

Comments:

Connective Technology in Today's Automated Society: Leaving Individuals with Intellectual Disabilities Harmfully Disconnected

Julia Gentile*

ABSTRACT

In 1990, when Congress first passed the Americans with Disabilities Act (ADA) to address the salient problem of discrimination on the basis of disability in employment, the internet was only in its infancy. Since then, technology has moved into the forefront of everyday life. Detrimentally, individuals with intellectual disabilities are much less likely to have access to and utilize the internet than their non-disabled counterparts. Moreover, the unemployment rate for adults with intellectual disabilities continues to be more than twice as high as those without disabilities. The American employment economy's increasing dependence on expensive, sophisticated technological tools wholly threatens the effectiveness of the ADA's nondiscrimination mandate when asserted to protect individuals with intellectual disabilities in employment.

Scholars as early as 2002 identified the emerging nexus between the increasingly automated employment economy and the ADA's prejudicial

* J.D. Candidate, The Pennsylvania State University School of Law, 2022.

balancing test. What could not possibly have been predicted, however, is the speed at which automation would transform the modern workplace in light of the COVID-19 pandemic. Millions of employers are now taking advantage of connective technologies to mediate interpersonal connection and maximize employment opportunities. For individuals with intellectual disabilities, virtual interaction, if even accessible, is in many cases an inadequate substitute.

This Comment addresses the current, dismal employment landscape for individuals with intellectual disabilities and evaluates the shortcomings of statutory protections aimed both at preventing discrimination in employment on the basis of disability and fostering the development of individuals with disabilities in education. To improve employment outcomes and productivity in adulthood for individuals with intellectual disabilities, this Comment calls for crucial reform at the special education level. This Comment recommends, in part, that the Individuals with Disabilities Education Act (IDEA) require educators to begin planning for students' post-secondary transitions by the time students turn 13. In addition, students' Individualized Education Plans (IEPs) should incorporate substantive technological competency goals.

Table of Contents

I.	INTRODUCTION	519
II.	BACKGROUND.....	523
	A. <i>Employment: Adults with Intellectual Disabilities</i>	523
	1. What is "Intellectual Disability"?	523
	2. Discrepancies in Employment Outcomes	525
	3. Importance of Meaningful Employment	526
	B. <i>The Technology-Driven Economy: An Effective Barrier</i>	527
	1. An Early Prediction.....	528
	2. Continuing Discrepancies in Technology Access	529
	C. <i>Americans with Disabilities Act</i>	530
	1. Basic Provisions	531
	2. The "Balancing Test:" A Threat to Individuals with Intellectual Disabilities.....	532
	D. <i>Special Education Law</i>	534
	1. Individuals with Disabilities Education Act.....	534
	2. Individualized Education Plans	537
III.	ANALYSIS	540
	A. <i>Transition Services Realized Prior to the Age of 13</i>	542
	B. <i>Introduction of Substantive, Technological Competency Components Aimed at Fostering Enhanced Technological Competency</i>	544
IV.	CONCLUSION	545

I. INTRODUCTION

Approximately 20 years ago, in the wake of one of the most rapidly advancing technological periods the United States has ever endured,¹ Jane Vollmert was an employee of the Wisconsin Department of Transportation (“the Department”) where she worked for nearly 21 years.² At the Department, Jane processed applications for special license plates for individuals with disabilities and for organizations serving disabled populations.³ Markedly, Jane herself had an intellectual disability,⁴ which ultimately affected her ability to learn.⁵

Despite satisfactorily performing her job at the Department for over two decades, Jane was demoted soon after the Department transitioned from a mainframe technology system⁶ to a new, Windows-based system.⁷ The Department’s decision to implement the new, likely more efficient platform rendered Jane unable to perform the work she previously performed for the entirety of her time at the Department.⁸ While the

1. See Charles S. Gascon & Evan Karson, *Growth in Tech Sector Returns to Glory Days of the 1990s*, FED. RES. BANK OF ST. LOUIS (July 25, 2017), <https://bit.ly/38qnx0> (“The technology sector has a dynamic history of expansion and contraction. Its first high-growth period lasted from 1990 to 2000, a time traditionally thought of as the ‘dot-com boom’ or the ‘tech bubble.’ National employment in technology sector industries shot up by 36 percent over the period.”); see also Joseph Stiglitz, *The Roaring Nineties*, THE ATL. (Oct. 2002), <https://bit.ly/32Hx1Zd> (“There is no question that the nineties were good years. Jobs were created, technology prospered, inflation fell, poverty was reduced.”).

2. See *Vollmert v. Wis. Dep’t of Transp.*, 197 F.3d 293, 294 (7th Cir. 1999).

3. See *id.*

4. The term “intellectual disability” is “used when a person has certain limitations in cognitive functioning and skills, including communication, social and self-care skills.” See *What Is Intellectual Disability?*, SPECIAL OLYMPICS, <https://bit.ly/3CxCPnF> (last visited Oct. 30, 2021) [hereinafter *What Is Intellectual Disability?*]; see also *infra* Section II.A.1.

