

TIME TO EMPLOYMENT is critical for understanding how to lessen the burden of unemployment.

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Time to employment, or the amount of time it takes for graduates to obtain employment following their educational exit, is associated with a variety of outcomes. For example, finding a job after graduation is associated with better immediate and long-term mental, physical, and social health.¹⁻⁷ In contrast, unemployment, underemployment (i.e., taking a job that is underpaid and/or that the graduate is overqualified for), and precarious employment (e.g., insecure temporary positions, skill-inadequate jobs) have been linked to job dissatisfaction, mental health problems, and low employee retention.¹⁻⁷ Further, individuals who are not involved in employment, education, or training create substantial economic costs both nationally and for the state through lowered human capital, less tax revenue and higher borrowing, and inefficient resource usage.7-9 Thus, tracking time to employment can provide important insight into what is necessary to reduce the costs and consequences of unemployment and underemployment.

Time to employment is influenced by individual demographic factors, including age and socioeconomic status.

AGE. Young individuals tend to face lower wages and fewer career opportunities^{10,11} when job searching, which leads to longer times to employment and higher unemployment rates. Young individuals constitute 40 percent of the world's total unemployed, with a global unemployment rate of 13.1 percent (15.5 percent for the U.S.)—nearly triple that of adults.7 These high age-based unemployment rates are likely a consequence of young individuals having little to no work experience upon graduation, which may contribute to employer hiring biases⁶ and difficulty securing a job with good wages and career opportunities.10,11 This low-wage, lowopportunity job market subsequently leads many graduates to delay their time to employment, either intentionally or not, thus leading to unemployment. underemployment, precarious employment.^{10,11} In addition to the negative consequences associated with these conditions, early unemployment can lead to "low-pay-no-pay" cycles and increased career complexity (e.g., lower stability).¹²



socioeconomic status contributes to time to employment, as those with greater financial means tend to find employment opportunities more quickly and easily. Middle-class students have been found to be more willing to engage in network-based job attainment than working-class students.¹³ In contrast, working-

class students tend to reject the use of social capital to obtain employment, and are reported instead to be preoccupied with their legitimacy, or merit, as workers.¹³ Research suggests students' hyperfocus on merit varies by socioeconomic status and can hinder employment-seeking through networking.¹³

EDUCATIONAL ATTAINMENT AND GENDER HAVE BEEN FOUND TO WORK IN TANDEM AS AN INFLUENCE ON TIME TO EMPLOYMENT. Employers tend to evaluate productivity potential and trainability of applicants based on education/qualification and gender, which can disadvantage particular groups and young individuals from obtaining timely employment.^{6,11,14}



Academic performance, institutional prestige, and overall level of education can impact hiring decisions, 6,14,15 thereby impacting the time to employment for certain individuals. Those with lower academic performance and those who attend and/or obtain a degree from less prestigious institutions face greater difficulty in securing timely employment after graduation. 6,15 Likewise, those with lower job qualifications or lower education tend to have a higher probability of unemployment or otherwise not involved in education or training. For example, degree completion is associated with employment for postsecondary certificates as well as associate degrees, though overall employment rates are higher for associate degrees than postsecondary certificates, regardless of completion. Indeed, 72 percent of postsecondary certificate completers were employed after three years, compared with 59 percent of non-completers, while 77 percent of associate degree completers were employed after three years, compared with 70 percent of non-completers.



Gender biases have also been identified as influential to employment decisions, with women being more likely to struggle with obtaining timely employment.

