional jobs and personal care and service jobs. As for industries, professional, scientific, and technical services account for the largest share of remote positions—17 percent of the total. Other industries where remote workers are more likely to be employed are health care and social assistance, finance and insurance, information technology, manufacturing, educational services, and real estate and leasing.⁴⁸

The potential for low-income older workers to transition to these occupations will depend on three factors. First, we believe that many low-income older workers have skills that will help them transfer into these new sectors, and we believe these skills can be effectively documented as part of their work experience, particularly as employers become more flexible and inclusive in recruiting talent. Workers may require less direct training to acquire new workplace skills but need help translating and documenting prior learning and work experience in creative, effective ways. Second, we also recognize that in many instances, moving between jobs and industry sectors will require postsecondary training as well, and ensuring that older workers have access to targeted, affordable training options will be important. Third, many industries are changing the ways they interact with customers and that workers will need assistance translating the traditional customer service skills they may already have to a remote, digital marketplace context.

Emerging Demand: Remote Job Posting Data

With the onset of the pandemic, many workers—including those age 50 and over—have been seeking opportunities to work remotely, and many have had remote work thrust upon them and happily discovered its rewards. JFF analyzed employer demand for remote workers based on job postings from January to December of 2020. Figure 8 shows the jobs with the highest volume of posts offering remote positions.

Figure 8. Number of Remote U.S. Job Postings, by Category

Full-year 2020 data on “work from home” jobs that do not require heavy lifting or physical skills. Note that the relatively low percentages of remote jobs are likely a reflection of the fluid nature of remote work. Employers may not yet feel the need to list jobs as remote even though they are open to hiring remote workers in those positions for fear it would limit their talent pool. Or they may not yet find that job applicants are explicitly seeking out remote-only opportunities. This is an area that needs more research.

Occupation Group	Total number of job postings in category in 2020	# of postings that were both remote and excluded physical skills	Share of job postings that were both remote and excluded physical skills
Insurance Sales Agents	218,800	62,100	28%
Customer Service Representatives	866,700	51,367	6%
Software Developers, Applications	984,000	45,806	5%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	938,800	42,841	4.5%
Computer Occupations, All Other	842,200	36,232	4%

Source: Burning Glass Technologies Labor Insight data. <https://www.burning-glass.com>.

Three of the five jobs listed above with high posting volumes for remote positions might be within reach of low-income older workers—if they receive some targeted training:

- Customer service representative.
- Sales representative.
- Insurance sales agent.

These positions are commonly held by older workers, and all three require similar transferable skills, without requiring additional postsecondary education. As these industries shift away from direct sales in brick-and-mortar stores or offices, they will still require employees with communication skills, including the foundational skills noted above, along with direct sales capabilities. Older workers will need to demonstrate the portability of their skills across these adjacent sectors and should be open to additional training where needed.

In an effort to determine the occupations most likely to employ workers over the age of 55 who might be candidates for in-demand remote positions, JFF extracted data on occupations that

employ the largest number of workers in that age group. Such jobs span a range of occupational groups but are particularly concentrated in health care and office and administrative positions. Based on 2020 data, the occupations with the largest number of workers over age 55 are listed in Figure 9. All of these roles require a typical entry level of education of less than a bachelor's degree, except for registered nurses.

Figure 9. Detailed Occupational Data

Occupations with the greatest number of workers ages 55 and older, earnings, and insights into the risk of automation for each of these roles*

Occupation Group	Number of Workers	Median Hourly Wage	Automation Index
Home Health and Personal Care Aides	1.3 million	\$12.15	93.6
Retail Salespersons	1 million	\$12.14	93.4
Office Clerks, General	897,600	\$16.37	102.0
Registered Nurses	804,400	\$35.24	85.3
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	774,600	\$18.12	91.4

Source: Emsi 2021.1 Class of Worker Data for U.S., accessed March 2021, <http://www.economicmodeling.com>.

*The automation index is presented as a scale with a base of 100. An automation index greater than 100 indicates a higher-than-average risk of automation; an automation index less than 100 indicates a lower-than-average risk of automation.

Potential Transitions From Retail Sales

In this section, we will use a few hypothetical scenarios to illustrate how low-income older workers might move from jobs they held before the pandemic to remote-friendly jobs post-pandemic.

Considering that nonessential retail is one of the industries most negatively affected by COVID-19, displaced retail workers could be viable candidates for transitioning to roles such as remote customer service representative or sales representative. As noted above, more of these jobs are becoming remote, and the skills required are likely to be transferable from the retail industry.

