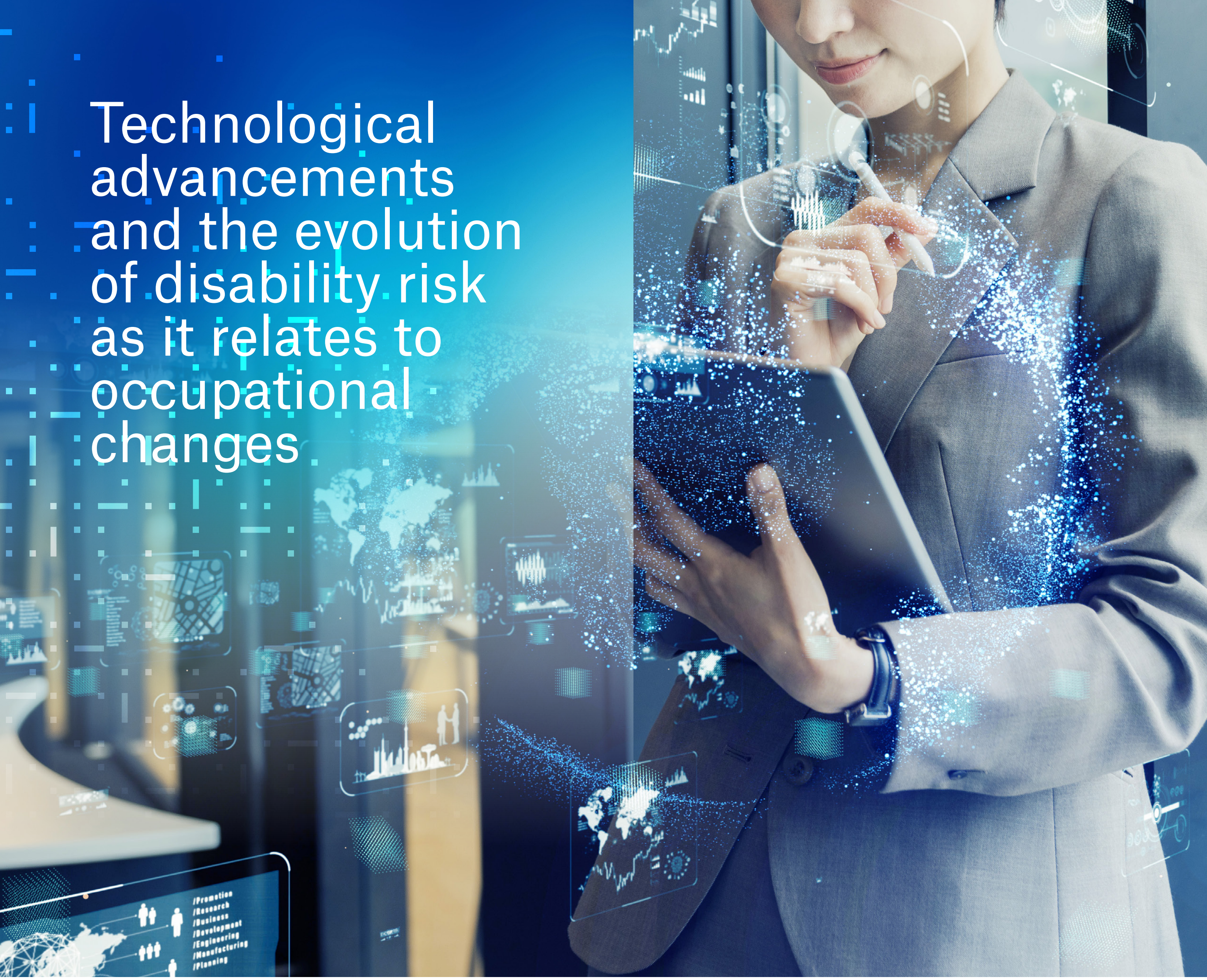
Technological advancements and the evolution of disability risk as it relates to occupational changes



The 2008 financial crisis set into motion an abundance of technological advancements that have led to significant changes in our economy, entire industries, occupations, and employment. For over a decade, there have been fluctuations in the U.S. job market caused by innovations that have altered the way disability underwriters view particular risks. Many have wreaked havoc on traditional businesses, changing the demographics, growth opportunities, and the underlying occupational duties that once represented a good risk. In this article, we highlight the industries and occupations that are impacted by these new trends now and well into the future.

The end of an era

In 2017 and 2018, we witnessed a *retail apocalypse,* which refers to the growth of internet retailing that displaced many of the giant brick and mortar stores of previous eras. Sears, Macy's, Radio Shack, Toys R Us, HH Gregg, Payless Shoes, and many other mall retailers have filed bankruptcy, impacting thousands of jobs.

Amidst the changing of the guard in retailers, some specialty retailers have achieved success by finding ways to differentiate from their online competitors. Off-price stores, or stores that sell items at lower prices than those typically charged by retail businesses, such as Five Below, Burlington Stores, GameStop, Aldi and TJ Maxx, are all organizations that have continued to strive in the ever-changing retail landscape.[1]

The evolution and the impact on occupations and demographics

As we look forward, there appear to be evolutions that are taking place. Where we saw tragedy in retail in the past (e.g., Sears, K-Mart), there are pockets that are showing improvements as industries refine and select areas of specialization which seem to align with the preferences of demographic changes. These are most pronounced when we compare millennial preferences to historical norms (e.g., more spending on food and drink and less on clothing).[2]

Occupations that typically required manual duties and support tasks are drying up. Those occupations requiring increased specialization, including technical expertise and computer programming capabilities are expanding. Some occupations have seen substantial growth, including software developers, physician assistants and nurse practitioners, and are seen as the best job prospects for the future. While software developers represent a technologically driven need, other occupations anticipate future shortages.[3]

Higher pressure on wage increases, such as the push for a $15 minimum wage, has sometimes made technology-related alternatives to employing lower level employees more cost-effective. An example of this has been the rapid addition of kiosks in many fast food chains, which has suppressed the growth of employment in those businesses.