5. See *Vollmert*, 197 F.3d at 294 (“[Jane] herself suffers from disabilities including dyslexia and learning disabilities . . .”); see also *id.* at 299 (“[Jane’s] learning disability adversely impacted the speed rather than ability to acquire information.”); *id.* at 296 (“[Jane] has a long-standing neuro-cognitive disorder, delays in verbal intelligence, and deficits in basic skills, learning and memory functions that together result in dyslexia and learning disabilities.”).

6. See *Mainframe*, MERRIAM-WEBSTER, <https://bit.ly/3cY2Naf> (last visited Nov. 8, 2020) (defining mainframe as “a large, powerful computer that can handle many tasks concurrently and is usually used commercially”).

7. See *Vollmert*, 197 F.3d at 295 (“[A] new computer system was installed which replaced the mainframe system with a network of personal computers employing Windows-based rather than text-based software.”); see also *Windows-based*, PCMag ENCYCLOPEDIA, <https://bit.ly/3uc50Fb> (last visited Nov. 8, 2021) (defining Windows-based as “hardware and software that runs a version of Microsoft Windows”).

8. See *Vollmert*, 197 F.3d at 295; see also Mary L. Dispenza, Note, *Overcoming A New Digital Divide: Technology Accommodations and the Undue Hardship Defense Under the Americans with Disabilities Act*, 52 SYRACUSE L. REV. 159, 170 (2002).

Department provided Jane some technological accommodations⁹ to acclimate her with the new software, the training ultimately failed to account for her intellectual disability.¹⁰

In addition to implementing the brand-new software, the Department simultaneously augmented Jane's job description to include proficiency with the new Windows-based computer system.¹¹ In effect, the Department heightened the essential functions of Jane's job.¹² Both the expensive nature of alternative, intensive training options and the inaccessibility of the new technology created an inconceivable paradox: if Jane conceded that she was unable to perform the essential functions of her job, she would no longer be considered a "covered" individual¹³ under the scope of the Americans with Disabilities Act (ADA),¹⁴ and would thus lose protection of the statute's nondiscrimination mandate.¹⁵ Even further, assuming the Department was a rational, profit-maximizing entity,¹⁶ the decision to demote or fire Jane—as opposed to implementing a more rigorous and specialized training program—was likely the Department's most attractive choice.¹⁷

Detrimentially, stories like Jane's have become pervasive in employment for individuals with intellectual disabilities.¹⁸ In 1990, when Congress first passed the ADA to address the salient problem of discrimination on the basis of disability in employment, the internet was

9. See *Vollmert*, 197 F.3d at 296 (“[T]he union president wrote a letter on [Jane’s] behalf requesting that a specialist be brought in to assist her in her training. Such learning disability specialists were available at no cost from the Wisconsin Department of Vocational Rehabilitation. [The request nonetheless was denied] because [the Section Chief] believed that Vollmert had received adequate training for several months . . .”).

10. See *id.* at 302.

11. See *id.* at 297–98.

12. See *id.* (“The Department further identified the skills needed for [Jane’s] position as including the use of a personal computer mouse, navigation of the Windows-based software and department databases, and exercise of judgment concerning the entry of data.”).

13. Only “qualified individual[s] with a disability,” individuals with a disability “who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires,” are considered to be “covered” under the Act. See 42 U.S.C. § 12111(8); see also *infra* Section II.C.1.

14. See Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101–12213; see also *infra* Section II.C.

15. See *Vollmert*, 197 F.3d at 294; see also Dispenza, *supra* note 8, at 170–71.

16. Profit maximization “is assumed to be the dominant goal of a typical firm.” See *Profit Maximisation*, ECON. ONLINE (Jan. 29, 2020), <https://bit.ly/3dypstJ>. In effect, this means “selling a quantity of a good or service, or fixing prices, where total revenue (TR) is at its greatest above total cost (TC).” See *id.*

17. See *Vollmert*, 197 F.3d at 294, 296–97; see also Dispenza, *supra* note 8, at 170–71.

18. See *What Is Intellectual Disability?*, *supra* note 4; see also *infra* Section II.A.

only in its infancy.¹⁹ Since then, technology has moved into the forefront of everyday life.²⁰ Evidenced by Jane's story, the ADA, in light of vast technological advancement in the workplace, arguably began to lose its effectiveness as early as 1999.²¹ More recently, in light of the COVID-19 pandemic,²² new technology has enabled wide-spread remote working and learning, teleconferencing, and co-working space—completely reshaping the modern workplace.²³ While wide-spread automation in the workplace has been perceived as a positive transformation by most, the law, specifically the ADA, has prejudicially failed to keep pace.²⁴ Connective technology in today's automated society is leaving individuals with intellectual disabilities harmfully disconnected.²⁵