Retail salespeople require a wide range of skills and abilities that might help them transition into remote-feasible roles such as online shopping assistants, customer service representatives, and sales personnel in nonretail settings. Such skills include sales and marketing capabilities;

the ability to use technologies such as point-of-sale software, database user interfaces, and word processing applications; and customer service skills such as persuasiveness and active listening. Such roles would also likely leverage foundational English language and mathematic skills.

It is not hard to imagine scenarios where these retail sales clerks could transition to the remote-feasible roles with some support and training. Consider the following transitions a retail salesperson could make and the skills they would need to succeed.

- **Online shopping assistants**—Transitioning to this role would require knowledge of the products for sale; the ability to answer consumer questions, likely by accessing company databases; digital skills, such as using artificial intelligence-enabled chat systems to handle real-time digital communication with multiple consumers simultaneously; and effective communication skills to handle customer requests over the phone as well as via chat and email.
- **Customer service representatives**—Transitioning to this role would require a slightly higher level of self-direction, task ownership, and critical thinking skills, in order to handle the review of customer requests, determine whether a return or exchange is warranted, and make other kinds of independent decisions. In these positions, former retail sales clerks would be able to apply their customer interaction skills and combine them with new knowledge of business systems and processes. They would need support in learning order-processing, billing, and shipping systems. They would also need strong one-on-one speaking, writing, and video communication skills.
- **Insurance and financial product salespeople**—Transitioning to this role would require a range of new product knowledge that is likely very different from the physical inventory the employee would be familiar with, as well as skills of persuasion and customer relations to negotiate and close deals. Training in the sales cycle and the use of a customer relationship management system to track and follow up on leads would be critical. This role would also require the use of email and other digital communication systems, as well as increased self-direction, task ownership, and critical thinking.

While transitioning from retail to a customer service or online shopping assistant position might not yield better pay, it could provide a way to gain remote work skills and experience that could lead to career pathways offering higher wages.

Potential Transitions From Home Health Care

As seen in Figure 9 above, home health aide is the most common role for workers ages 55 and over. It's also one of the top 10 occupation groups for workers ages 51-64 with some postsecondary education but no degree. The health care industry was affected by COVID-19 in

significantly different ways than other industries, and it's not hard to imagine that many of those workers would prefer to work remotely.

As with retail sales clerks, home health aides also possess a range of skills, knowledge, and abilities that would help them move into remote work such as telemedicine patient support. Telemedicine support requires active listening, a service orientation, critical thinking, the ability to monitor and assess situations, and strong problem-solving and inductive reasoning skills. As a telemedicine patient support specialist, the home health aide would need to learn a range of new communication tools, including email; videoconferencing; and database systems for reviewing, tracking, and entering patient information. As the medical field continues to embrace new technologies, such roles may also require working with patients to ensure that data from medical monitoring and tracking devices are linked to their electronic health records.

Other Potential Transitions

Other job transitions might also be considered for low-income older workers, such as the following:

- Bookkeeping, accounting, and auditing clerks could consider a transition to remote financial services.
- Certified nursing assistants could consider a transition to medical billing.
- Truck drivers could consider a transition to logistics support, supply chain, or scheduling jobs.

The process of matching skill sets between roles currently held by low-income older workers and possible remote positions can be explored through a skill adjacencies analysis. This involves economists and labor market researchers aligning occupational skill profiles and demographic profiles to allow for the establishment of connection points between the jobs workers are coming from and those they might readily transition into. This type of research will require deeper exploration in the future.

Potential Barriers That Could Prevent Low-Income Older Workers From Accessing Remote Work

One cannot imagine transitioning low-income older workers into remote work without addressing the multiple barriers that they may face. Many low-income workers are employed in frontline positions that require them to be physically present to do their jobs. Grocery store clerks, office cleaners, pest control workers, and retail sales workers could not do their jobs from home when the pandemic allowed many higher-wage workers to shelter in their homes and

work remotely. As much as low-income older workers might want to take advantage of remote work opportunities, they face some key barriers that were clear in our research.

Internet Access or Other Technology Barriers

The use of information and communications technology and, therefore, digital skills, are essential. Pre-pandemic research indicated that 40 percent of people were teleworking at least occasionally, and when they did, they used technology that includes the internet, smartphones, home computers, laptops, tablet computers, and teleconferencing and videoconferencing tools.⁴⁹ Still, nearly 20 percent of households are at or below the federal poverty level and are less likely than wealthy households to have broadband access.⁵⁰ Nevertheless, many workers today say they don't know how to use the technology needed to do their jobs and lack confidence in their technology skills. Almost 30 percent of U.S. adults ages 55 to 65 are not digitally literate.⁵¹ As noted above, only 56 percent of baby boomers said they felt they had the technology skills necessary to get a new job, compared with 77 percent of millennials.