Overlapping with educational attainment and institutional prestige, women whose degrees are from less prestigious universities, at all degree levels, are less likely to be hired for university faculty positions than men,¹⁵ thus prolonging their time to employment. This same gender bias is seen in employment patterns across English, psychology, and science, technology, engineering, and mathematics (STEM) fields.^{3,17} As a whole, gender biases contribute to longer times to employment among women, which can be seen in global rates of unemployment being substantially higher among women (34.4 percent) than men (9.8 percent).¹¹ Similarly, national trends among 25-year-olds to 54-year-olds indicate women as being less involved in the labor force than men (77.5 percent compared to 89.4 percent).¹⁸ The financial consequences of furthered time to employment and gender biases contribute to women living in poverty more often than men. Nebraska is ranked 10th nationally for rates of poverty among women, with 13.7 percent of women in poverty compared with 11.6 percent of men.¹⁹

POSTSECONDARY EMPLOYMENT AND TRAINING OPPORTUNITIES CAN POSITIVELY INFLUENCE GRADUATES' TIME TO EMPLOYMENT.



Employment during postsecondary education. Student employment throughout students' postsecondary education positively impacts their ability to more quickly find a job upon graduation. While the financial strain of student loans has been thought to influence time to employment, this strain leads students to emphasize work experiences in college.²⁰ Students' increased experience is subsequently linked to increased probability of finding a full-time job after graduation.²⁰ Among public two-year graduates, for example, 79 percent of those who worked full-time during their first year were employed 2 years after graduation, compared with 60 percent of those who worked part-time and 42 percent of those who did not work.²¹



Training and support during postsecondary education. Training and support during postsecondary education can contribute to more timely, appropriate employment. Employee mismatch, or the education and training obtained not aligning with that which is required, is a strong predictor of lower employee success and retention.²² Because higher education work placements that hold more potential to develop into permanent positions often offer more appropriate "real life" training, new graduates with these experiences face less mismatch during their search for employment.²² Indeed, institutions and their support systems that facilitate school-to-work transitions positively influence time to employment, especially for young individuals.¹¹ Thus, increasing practical aspects of degree programs is recommended.²² Specifically, high-contact-hour, multicomponent (classroom and work-based) approaches have been found to be more effective in increasing employment among those who are not in employment, education, or training.⁷

LACK OF AVAILABLE WORK AND BROADER ECONOMIC CONSIDERATIONS LEAD TO PROLONGED TIME TO EMPLOYMENT, ESPECIALLY FOR YOUNG INDIVIDUALS WHOSE INTERNSHIP AND EXPERIENTIAL-BASED NEEDS ARE MORE NEGATIVELY IMPACTED.^{11,23} Lack of availability of full-time work increases individuals' time to employment, especially for young individuals who are more likely to struggle finding jobs and/or to hold out if they cannot find a job that suits their preferences.¹¹ Because employers' reluctance to provide on-the-job training is increasing, young individuals who lack experience are facing fewer job opportunities.¹¹ This issue with needing to gain experience for employment, thus prolonging time to employment, was exacerbated by the COVID-19 pandemic.



Younger individuals who cannot obtain internships and training tend to struggle finding jobs and/or hold out if they cannot find a job that suits their preferences, thus delaying their time to employment.^{11,23} Struggles in finding employment and/or training following the COVID-19 pandemic contributed to 28 percent of college graduates rethinking their career paths,²⁴ and 38 percent of students reported feeling they were missing out if their first job was remote.²⁵



Students value internships as a means of gaining skills and "trial-running" a position. As a result of canceled experiences and lack of training opportunities during COVID-19, 46.6 percent of students reported the value of internships as having increased.²⁵ While 61.3 percent of students surveyed had planned to complete an in-person summer internship in 2020, 50 percent of all summer internships were canceled due to COVID-19.²⁵ Indeed, of students scheduled to complete a summer internship, 61 percent reported their internship had been canceled and they were unable to find another opportunity, 23 percent indicated their internship had switched to a remote position, and 16 percent were continuing in their scheduled internship as planned or had found an alternative opportunity.²⁵

TIME TO EMPLOYMENT, THOUGH OFTEN THOUGHT TO BE A PERMANENT SWITCH FROM UNEMPLOYED TO NOT, ALSO INVOLVES NUANCED CAREER DECISIONS AND ADJUSTMENTS.