In acknowledging that the ADA is ineffective at protecting individuals with intellectual disabilities from the disproportionate effects of rapid automation, this Comment demonstrates that vast technological advancement and increasing automation in the workplace constitute an effective barrier to individuals with intellectual disabilities in employment.²⁶

Part II of this Comment defines “intellectual disability,”²⁷ addresses the current, dismal employment landscape for individuals with intellectual disabilities,²⁸ and conveys the importance of access to employment in attaining a meaningful quality of life.²⁹ Part II next discusses the technology-driven economy³⁰ and its detrimental, disproportionate effect on individuals with intellectual disabilities.³¹ Part II later explores the statutory protections aimed both at preventing discrimination in employment on the basis of disability and fostering the development of individuals with intellectual disabilities in education: the Americans with

19. See Josh Loevy, *Internet and the ADA: When the Law isn't Enough*, LOEY & LOEY (Aug. 7, 2019), <https://bit.ly/32qBrDm>.

20. See *id.*

21. See *Vollmert*, 197 F.3d at 294; see also *infra* Part III.

22. COVID-19 is “an infectious disease caused by a newly discovered coronavirus. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes.” See *Symptoms and Prevention*, REPRESENTATIVE AMI BERA, M.D., <https://bit.ly/3mt6UiS> (last visited Oct. 31, 2021); see also *Coronavirus Disease (Covid-19)*, WORLD HEALTH ORG., <https://bit.ly/3qOpkK6> (last visited Jan. 1, 2021).

23. See Kim Parker et al., *How the Coronavirus Outbreak Has — and Hasn't — Changed the Way Americans Work*, PEW RSCH. CTR. (Dec. 9, 2020), <https://pewrsr.ch/2Zzyvm7>.

24. See Loevy, *supra* note 19.

25. See discussion *infra* Part III.

26. See discussion *infra* Part III.

27. See discussion *infra* Section II.A.1.

28. See discussion *infra* Section II.A.2.

29. See discussion *infra* Section II.A.3.

30. See discussion *infra* Section II.B.

31. See discussion *infra* Section II.B.2.

Disabilities Act³² (ADA) and the Individuals with Disabilities Education Act (IDEA).³³ Part II concludes with a delve into the nuances of the current requirements of students' Individualized Education Plans (IEPs).³⁴

Part III of this Comment calls for crucial reform at the special education level.³⁵ Better preparing students with intellectual disabilities for the enhanced challenges associated with post-secondary employment opportunities in today's automated society will diminish the prejudicial paradox faced by many individuals like Jane.³⁶ First, the IDEA should require IEP creators³⁷ to plan for students' post-graduation "transitions" by the time students turn 13.³⁸ Second, an additional inquiry should be added to the already-mandated components of students' IEPs, calling for IEP creators to compose individualized, comprehensive plans aimed at students' achievement of substantive technological competency goals.³⁹ The intent should be to create career-oriented goals by achieving the highest level of technological competency prior to students' graduations.⁴⁰

Ultimately, rapid workplace automation wholly threatens the effectiveness of the ADA's nondiscrimination mandate when asserted to protect individuals with intellectual disabilities in employment.⁴¹ Better preparing individuals with intellectual disabilities for post-secondary employment opportunities by building on the strengths and interests of

32. See discussion *infra* Section II.C.

33. See discussion *infra* Section II.D.1.

34. See discussion *infra* Section II.D.2.

35. See discussion *infra* Part III.

36. See discussion *infra* Part III.

37. IEP teams consist of:

- (i) the parents of a child with a disability;
- (ii) not less than 1 regular education teacher of such child (if the child is, or may be, participating in the regular education environment);
- (iii) not less than 1 special education teacher, or where appropriate, not less than 1 special education provider of such child;
- (iv) a representative of the local educational agency who--
 - (I) is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities;
 - (II) is knowledgeable about the general education curriculum; and
 - (III) is knowledgeable about the availability of resources of the local educational agency;
- (v) an individual who can interpret the instructional implications of evaluation results, who may be a member of the team described in clauses (ii) through (vi);
- (vi) at the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and
- (vii) whenever appropriate, the child with a disability.

See 20 U.S.C. § 1414(1)(B); see also 34 C.F.R. § 300.344(a)(1)–(7) (2000).