Lack of Prior Experience as a Remote Worker

Prior experience is often a preferred or required qualification for job candidates, even for entry-level positions. Although employers are not currently stipulating that potential employees must have prior remote work experience as a prerequisite for being hired or for being allowed to work from home, many of the employment guides published during the pandemic advised jobseekers to show that they possess the skills needed for this kind of work. Because of the pandemic, more jobseekers than ever before can point to their remote work experience. Those who cannot may instead emphasize complementary skills, such as being a self-starter, an excellent communicator, and an outstanding time manager.⁵²

Education, Training, and Degree Requirements

Degree inflation in job postings is a common practice for non-remote jobs, with many employers requiring a bachelor's degree for positions that don't truly require that level of education. Examples include bookkeepers and secretaries.⁵³ Although research has yet to be done on degree inflation for remote job postings, this practice may carry over to remote work postings as well. Degrees can be a default signal for work readiness, especially for jobs with additional risks to the employer, such as remote jobs. Even as more employers, including IBM and Google, are recognizing alternative credentials, it is not clear whether the number of jobs that do not require a college education are increasing. Although many remote-ready jobs do not necessarily require a bachelor's degree, research has found the share of jobs that can be performed at home is strongly positively correlated with a metropolitan area's median household income and its share of college graduates.⁵⁴ This may be a challenge for low-income older workers, 55 percent of

whom have a high school education or less and only 16 percent of whom hold a bachelor's degree or higher credential.⁵⁵

Age Discrimination

Older workers have consistently experienced age discrimination, according to longitudinal studies conducted on behalf of AARP in 2002, 2007, and 2013. The 2013 Staying Ahead of the Curve survey of 1,502 workers ages 45 to 74 found that the proportion of respondents ages 45 to 56 who had seen or experienced age discrimination had steadily declined. Meanwhile, the proportion of respondents ages 57 to 64 who had seen or experienced age discrimination had increased. In all three studies, at least three out of five older workers reported having seen or experienced age discrimination in the workplace. The 2007 survey showed a drop from 67 percent to 60 percent of respondents who had seen or experienced age discrimination. However, the 2013 survey indicated a reversal, with 64 percent reporting that they had seen or experienced age discrimination.⁵⁶ Given that there appears to be little research about how such discrimination may affect remote workers, this may be a topic for further exploration.

Lack of Physical Space

As noted earlier in this paper, a suitable remote workspace has been shown to strengthen measured outcomes of remote work; yet some low-income older workers may live in crowded spaces where it can be challenging to set up a distraction-free work area.

While low-income older workers face multiple barriers to obtaining remote work, they also bring attributes that are a good fit for a work-from-home arrangement. Clearly, this population will need wraparound support services (such as assistance setting up equipment, mentorship on successful work-from-home strategies, or training on new platforms or technologies) to make such transitions. This will require partnerships between willing employers, education and training providers when needed, and workforce development organizations. With the growth in remote work opportunities and the needs of this population, it is an effort whose time has come.

Section 4: Much Remains Unknown

There are a number of unknowns that will be shaping the remote work landscape over the next several years. These variables will affect the number and quality of opportunities in remote work for low-income older workers as well as the overall workforce. Continued research in this area must consider the following:

- Which industries and occupations will be most transformed by COVID-19?
- Which jobs will stay remote following the pandemic?
- Will companies' that shifted to remote work arrangements during the pandemic for high-wage jobs requiring postsecondary education now consider opening a broader range of jobs to remote work?
- Just because a low-wage job becomes remote-accessible doesn't mean that it is a high-quality job. Will workers have opportunities for career advancement, including wage growth, over time? Which jobs and sectors provide better pathways?
- Older workers appear to be a great fit for remote jobs, but can we confirm this? What are the best ways to test this hypothesis?
- Which lower-skill jobs are currently being done remotely?
- What would it take (new technology, training opportunities, changes in job descriptions and requirements, infrastructure improvements), and what would employers need to see (cost savings, higher productivity, greater worker retention, greater job satisfaction), in order to support the shift to remote work for lower-wage jobs?
- It may be that older workers have low confidence that they possess the digital skills needed for remote work. Is this true, and is it based in real vs perceived skills gaps? If real, what types of training can boost these skills? If not, how can their confidence in their capabilities be increased?
- Low-income workers face considerable barriers if they are to access and succeed in remote work. What entities are best situated to provide assistance in overcoming these barriers?
- Is it possible to convince employers of the value of low-income older workers as potential remote worker talent?