Manufacturing has been growing again in the U.S., however, the number of jobs required to produce the same amount of output has dropped significantly due to automation. In the future, manufacturers will continue to look for opportunities to find ways to use AI and automation for the highest paying labor-intensive jobs.

Historically, occupations within older established industries have seen significant changes in job duties, resulting in decreases or increases in the number of jobs for these industries as a result of technological advancement. However, recent job reports show that since 2016, there have been significant improvements in many sectors of the economy in terms of job growth and opportunities.[4]

- In the area of Professional and Business Services, this area was seen to have added 535,000 jobs over the past 12 months, with Administrative and Support services accounting for 53,000 of those jobs.

- Meanwhile, Financial Activities saw an increase of 110,000 jobs over that same period. In this sector, Commercial Banking still showed a loss of 4,000 jobs while Real Estate and Rental activities saw increases by 12,000 jobs.
- While Manufacturing saw relatively flat figures over this recent period, pockets have shown growth comparing numbers employed by positions from 2016 against 2018.[5]
  - Assemblers increased by 15.7% (862,300 versus 997,580)
  - Laborers and Freight Handlers increased by 10.6% (299,950 versus 331,860)
  - Packaging increased by 7.7% (256,600 versus 276,470)

This shows that the economy continues to have a significant impact on what job opportunities are going away while others are growing. When economic conditions are favorable, even industries thought to be dying can see improvement as seen in the Manufacturing sector.

Another economic indicator that has impacted jobs is American spending habits. They have changed significantly due to demographic shifts and need to be understood to take advantage of where these changes might impact industries and jobs. Some of the changes worth noting are:

- The financial crisis permanently changed the way Americans spend their money.
- Clothing spending is down significantly due to millennial trends.
- With the increase in remote workers, spending in categories such as Apparel and Transportation, the use of cars and gasoline have declined.
- In 2016, for the first time, more money was being spent at food and drink establishments than grocery stores.

As a result of these developments, new opportunities for services and jobs are being created.

- Increased need for jobs in Data mining, Tech sciences, Security engineering, and Programming.
- “Tele” versions of healthcare have been created for Psychiatrists, Physicians, and Nursing. We have already observed submissions for coverage in this area.
- Technically skilled versions have been created for “Blue Collar” occupations such as Electricians, Plumbers, and other “Smart” appliance installers and repair people.

These shifts in jobs and services impact geographic areas and communities:

- Store and factory closings, or layoffs, perpetuate the reduced spending levels at local businesses.
- Anticipated tax revenues become suppressed.
- On a positive note, repurposing of former retail sites include grocery stores, churches, and the development of residential communities and office complexes.

Looking ahead

Demographic shifts should be a consideration as we underwrite in the future. LIMRA shared data summarized below based on the Bureau of Labor Statistics data titled, Dynamics of the Changing Workforce, which shows that from 2006 to 2014:

- The number of firms with between <5 lives to 499 lives, all size categories dropped by 3% to 6%. The only segment seeing growth over that period was in the 500+ category by +6%.
- We have seen some evidence of this reduction due to increased merger activity and acquisitions by new media companies emerging over the past decade or so.
- Companies like Google's Alphabet have been regularly making acquisitions, more than one per week since 2010, including Motorola, Android, You Tube, and many others.

It would be prudent for insurers to align resources so that they have the expertise available to properly underwrite large and complex accounts resulting from mergers and acquisitions.

Ages of the workforce show even more pronounced adjustments for the future. According to the Bureau of Labor Statistics, there will be a sharp increase of older age employees in the workforce by 2024.[6]

Age	2014	2024	Annual growth rate 2014-2024
20 to 24	70.8%	68.2%	–0.4%
25 to 34	81.2%	81.3%	0.0%
35 to 44	82.2%	81.7%	–0.1%
45 to 54	79.6%	81.0%	0.2%
55 to 59	71.4%	74.2%	0.4%
60 to 64	55.8%	58.8%	0.5%
65 to 69	31.6%	36.2%	1.4%
70 to 74	18.9%	22.8%	1.9%
75 to 79	11.3%	14.4%	2.5%

As a result, we can expect that there will continue to be changes in demographics as to what makes up full-time employees content in the future:

- The demographics of the full-time benefit eligible population can be expected to change drastically from what it is today with older groups and more flexible work schedules than even those seen now.
- What can be done to further incent the involvement of younger generations to participate in the workforce of the future? Historical participation dropped from 66% to less than 63% from the 2007-8 recession to today's rates.[7]
- AI developments become even more important in maintaining productivity levels as the workforce continues to age.
- Continued development of AI, automation, and robots have lead governments across the globe to entertain the concept of the "Basic Income," a government supported minimum income level.[8]

Conclusion

As underwriting organizations observe the trends associated with changes in demographics and increased usage of AI, we should take advantage of growth opportunities, and avoid those areas that will experience continued declines in order to differentiate ourselves from both a profitability and growth perspective.

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