38. See discussion *infra* Section III.A.

39. See discussion *infra* Section III.B.

40. See discussion *infra* Part III.

41. See discussion *infra* Part IV.

students with intellectual disabilities from an earlier age and providing such students with substantive technological competency training throughout their time in secondary school will diminish the prejudicial paradox that threatens many.⁴²

II. BACKGROUND

An adept understanding of the interplay between the discrepancies in employment outcomes for adults with intellectual disabilities, increasing automation in the workplace, and the effective shortcomings of relevant, protective statutory provisions is necessary to fully grasp the pressing need for substantive and procedural reform at the special education level. First, this Part outlines the current, dismal employment landscape for adults with intellectual disabilities.⁴³ Next, this Part evaluates the rapidly developing technology-driven economy and considers its disproportionate effect on individuals with intellectual disabilities.⁴⁴ Further, this Part discusses the relevant statutory provisions aimed at combatting discrimination on the basis of disability and fostering the development of individuals with intellectual disabilities: the ADA⁴⁵ and the IDEA.⁴⁶ This Part concludes with a delve into the shortcomings of current IEP requirements.⁴⁷

A. *Employment: Adults with Intellectual Disabilities*

Individuals with intellectual disabilities are employed at a disproportionate rate⁴⁸ compared to those with no disabilities, ultimately threatening such individuals' sense of identity, self-esteem, and access to a meaningful quality of life.⁴⁹

1. What is "Intellectual Disability"?

"Intellectual disability" is a term "used when an individual has certain limitations in cognitive functioning and skills, including communication, social, and self-care skills."⁵⁰ These limitations "cause a child to develop

42. See discussion *infra* Part IV.

43. See discussion *infra* Section II.A.

44. See discussion *infra* Section II.B.

45. See Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101–12213; see also discussion *infra* Section II.C.

46. See Individuals with Disabilities Education Act, 20 U.S.C. §§ 1400–1450; see also discussion *infra* Section II.D.1.

47. See discussion *infra* Section II.D.2.

48. The unemployment rate for adults with intellectual disabilities is more than twice as high as those without disabilities. See Special Olympics, *Unemployment of People with Intellectual Disabilities More than Twice as High as General Population*, CISION (Feb. 17, 2014, 11:14 AM), <https://prn.to/35PQLfh> [hereinafter *Unemployment*]; see also discussion *infra* Section II.A.2.

49. See discussion *infra* Section II.A.3.

50. See *What Is Intellectual Disability?*, *supra* note 4.

and learn more slowly or differently than a typically developing child.”⁵¹ An individual is considered to have an intellectual disability if he or she meets three criteria: (1) his or her “IQ is below 70–75”;⁵² (2) “significant limitations” exist “in two or more adaptive areas”;⁵³ and (3) the “condition manifests itself before the age of 18.”⁵⁴

For example, Down syndrome, a genetic disorder that occurs when an individual is born with a full, or partial, extra copy of chromosome 21 in their DNA, is the most common cause of intellectual disability in children.⁵⁵ Other intellectual disabilities include: Fragile X syndrome,⁵⁶ Developmental Learning Disorders,⁵⁷ and Autism Spectrum Disorder.⁵⁸

Notably, the term “intellectual disability” vehemently replaces the terms “mental retardation” and “mentally retarded” in federal health, education, and labor policy.⁵⁹ The pejorative term, “retard,” clinically introduced with ostensibly good intentions, has been widely used in today’s society to insult, degrade, and demean individuals with intellectual

51. *See id.*

52. “IQ” means “intelligence quotient.” *See* Ann Pietrangelo, *What IQ Measurements Indicate — and What They Don’t*, HEALTHLINE (Jan. 28, 2020), <https://bit.ly/3pnRgEv>; *id.* (“IQ tests are tools to measure intellectual abilities and potential.”); *id.* (“They are designed to reflect a wide range of cognitive skills, such as reasoning, logic, and problem-solving.”); *id.* (“IQ scores follow a bell curve.”); *id.* (“The very peak of the bell represents the average score of 100.”).

53. “Adaptive areas” include skills that are needed to live, work, and play in the community, such as communication abilities and self-care. *See What Is Intellectual Disability?*, *supra* note 4.

54. *See id.*

55. *See Types of Intellectual Disabilities*, ARUMA, <https://bit.ly/2U8pxtq> (last visited Nov. 8, 2020).

56. *See generally What is Fragile X Syndrome?*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://bit.ly/2GEF3dg> (last visited Nov. 8, 2020) (“Fragile X syndrome (FXS) is a genetic disorder. FXS is caused by changes in a gene that scientists called [the fragile X mental retardation 1] (FMR1) gene when it was first discovered. The FMR1 gene usually makes a protein called [fragile X mental retardation protein] (FMRP). FMRP is needed for normal brain development. People who have [fragile X-associated] FXS do not make this protein.”).

57. *See generally Learning Disorders in Children*, CTR. FOR DISEASE CONTROL & PREVENTION, <https://bit.ly/2lbQ6uZ> (last visited Nov. 8, 2020) (“Many children may struggle in school with some topics or skills from time to time. When children try hard and still struggle with a specific set of skills over time, it could be a sign of a learning disorder. Having a learning disorder means that a child has difficulty in one or more areas of learning, even when overall intelligence or motivation is not affected.”).