Given that long list of considerations, it's not too soon to begin testing how opportunities might be created for low-income older workers to access and benefit from this emerging marketplace.

Section 5: Recommendations

Research to date and in this paper has dealt primarily with national trends and observations about older workers and/or low-income workers and, whenever possible, the intersection of the two. Research shows the potential that remote work holds for low-income older workers, but much remains to be learned about remote work in general and how this population might take advantage of remote opportunities.

JFF recommends that in addition to conducting further research to track the evolution of remote work for low-income older workers, we bring a practical focus to this field of inquiry by exploring pilot initiatives with a direct focus on low-income older workers and remote work. Initial pilots might focus on the following:

- 1. Increase employer commitments to building a remote-ready multigenerational workforce, with a focus on increasing the number of remote jobs for lower wage/skilled and frontline older workers.** The pandemic showed many companies that remote work was possible. The next phase is to be more intentional about creating equitable access to remote work for older lower wage workers. This means rethinking job descriptions and occupational skill sets to emphasize remote working skills, developing training and providing supports to help older workers thrive in these new roles, and investing in technologies to make remote work more easily accessible. In addition, it will be important to consider and hire qualified older workers. AARP, AARP Foundation, and program partners have done a lot of work to encourage and get companies to consider and hire low-income older workers to fill their talent needs and provide access for a more diverse and inclusive workforce. This work is ongoing, as age discrimination continues to be a persistent and increasing challenge for older workers. Now is the time for all key workforce stakeholders to connect these employers more directly with organizations and resources that support low-income older adults by changing the hiring paradigm in the face of evolving remote work practices. This involves identifying and promoting use of skills assessment tools to demonstrate individuals' readiness for remote work and a process for building skills through appropriate and proven education and training providers, establishing ways for low-income older workers pathways to family sustaining wage jobs that are remote.

Potential Strategy: Work closely with employers to increase the number of remote ready opportunities and develop and provide supports, processes, and tools to identify, test, and compile to encourage broader employer hiring of low-income older workers for remote jobs across sectors and the country.

- 2. Equip low-income older workers with technical and other skills to meet employer needs by working remotely.** To take advantage of remote jobs, low-income older workers may need skills and technical training, particularly since many lack access to education and training programs and resources. There are a number of pre-existing initiatives like SkillUp, Verizon Skills Forward and Grow with Google that already focus on pairing lower-wage workers with new career opportunities in in-demand jobs, and which partner with community colleges and other training providers. It would be relatively straightforward to modify these types of programs to better meet the needs of older workers, with the growing jobs highlighted in this report to specifically target older workers that includes training for remote work customizing recruitment, and providing wraparound student supports. This would also be a great opportunity to raise awareness about the importance of including older workers in conversations around equity and economic opportunity, and to dispel some of the myths around older workers and tech jobs.

Potential Strategy: Develop a matrix to map potential short-term training programs and strategies to prepare low-income older workers for remote work.

- 3. Take advantage of shifts resulting from COVID-19 to find remote job solutions for highly impacted low-income older workers.** In communities most impacted by the virus, older adults have a critical need to connect to organizations that support low-income older adults or work specifically with unemployed members of this population. As well, there is a chance to tap into funding and initiatives specifically geared to recovery. To meet immediate needs, organizations would assess participants' interest in remote work, identify prior experience relevant to new employment opportunities, and provide targeted, just-in-time rapid retraining to address skills gaps and to prepare to successfully work remotely.

Potential Strategy: Identify or develop appropriate skills interest and assessment tools to determine level of readiness for remote work and recommend a transitional and efficient process for building needed skills. Engaging sector or regional employers with a new interest in hiring remote workers and a willingness to employ low-income older workers who meet their hiring criteria would be a critical strategy.

Each of the above approaches begins with the employer, the program, or the learner as a way to build bridges to remote work for low-income older workers. And each one needs to be addressed

from the point of view of both supply and demand—and where they intersect. The combined intended outcomes of the pilots would be to gain specific insights to inform the following:

- What are the most common skills needs among low-income older workers, and what are effective processes for making sure they are prepared for and able to succeed at remote work?
- What are the other barriers impeding low-income older workers from competing for remote work positions?
- What types of remote work are employers most likely to hire and support low-income older workers to do?
- What employer needs must be met in order to increase their willingness to hire low-income older workers?