Graduates will often take a variety of temporary jobs or internships before landing a salaried position, and the job-searching phase should be considered as a holistic career mechanism rather than a static switch when measuring time to employment.^{26,27}



Individuals, especially younger ones, residing in the U.S. tend to change jobs frequently, with unemployment appearing as short bouts rather than one long experience.¹⁴ When looking beyond static outcomes, the first 50 months following graduation typically break down into 20 percent of months spent unemployed, 12.8 percent of months spent in part-time employment, and 4.3 percent of months spent holding multiple jobs.²⁷



To address such nuance, the U.S. Census Bureau specifically examines stable jobs (i.e., when an individual receives earnings from the same employer for three consecutive quarters of the calendar year) when considering employment outcomes, with sources such as the Longitudinal Employer-Household Dynamics (LEHD) data.²⁸

- Buckman, J. E. J., Stott, J., Main, N., Antonie, D. M., Singh, S., Naqvi, S. A., Aguirre, E., Wheatley, J., Cirkovic, M., Leibowitz, J., Cape, J., Pilling, S., & Saunders, R. (2023). Understanding the psychological therapy treatment outcomes for young adults who are not in education, employment, or training (NEET), moderators of outcomes, and what might be done to improve them. *Psychological Medicine*, 53(7), 2808–2819. https://doi.org/10.1017/S0033291721004773
- Drum, D. J., Brownson, C., Burton Denmark, A., & Smith, S. E. (2009). New data on the nature of suicidal crises in college students: Shifting the paradigm. *Professional Psychology: Research and Practice, 40*(3), 213–222. https://doi.org/10.1037/a0014465
- Guo, T., Xia, F., Zhen, S., Bai, X., Zhang, D., Liu, Z., & Tang, J. (2020). Graduate employment prediction with bias. *Proceedings of the AAAI Conference on Artificial Intelligence, 34*(01), Article 01. https://doi.org/10.1609/aaai.v34i01.5408
- Pratap, P., Dickson, A., Love, M., Zanoni, J., Donato, C., Flynn, M. A., & Schulte, P. A. (2021). Public health impacts of underemployment and unemployment in the United States: Exploring perceptions, gaps and opportunities. *International Journal of Environmental Research and Public Health*, 18(19), Article 19. https://doi.org/10.3390/ijerph181910021
- Westefeld, J. S., Homaifar, B., Spotts, J., Furr, S., Range, L., & Werth, J. L. (2005). Perceptions concerning college student suicide: Data from four universities. Suicide and Life-Threatening Behavior, 35(6), 640–645. https://doi.org/10.1521/suli.2005.35.6.640
- Xia, F., Guo, T., Bai, X., Shatte, A., Liu, Z., & Tang, J. (2022). SUMMER: Bias-aware prediction of graduate employment based on educational big data. ACM/IMS Transactions on Data Science, 2(4), 39:1–24. https://doi.org/10.1145/3510361
- Mawn, L., Oliver, E. J., Akhter, N., Bambra, C. L., Torgerson, C., Bridle, C., & Stain, H. J. (2017). Are we failing young people not in employment, education or training (NEETs)? A systematic review and meta-analysis of re-engagement interventions. Systematic Reviews, 6(1), 16. https:// doi.org/10.1186/s13643-016-0394-2
- Yetley, M. J. (1989). The economic cost of unemployment and underemployment. U.S. Department of Agriculture, Economic Research Service, Agriculture and Rural Economy Division. https://doi. org/10.22004/ag.econ.278192
- Pettinger, T. (2019, June 28). Economic costs of unemployment. www. economicshelp.org. https://www.economicshelp.org/macroeconomics/ unemployment/costs/
- Gebel, M. (2015). Labor market instability, labor market entry, and early career development. In *Emerging Trends in the Social and Behavioral Sciences* (pp. 1-16). John Wiley & Sons, Ltd. https://doi. org/10.1002/9781118900772.etrds0198
- Kalleberg, A. L. (2020). Labor market uncertainties and youth labor force experiences: Lessons learned. The ANNALS of the American Academy of Political and Social Science, 688(1), 258–270. https://doi. org/10.1177/0002716220913861
- Manzoni, A., & Mooi-Reci, I. (2011). Early unemployment and subsequent career complexity: A sequence-based perspective. Schmollers Jahrbuch: Journal of Applied Social Science Studies / Zeitschrift für Wirtschafts- und Sozialwissenschaften, 131(2), 339–348. https://doi.org/10.3790/schm.131.2.339
- Abrahams, J. (2017). Honourable mobility or shameless entitlement? Habitus and graduate employment. *British Journal of Sociology of Education*, 38(5), 625-640. https://doi.org/10.1080/01425692.2015.11311