58. *See generally What is Autism Spectrum Disorder*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://bit.ly/3pUzXOs> (last visited Nov. 8, 2020) (“Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication, and behavioral challenges The learning, thinking, and problem-solving abilities of people with ASD can range from gifted to severely challenged. Some people with ASD need a lot of help in their daily lives; others need less.”).

59. *See, e.g.*, 32 C.F.R. §§ 104–05, 222, 300, 361, 373, 385, 668, 674 (2016); *see also Rosa’s Law Signed into Law by President Obama*, SPECIAL OLYMPICS, <https://bit.ly/38nn6eJ> (last visited Nov. 7, 2020) [hereinafter *Rosa’s Law*].

disabilities.⁶⁰ Generating unanimous support in passing both the House of Representatives and the Senate, Rosa's Law,⁶¹ signed into law by President Obama in 2010, conveys the United States' steadfast position on the importance of people first language (i.e., 'individual with a disability' not 'disabled individual').⁶²

Data pertaining to the lives of and employment outcomes for individuals with intellectual disabilities is limited even though intellectual disability is the most common form of developmental disability.⁶³ Nearly 6.5 million individuals in the United States and as many as 200 million people worldwide have some level of intellectual disability.⁶⁴

2. Discrepancies in Employment Outcomes

Dismally, the unemployment rate amongst individuals with a disability continues to be about twice as high as the rate for those without a disability.⁶⁵ In 2019, across all levels of education, individuals with a disability were significantly less likely to be employed than their counterparts with no disability.⁶⁶ Even further, a large proportion of individuals with a disability, about eight in every ten, were considered "not in the labor force," neither employed nor unemployed, compared with only three in every ten with no disability.⁶⁷

The above-mentioned discrepancies are startlingly amplified when considering employment amongst individuals with *intellectual disabilities*.⁶⁸ While data pertaining to employment amongst individuals with intellectual disabilities is far less reported on, one of the most

60. See Abby Lefebvre, *The Use of the R-Word and Why It's a Problem*, BOS. UNIV. WHEELLOCK COLL. OF EDUC. & HUM. DEV. (Mar. 19, 2015), <https://bit.ly/3qFSr2K> ("The r-word is an exclusive term that furthers negative stereotypes about people with disabilities. It can be hurtful whether it is directed towards a person with a disability or when used as a synonym for 'dumb' or 'stupid.'"); see also Andrew Pulrang, *It's Time to Stop Even Casually Misusing Disability Words*, FORBES (Feb. 20, 2021, 1:27 PM), <https://bit.ly/3k6welu> ("Curbing use of stigmatizing and problematic language makes workplaces safer for diversity, more productive for employees, and friendlier to customers and clients. This should certainly include identifying and ending use of universally offensive disability slurs, like the word 'retarded.'").

61. See *Rosa's Law*, *supra* note 59.

62. Rosa's Law replaced several instances of "mental retardation" with "intellectual disability" in the U.S. Legal Code, making the language in federal laws consistent with that used by the Centers for Disease Control, the World Health Organization, and the American Association on Intellectual and Developmental Disabilities. See *id.*

63. See *What Is Intellectual Disability?*, *supra* note 4.

64. See *id.*

65. See *Persons with a Disability: Labor Force Characteristics Summary*, U.S. BUREAU OF LAB. STAT. (Feb. 26, 2020, 10:00 AM), <https://bit.ly/32LF2fV>.

66. See *id.*

67. See *id.*

68. The unemployment rate for adults with intellectual disabilities is more than twice as high as those without disabilities. See *Unemployment*, *supra* note 48.

comprehensive national surveys ever conducted on adults with intellectual disabilities in the workforce reveals that regardless of the setting in which they work, nearly *all* individuals with intellectual disabilities are underemployed.⁶⁹ In 2014, a mere 34% of adults with intellectual disabilities were employed, and an approximately equal number of those employed worked in a sheltered setting⁷⁰ as opposed to a competitive one.⁷¹

The COVID-19 pandemic⁷² is expected to perpetuate these stark discrepancies in employment outcomes for individuals with intellectual disabilities, making reform at the special education level more vital now than ever before.⁷³ Individuals with intellectual disabilities, as a result of long-time, limited access to meaningful employment, have been “disproportionately isolated long prior to the COVID-19 pandemic.”⁷⁴ The expected “intensification of that isolation stands only to weaken the community for all citizens,” especially those with intellectual disabilities.⁷⁵ While millions of employers around the world are “taking full advantage of screen-based technologies to mediate interpersonal connection” and maximize employment opportunities, “this [remains] an impossibility for many with intellectual and developmental disabilities, for whom virtual interaction—even if accessible—is, [in many cases], an inadequate substitute.”⁷⁶

3. Importance of Meaningful Employment

Despite the predictions of most economic models, work is not solely a source of income, but “provides individuals [with a sense of] identity and individual self-esteem.”⁷⁷ Moreover, access to meaningful

69. “Underemployed” means employed less than full time and earn less than the minimum wage. See *National Snapshot of Adults with Intellectual Disabilities in the Labor Force*, SPECIAL OLYMPICS, <https://bit.ly/3HBilb2> (last visited Feb. 4, 2022).