Conclusion

Our research has balanced the need to know more about emerging opportunities for working remotely with the consideration of how they might translate into opportunities for low-income older workers. The number of variables and unknowns when considering both low-income older workers and the future of remote work can be daunting. However, it is a juxtaposition that offers employment possibilities not previously available if we make a concerted effort.

Our research makes a strong case for employing low-income older workers in the expanding remote-job market. Remote jobs would provide them with flexibility and an opportunity to prove their worth in jobs that depend on self-motivation and commitment. Additionally, these workers can transfer and build the essential and technical skills employers need and foster their digital productivity.

At the same time, however, it will be necessary to make the business case for hiring these workers, who are not typically seen as having the access, resources, or experience to transition effectively into remote jobs. The stigmatization of older workers, and particularly those earning lower wages and/or with lower skill levels, is exacerbated in today's fast-paced economy. Increasingly, these low wage or lower skill older workers will need to master new skills in order to compete. If we can help them feel more confident and provide access to learning opportunities to build their skills and competencies, we can help to ensure that they will have a place in the new economy.

Fortunately, this shift in perspective comes at a time when employers are looking beyond traditional degrees and hiring practices to broaden the talent pipeline and create a more diverse

and inclusive workforce. For lower-income older workers, this could level the playing field and help them compete with more traditional job applicants in general and, more specifically, as remote workers who bring valued experience, skills, and traits to new jobs.

The business case can be made, however, that remote work both alleviates some of the physical and logistical barriers that hamper some older workers and elevates the importance of the employability skills they have developed throughout their lives. We can make the case to employers that building a multigenerational workforce leads to better productivity, as the evidence has shown. This population is worth investing in as businesses explore how remote work can make their workforces more stable and productive.

To do this, we hope to work with employers to develop some specific examples of how remote work can benefit them and low-income older workers alike by providing opportunities for many who have been displaced in the current job market and demonstrating their value. The recommendations in this report need to be elevated, demonstrated, and highlighted in real world conditions across a range of employers and sectors to test and prove their power.

Two trends are reshaping the American workforce: an increasing number of older workers in the workforce and the emergence of flexible, remote work opportunities. And yet, more could be done to find the intersection between these two trends, with the goal of creating pathways for low-income workers into better jobs and higher wages. The time is right to show how we can create new spaces for low-income older workers, establish their value, and ensure a talent source for years to come.

This report was made possible through a grant from AARP Foundation.

Endnotes

¹ May Wong, “Stanford Research Provides a Snapshot of a New Working-From-Home-Economy,” *Stanford News*, June 29, 2020, <https://news.stanford.edu/2020/06/29/snapshot-new-working-home-economy>.

² Molly Kinder and Martha Ross, “Reopening America: Low-Wage Workers Have Suffered Badly From COVID-19 So Policymakers Should Focus on Equity,” The Brookings Institution, June 23, 2020, <https://www.brookings.edu/research/reopening-america-low-wage-workers-have-suffered-badly-from-covid-19-so-policymakers-should-focus-on-equity>.

³ Kenneth Terrell, “Unemployment’s Toll on Older Workers Is Worst in Half a Century,” AARP, October 21, 2020, <https://www.aarp.org/work/working-at-50-plus/info-2020/pandemic-unemployment-older-workers.html>.

⁴ Owen Davis et al, “The Pandemic Retirement Surge Increased Retirement Inequality,” Schwartz Center for Economic Policy Analysis, June 1, 2021, <https://www.economicpolicyresearch.org/jobs-report/the-pandemic-retirement-surge-increased-retirement-inequality>.

⁵ *America’s Aging Workforce: Opportunities and Challenges* (Washington, DC: United States Senate Special Committee on Aging, December 2017), <https://www.aging.senate.gov/imo/media/doc/Aging%20Workforce%20Report%20FINAL.pdf>.

⁶ “Unemployment Rates,” U.S. Department of Labor, accessed June 17, 2021, <https://www.dol.gov/agencies/wb/data/latest-annual-data/employment-rates>.

⁷ Erik Brynjolfsson et al., *COVID-19 and Remote Work: An Early Look at U.S. Data*, working paper 27344 (Washington, DC: National Bureau of Economic Research, June 2020), <https://www.nber.org/papers/w27344>.

⁸ Neil Irwin, “Workers Are Gaining Leverage Over Employers Right Before Our Eyes,” *The New York Times*, June 5, 2021, <https://www.nytimes.com/2021/06/05/upshot/jobs-rising-wages.html>.