- Quintini, G., & Manfredi, T. (2009). Going separate ways? School-towork transitions in the United States and Europe. OECD. https://doi. org/10.1787/221717700447
- Clauset, A., Arbesman, S., & Larremore, D. B. (2015). Systematic inequality and hierarchy in faculty hiring networks. Science Advances, 1(1), e1400005. https://doi.org/10.1126/sciadv.1400005
- Burns, R. & Bentz, A. H. (2020). First-time subbaccalaureate students: An overview of their institutions, programs, completion, and labor market outcomes after 3 years. *Institute for Education Sciences*. https://nces.ed.gov/Pubs2020/2020035.pdf
- Ford, H. L., Brick, C., Blaufuss, K., & Dekens, P. S. (2018). Gender inequity in speaking opportunities at the American Geophysical Union Fall Meeting. *Nature Communications*, 9(1), Article 1. https://doi. org/10.1038/s41467-018-03809-5
- Labor force status of women and men. (n.d.). U.S. Department of Labor. Retrieved August 5, 2023, from http://www.dol.gov/agencies/wb/data/widget
- Institute for Women's Policy Research. (2018, March). The economic status of women in Nebraska. (Fact Sheet IWPR #R508). https:// statusofwomendata.org/wp-content/themes/witsfull/factsheets/ economics/factsheet-nebraska.pdf
- Froidevaux, A., Koopmann, J., Wang, M., & Bamberger, P. (2020).
 Is student loan debt good or bad for full-time employment upon graduation from college? *The Journal of Applied Psychology, 105*(11), 1246–1261. https://doi.org/10.1037/apl0000487
- 21. Velez, E. D., Bentz, A., & Arbeit, C. A. (2018). Working before, during, and after beginning at a public 2-year institution: Labor market experiences of community college students. *Institute for Education Sciences (IES)*. https://nces.ed.gov/pubs2018/2018428.pdf
- McGuinness, S., Whelan, A., & Bergin, A. (2016). Is there a role for higher education institutions in improving the quality of first employment? *The B.E. Journal of Economic Analysis & Policy, 16*(4). https://doi.org/10.1515/bejeap-2016-0174
- Chauvel, L. (2010). The long-term destabilization of youth, scarring effects, and the future of the welfare regime in post-Trente Glorieuses France. French Politics, Culture & Society, 28, 74–96. https://doi. org/10.3167/fpcs.2010.280305
- 24. Wheelwright, T. (2020, October 5). *Best States for New Grads to Start Their Career in 2020*. Business.org. https://www.business.org/hr/best-states-for-new-grads/
- 25. COVID-19 Impact Report. (n.d.). CareerUp. Retrieved August 5, 2023, from https://careerup.com/remote-internship-statistics/
- 26. Brzinsky-Fay, C. (2007). Lost in transition? Labour market entry sequences of school leavers in Europe. *European Sociological Review,* 23(4), 409-422. https://www.jstor.org/stable/4621235
- Witteveen, D. (2017). Precarious early careers: Instability and timing within labor market entry. In A. L. Kalleberg & S. P. Vallas (Eds.), Precarious Work (Vol. 31, pp. 365–398). Emerald Publishing Limited. https://doi.org/10.1108/S0277-283320170000031012
- 28. United States Census Bureau. (2019). *Quarterly Workforce Indicators* 101. https://lehd.ces.census.gov/doc/QWI_101.pdf