70. A “sheltered setting” is a setting in which most people have disabilities. See *id.*

71. A “competitive setting” is a setting in which most people do not have disabilities. See *id.*

72. See *Coronavirus Disease (Covid-19)*, *supra* note 22.

73. Since the COVID-19 pandemic began in March 2020, one in five workers with disabilities lost their employment, compared with one in seven workers without disabilities. See Allison Norlian, *Workers with Disabilities Disproportionately Impacted by Covid-19 Pandemic*, FORBES (June 22, 2020, 9:37 AM), <https://bit.ly/3qVs3l3>; see also John N. Constantino et al., *The Impact of COVID-19 on Individuals with Intellectual and Developmental Disabilities: Clinical and Scientific Priorities*, 177 AM. J. PSYCHIATRY 1091, 1092 (2020).

74. See Constantino et al., *supra* note 73.

75. See *id.*

76. See *id.*

77. See Milena Nikolova & Femke Cossen, *What Makes a Job Meaningful?*, BROOKINGS (Apr. 8, 2020), <https://brook.gs/36iIQpC>.

employment is deemed a “pivotal part of human life.”⁷⁸ The COVID-19 pandemic, forcing the near shutdown of many economies around the world,⁷⁹ has brought global attention to an issue that affects individuals with intellectual disabilities invariably, irrespective of the economy’s health.⁸⁰ In general, individuals who are unemployed have lower life satisfaction and happiness and worse mental health than the employed.⁸¹ Further, unemployment, in many cases, “entails being deprived of social identity, status, routine and time structure, and contacts with colleagues.”⁸² The psychological consequences of unemployment for individuals and their families are known to be both “severe and long-lasting.”⁸³

Individuals with intellectual disabilities, now more than ever, face barriers to meaningful employment, and in turn, a meaningful quality of life.⁸⁴ A meaningful quality of life exists for individuals with intellectual disabilities when they, amongst other things, have access to employment that is meaningful to them.⁸⁵

B. *The Technology-Driven Economy: An Effective Barrier*

Nearly 20 years ago, scholars first identified the emerging nexus between the increasingly automated employment economy and the ADA’s balancing test that weighs employees’ needed accommodations against the burden to an employer of providing such accommodations.⁸⁶ Since then, the concept of the workplace has drastically evolved into a virtual environment empowered by new technologies such as smartphones,⁸⁷

78. *See id.*

79. The World Bank “confirmed that the world was in the middle of the worst recession since World War Two.” *See The Virus That Shut Down the World: Economic Meltdown*, UN NEWS (Dec. 30, 2020), <https://bit.ly/2KPaQu6>; *id.* (“Lower-skilled workers were hard hit, in wealthier as well as developing economies.”).

80. *See* Nikolova & Cnossen, *supra* note 77.

81. *See id.*

82. *See id.*

83. *See id.*

84. *See id.*

85. *See Quality of Life*, AAID: AM. ASS’N ON INTELL. AND DEVELOPMENTAL DISABILITIES, <https://bit.ly/3kiucUo> (last visited Nov. 8, 2021).

86. *See, e.g.,* Lisa Eichhorn, *Major Litigation Activities Regarding Major Life Activities: The Failure of the “Disability” Definition in the Americans with Disabilities Act of 1990*, 77 N.C. L. REV. 1405, 1409 (1999); *see also* Carrie Kirby, *Digital Divide Growing/Net Access Use Rises, But Some Groups Lag*, SFGATE (Oct. 17, 2000), <https://bit.ly/2OZspJP> (“Americans of all races and incomes are going online in record numbers, but the ‘digital divide’ still separates some racial minorities, the disabled, and low-income families from the wired world . . .”).

87. *See Smartphone*, MERRIAM-WEBSTER, <https://bit.ly/3scT8AQ> (last visited Nov. 7, 2020) (defining smartphone as “a cell phone that includes additional software functions (such as email or an Internet browser)”).

wireless connectivity,⁸⁸ and virtual⁸⁹ and augmented reality.⁹⁰ In general, individuals with intellectual disabilities are significantly less likely to access and utilize the internet than their non-disabled counterparts.⁹¹ Continuing discrepancies in access to and competent utilization of technology for individuals with intellectual disabilities pose dangerous implications for the future integration of such individuals into the workforce.⁹²