⁹ Jonathan I. Dingel and Brent Neiman, *How Many Jobs Can Be Done at Home?* (Chicago: Becker Friedman Institute for Economics, University of Chicago, June 2020) https://bfi.uchicago.edu/wp-content/uploads/BFI_White-Paper_Dingel_Neiman_3.2020.pdf.

¹⁰ Kate Lister and Tom Harnish, “Telework and Its Effects in the United States,” in *Telework in the 21st Century: An Evolutionary Perspective*, ed. Jon C. Messenger (Northampton, Massachusetts: Edward Elgar Publishing, 2019), <https://globalworkplaceanalytics.com/wp-content/uploads/edd/2020/05/Telework-in-the-21st-Century-Lister-and-Harnish.pdf>.

¹¹ Brie Weiler Reynolds, “159% Increase in Remote Work Since 2005: FlexJobs & Global Workplace Analytics Report,” July 29, 2019, <https://www.flexjobs.com/blog/post/flexjobs-gwa-report-remote-growth>.

¹² Brynjolfsson et al., *COVID-19 and Remote Work*, <https://www.nber.org/papers/w27344>.

¹³ Anita Kamouri and Kate Lister, *Global Work-From-Home Experience Survey Report* (Iometrics and Global Workplace Analytics, May 2020), <https://globalworkplaceanalytics.com/whitepapers>; *The Business Case for Remote Work—for Employers, Employees, the Environment, and Society* (Global Workplace Analytics and Design Public Group, 2021), <https://globalworkplaceanalytics.com/whitepapers>; *State of Remote Work 2020: COVID Edition* (Owl Labs and Global Workplace Analytics, 2020), https://resources.owl-labs.com/hubfs/website/sorw/2020/owl-labs_sorw-2020_report-download_FINAL_07oct2020.pdf.

¹⁴ JFF calculated this number by multiplying the total expected workforce in 2025 (165 million) by the percentage expected to be in remote work from Figure 2 (22.9+14.6 = 37.5%). Data from Adam Ozimek, *Economist Report: Future Workforce*, Upwork, December 2020, <https://www.upwork.com/press/releases/economist-report-future-workforce>.

¹⁵ Chris DeRamus, “The Cloud Is the Backbone of Remote Work,” *Forbes*, June 16, 2020, <https://www.forbes.com/sites/forbestechcouncil/2020/06/16/the-cloud-is-the-backbone-of-remote-work/?sh=5fe3a4dc99cc>.

¹⁶ Teresa Müller and Cornelia Niessen, “Self-Leadership in the Context of Part-Time Teleworking,” *Journal of Organizational Behavior* 40, no. 8 (October 2019): 883-98, <https://doi.org/10.1002/job.2371>.

¹⁷ James L. Farr and Erika L. Ringseis, “The Older Worker in Organizational Context: Beyond the Individual,” in *International Review of Industrial and Organizational Psychology Volume 17*, eds. Cary L. Cooper and Ivan T. Robertson (Hoboken, New Jersey: Wiley, 2002): 31-76.

¹⁸ “Millennials: Confident. Connected. Open to Change,” Pew Research Center, February 24, 2010, <https://www.pewsocialtrends.org/2010/02/24/millennials-confident-connected-open-to-change>.

¹⁹ Adam Ozimek, *Economist Report: Future Workforce* (San Francisco: Upwork, December 2020), <https://www.upwork.com/press/releases/economist-report-future-workforce>; Roberta Sawatzky and Nathan J. Sawatzky, “Remote Work: Equipping Business Students for the Working Reality,” August 2019, <https://static1.squarespace.com/static/5b045109c258b4052b14cd0d/t/5c8d6foee4966b4eaedbfodf/1552772880182/Academic+Paper.docx.pdf>.

²⁰ *Self-Employment Report*, FreshBooks Cloud Accounting, <https://www.freshbooks.com/wp-content/uploads/2018/04/2018selfemploymentreport.pdf>.

²¹ “Collaborate, Meet, and Work Remotely,” Grow with Google, January 26, 2021, https://growonair.withgoogle.com/events/collaborate_meet_and_work_remotely.

²² Rob Ayre, “Docebo Report Reveals Employees Don’t Have the Tech Skills They Need to Do Their Job,” Docebo, June 25, 2019, <https://www.docebo.com/press/docebo-tech-skills-report>.

²³ Ayre, “Docebo Report,” <https://www.docebo.com/press/docebo-tech-skills-report>.

²⁴ Sawatzky and Sawatzky, “Remote Work,” <https://static1.squarespace.com/static/5b045109c258b4052b14cd0d/t/5c8d6foee4966b4eaedbfodf/1552772880182/Academic+Paper.docx.pdf>.

²⁵ Lesly Bailey, “Another Way to Work: More Workers, Employers Embrace Flexible Work Arrangements and Reap Benefits of Working Remotely,” *Northwest Indiana Business Magazine*, August 2, 2019, <https://nwindianabusiness.com/article/another-way-to-work>.

²⁶ Debi Ritter, “Six Benefits of Hiring Older Workers,” *Corp!*, April 19, 2012, <https://www.corpmagazine.com/industry/human-resources/six-benefits-of-hiring-older-workers>.

²⁷ Mark Muro et al, *Digitalization and the American Workforce* (Washington, DC: The Brookings Institution, November 2017), <https://www.brookings.edu/research/digitalization-and-the-american-workforce/>.

²⁸ Audronė Nakrošienė, Ilona Bučiūnienė, and Bernadeta Goštautaitė, “Working From Home: Characteristics and Outcomes of Telework,” *International Journal of Manpower* 40, no. 1 (January 2019): 87-101, <http://dx.doi.org/10.1108/IJM-07-2017-0172>.

²⁹ Emsi 2021.1 Class of Worker Data was used to understand the presence of older workers across occupations. Job postings are from Burning Glass Technologies Labor Insight data, accessed March 2021, <https://www.burning-glass.com>. Occupations with highest number of 55+ are Retail Salesperson, Home Health Aides, Office Clerks (General), Secretaries and Administrative Assistants (Except Legal, Medical, and Executive), and Registered Nurses.

³⁰ “Labor Force Statistics From the Current Population Survey,” U.S. Bureau of Labor Statistics, accessed June 17, 2021, <https://www.bls.gov/web/empsit/cpseea10.htm>.

³¹ Art Bilger, “COVID-19 and the Future of Aging: Workforce Trends,” Milken Institute, December 17, 2020, <https://milkeninstitute.org/centers/center-for-the-future-of-aging/advisory-board/covid-19-and-future-of-aging/prospects-older-workers>.

³² “Older Workers Report: Over Half of Unemployed Older Workers at Risk of Involuntary Retirement,” Schwartz Center for Economic Policy Analysis, August 5, 2020, <https://www.economicpolicyresearch.org/jobs-report/over-half-of-older-workers-unemployed-at-risk-of-involuntary-retirement>.

³³ “Older Workers Report,” <https://www.economicpolicyresearch.org/jobs-report/over-half-of-older-workers-unemployed-at-risk-of-involuntary-retirement>.

³⁴ <https://www.aarp.org/content/dam/aarp/ppi/2021/06/may-2021-employment-%20data-digest.pdf>.

³⁵ <https://www.economicpolicyresearch.org/jobs-report/the-stalled-jobs-recovery-pushed-1-1-million-older-workers-out-of-the-labor-force>.

³⁶ Marianne Bertrand et al., “How Are Americans Coping With the COVID-19 Crisis? 7 Key Findings From Household Survey,” Rustandy Center for Social Sector Innovation, University of Chicago Booth School of Business, April 23, 2020, <https://www.chicagobooth.edu/research/rustandy/blog/2020/how-are-americans-coping-with-the-covid19-crisis-7-key-findings>.

³⁷ “Older Workers Report,” <https://www.economicpolicyresearch.org/jobs-report/over-half-of-older-workers-unemployed-at-risk-of-involuntary-retirement>.

³⁸ Martha Ross and Nicole Bateman, *Meet the Low-Wage Workforce* (Washington, DC: Metropolitan Policy Program at Brookings, November 2019): 13, https://www.brookings.edu/wp-content/uploads/2019/11/201911_Brookings-Metro_low-wage-workforce_Ross-Bateman.pdf#page=13.

³⁹ Ross and Bateman, *Meet the Low-Wage Workforce*, https://www.brookings.edu/wp-content/uploads/2019/11/201911_Brookings-Metro_low-wage-workforce_Ross-Bateman.pdf. Brookings analysis of 2012-2016 American Community Survey 5-year Public Use Microdata Samples.

⁴⁰ Ross and Bateman, *Meet the Low-Wage Workforce*, https://www.brookings.edu/wp-content/uploads/2019/11/201911_Brookings-Metro_low-wage-workforce_Ross-Bateman.pdf. Brookings analysis of 2012-2016 American Community Survey 5-year Public Use Microdata Samples.