1. An Early Prediction

In 2002, piecing together the independent findings of many prominent scholars,⁹³ Syracuse law student, Mary L. Dispenza, first predicted that Title I of the ADA,⁹⁴ on its own, could not fully integrate individuals with disabilities into the work force.⁹⁵ Title I of the ADA seeks to assure “equality of opportunity, full participation, independent living, and economic self-sufficiency for [individuals with disabilities].”⁹⁶ In light of the rapidly evolving workplace environment at the time,⁹⁷ Dispenza predicted that the ADA was likely to become “less effective as the pace of automation quicken[ed].”⁹⁸

Scholars’ emerging observations concerning the exceptional difficulties faced by plaintiffs seeking protection under the ADA⁹⁹ and the employment economy’s increasing dependence on expensive, sophisticated technologies¹⁰⁰ foreshadowed the very idea that individuals with disabilities will continually be faced with a decision to admit inability

88. See *Wireless Connectivity*, MERRIAM-WEBSTER, <https://bit.ly/3dyPqNP> (last visited Nov. 7, 2020) (defining wireless connectivity as “used to certify the interoperability of wireless computer networking devices”).

89. See *Virtual Reality*, MERRIAM-WEBSTER, <https://bit.ly/3qBzE8F> (last visited Nov. 7, 2020) (defining virtual reality as “an artificial environment which is experienced through sensory stimuli provided by a computer and in which one’s actions partially determine what happens in the environment”).

90. See *Augmented Reality*, MERRIAM-WEBSTER, <https://bit.ly/3unwo2T> (last visited Nov. 7, 2020) (defining augmented reality as “an enhanced version of reality created by the use of technology to overlay digital information on an image of something being viewed through a device (such as a smartphone camera)”).

91. See discussion *infra* Section II.B.2.

92. See discussion *infra* Part III.

93. See Eichhorn, *supra* note 86; see also Ruth Colker, *The Americans with Disabilities Act: A Windfall for Defendants*, 34 HARV. C.R.-C.L. L. REV. 99, 100 (1999); Louis Uchitelle, *Productivity Finally Shows the Impact of Computers*, N.Y. TIMES (Mar. 12, 2000), <https://nyti.ms/3kcaFGM>.

94. See 42 U.S.C. § 12101(a)(8); see also *infra* Section II.C.1.

95. See Dispenza, *supra* note 8, at 160.

96. See 42 U.S.C. § 12101(a)(7).

97. See Stiglitz, *supra* note 1.

98. See Dispenza, *supra* note 8, at 181.

99. See Eichhorn, *supra* note 86; see also Colker, *supra* note 93.

100. See Stiglitz, *supra* note 1; see also Uchitelle, *supra* note 93.

to perform their jobs or lose the protection of the ADA altogether.¹⁰¹ What could not possibly have been predicted, however, is the speed at which automation would transform the modern workplace in light of the COVID-19 pandemic.¹⁰² Despite corrective policy solutions proposed by Dispenza involving shifting monetary incentives toward technology producers, manufacturers, and inventors,¹⁰³ individuals with intellectual disabilities remain largely unprotected by the ADA's nondiscrimination mandate.¹⁰⁴ This Comment builds on many of the observations made about the disproportionate effects of automation in the workplace that have become starkly amplified since 2002.¹⁰⁵

2. Continuing Discrepancies in Technology Access

Being digitally connected, now more than ever before, is crucial to economic and educational advancement and community participation.¹⁰⁶ For individuals with intellectual disabilities, the internet promises to decrease and, in some cases, even remove many of the barriers that may otherwise preclude them from participating in integral daily activities, including employment.¹⁰⁷ While, in theory, individuals with intellectual disabilities stand to gain the most from vastly improving technology and internet accessibility, they are, paradoxically, the societal group "least likely to gain access to and receive the full benefits of the [i]nternet."¹⁰⁸ Of the few studies that have addressed internet accessibility amongst individuals with intellectual disabilities, most have concluded that individuals with intellectual disabilities are "much less likely to have access to and use the [i]nternet than their non-disabled peers."¹⁰⁹

For example, in a study designed to assess the factors affecting individuals with intellectual disabilities in learning to use computer technology, a mere 6.2% of participants knew how to operate a keyboard

101. See discussion *infra* Part III.

102. See *Coronavirus Disease (Covid-19)*, *supra* note 22.

103. See Dispenza, *supra* note 8, at 178–79 (advocating “an additional policy option that would involve shifting incentives toward technology producers, manufacturers, and inventors, many of whom are in the position to interface with individuals with disabilities before the product comes to market.”); *id.* (“This option has the potential both to be more efficient and reduce expense.”).

104. See *Unemployment*, *supra* note 48; see also *infra* Part III.

105. See Dispenza, *supra* note 8, at 160.

106. See Darren Chadwick et al., *Internet Access by People with Intellectual Disabilities; Inequalities and Opportunities*, 5 FUTURE INTERNET 376, 376–77 (July 17, 2013).