⁴¹ Ross and Bateman, *Meet the Low-Wage Workforce*, https://www.brookings.edu/wp-content/uploads/2019/11/201911_Brookings-Metro_low-wage-workforce_Ross-Bateman.pdf. Brookings analysis of 2012-2016 American Community Survey 5-year Public Use Microdata Samples.

⁴² Tay K. McNamara and Heather Tinsley-Fix, *Creating Quality Jobs: A Framework for the Multigenerational Workforce* (The Center on Aging & Work at Boston College and AARP, September 2018), <https://www.aarp.org/content/dam/aarp/work/employers/2019/05/creating-quality-jobs-a-framework-for-the-multigenerational-workforce-aarp-2018.pdf>.

⁴³ Nathaniel Reade, “The Surprising Truth About Older Workers,” *AARP The Magazine*, September 2015, <https://www.aarp.org/work/job-hunting/info-07-2013/older-workers-more-valuable.html>.

⁴⁴ Reade, “The Surprising Truth,” <https://www.aarp.org/work/job-hunting/info-07-2013/older-workers-more-valuable.html>.

⁴⁵ Brie Weiler Reynolds, “FlexJobs 2018 Annual Survey: Workers Believe a Flexible or Remote Job Can Help Save Money, Reduce Stress, and More,” FlexJobs, September 8, 2018, <https://www.flexjobs.com/blog/post/flexjobs-2018-annual-survey-workers-believe-flexible-remote-job-can-help-save-money-reduce-stress-more>.

⁴⁶ Kamouri and Lister, *Global Work-From-Home Experience*, <https://globalworkplaceanalytics.com/whitepapers>.

⁴⁷ “Employee Tenure in 2020,” U.S. Bureau of Labor Statistics, September 22, 2020, <https://www.bls.gov/news.release/pdf/tenure.pdf>.

⁴⁸ Lister and Harnish, “Telework and Its Effects,” <https://globalworkplaceanalytics.com/wp-content/uploads/edd/2020/05/Telework-in-the-21st-Century-Lister-and-Harnish.pdf>.

⁴⁹ Kamouri and Lister, *Global Work-From-Home Experience*, <https://globalworkplaceanalytics.com/whitepapers>.

⁵⁰ Kendall Swenson and Robin Ghertner, “People in Low-Income Households Have Less Access to Internet Services,” Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, April 2020, https://aspe.hhs.gov/system/files/pdf/263601/Internet_Access_Among_Low_Income.pdf.

⁵¹ Saida Mamedova and Emily Pawlowsk, *A Description of U.S. Adults Who Are Not Digitally Literate* (Washington, DC: National Center for Education Statistics, May 2018), <https://nces.ed.gov/pubs2018/2018161.pdf>.

⁵² Beth Braccio Hering, “How to Show Remote Work Experience on Your Resume,” FlexJobs, April 8, 2020, <https://www.flexjobs.com/blog/post/show-remote-work-experience-resume-v2>.

⁵³ Lola Fadulu, “Employers Are Looking for Job Candidates in the Wrong Places,” December 25, 2017, *The Atlantic*, <https://www.theatlantic.com/education/archive/2017/12/employers-are-looking-for-job-candidates-in-the-wrong-places/549080/>; *Moving the Goalposts: How Demand for a Bachelor’s Degree Is Reshaping the Workforce* (Boston: Burning Glass Technologies, September 2014), https://cdn1.vox-cdn.com/uploads/chorus_asset/file/689956/Moving_the_Goal_Posts_14.09.05_EMBARGOED_1_o.pdf.

⁵⁴ Dingel and Neiman, *How Many Jobs Can Be Done at Home?* https://bfi.uchicago.edu/wp-content/uploads/BFI_White-Paper_Dingel_Neiman_3.2020.pdf.

⁵⁵ Kelly S. Mikelson, Daniel Kuehn, and Ananda Martin-Caughey, *Occupational Projections for Low-Income Older Workers: Assessing the Skill Gap for Workers Age 50 and Older* (Washington, DC: Urban Institute, April 2017): 11, https://www.urban.org/sites/default/files/publication/89981/occupational_projections_for_low_income_older_workers.pdf.

⁵⁶ *Staying Ahead of the Curve 2013: The AARP Work and Career Study: Older Workers in an Uneasy Job Market* (Washington, DC: AARP Research, 2014), https://www.aarp.org/content/dam/aarp/research/surveys_statistics/general/2014/Staying-Ahead-of-the-Curve-2013-The-Work-and-Career-Study-AARP-res-gen.pdf.