107. See *id.* at 378–79.

108. See *id.* at 379.

109. See *id.*

and mouse.¹¹⁰ Moreover, 33.1% of participants were unable to operate the computer system in any capacity.¹¹¹ Further, 92.6% of caregivers reported that although they had a computer in their home or at their workplace, participants with intellectual disabilities were never given any opportunity to use it.¹¹²

In another small-scale survey of adults with intellectual disabilities in the United States, only 25% of participants responded that they had access to the internet.¹¹³ While the data represents individuals' access to the internet nearly seven years ago, approximately 68% of the total United States population had access to the internet that same year—illustrative of the apparent, desolate divide in internet access between populations, irrespective of the time in which the data was collected.¹¹⁴

While the above-referenced studies were conducted at a time in which the internet was arguably less accessible to all than it is today, a more recent 2016 study confirms that individuals with intellectual disabilities are less likely to utilize technology.¹¹⁵ The 2016 study concluded that Americans with disabilities are about three times as likely as those without a disability to say that they never utilize the internet.¹¹⁶ Moreover, when compared with those who do not have a disability, adults with disabilities are approximately 20% less likely to say “they subscribe to home broadband and own a traditional computer, a smartphone, or a tablet.”¹¹⁷

C. *Americans with Disabilities Act*

Signed by President Bush on July 26, 1990, the Americans with Disabilities Act (ADA) was created to address the salient problem of discrimination against the approximately 43 million disabled Americans in critical areas such as employment, housing, public accommodations, education, transportation, communication, recreation, institutionalization, health services, voting, and access to public services.¹¹⁸ In President Bush's own words at the time, “[T]here are a lot of people who, if given access to the workplace, for example, can achieve things . . . But if they

110. See Cecilia Li-Tsang et al., *Factors Affecting People with Intellectual Disabilities in Learning to Use Computer Technology*, 28 INT'L J. OF REHAB. RSCH. 127, 127 (2005).

111. See *id.* at 130.

112. See *id.* at 131.

113. See Chadwick et al., *supra* note 106, at 379.

114. See *id.*

115. See Monica Anderson & Andrew Perrin, *Disabled Americans Are Less Likely to Use Technology*, PEW RSCH. CTR. (Apr. 7, 2017), <https://bit.ly/3BOyR93>.

116. See *id.*

117. See *id.*

118. See Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101–12213.

are denied that, they won't have a shot at the American dream."¹¹⁹ Reflective of that very remark, the ADA intends:

(1) to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities; (2) to provide clear, strong, consistent, enforceable standards addressing discrimination against individuals with disabilities; (3) to ensure that the Federal Government plays a central role in enforcing the standards established . . . on behalf of individuals with disabilities; and (4) to invoke the sweep of congressional authority, including the power to enforce the fourteenth amendment and to regulate commerce, in order to address the major areas of discrimination faced day-to-day by people with disabilities.¹²⁰

Prior to the enactment of the ADA, the primary federal law addressing discrimination against individuals with disabilities was the Rehabilitation Act of 1973,¹²¹ which covered only federal agencies.¹²² The ADA largely expands the Rehabilitation Act's scope of coverage, covering employers, employment agencies, labor organizations, and joint labor-management committees.¹²³ While the ADA's purpose appears clear, many individuals with intellectual disabilities, like Jane, remain largely unprotected from the Act's scope of coverage.¹²⁴

1. Basic Provisions

Title I of the ADA prohibits private employers from discriminating against employees or employment applicants on the basis of a covered individual's disability.¹²⁵ Only "qualified individual[s] with a disability," individuals with a disability who, "with or without reasonable accommodation, can perform the essential functions of the position held or desired," are considered to be "covered" under the Act.¹²⁶

"Disability," under the ADA, means: (1) "[having] a physical or mental impairment that substantially limits one or more of the major life activities¹²⁷ of such individual"; (2) "[having] a record of such

119. See *George H. W. Bush Signs Americans with Disabilities Act into Law on this Day in 1990*, VOA NEWS (July 26, 2017, 7:07 AM), <https://bit.ly/3rksJ6B>.

120. See 42 U.S.C. § 12101(b).

121. See 29 U.S.C. § 701.

122. Federal agencies refer to programs receiving federal financial assistance and federal contractors. See *id.* § 504.

123. See 42 U.S.C. §§ 12101–12213.

124. See *supra* Part I.

125. See 42 U.S.C. § 12101(a)(8).

126. See 42 U.S.C. § 12111(8).

127. Major life activities include, but are not limited to "caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working." See 42 U.S.C. § 12102 (2)(A).

impairment”; or (3) “being regarded as having such an impairment.”¹²⁸ Notably, “mental impairment” includes any mental or psychological disorder, such as “organic brain syndrome, emotional or mental illness, and specific learning disabilities.”¹²⁹ While there is no exhaustive list of covered disabilities under the ADA, relevant regulations make clear that “intellectual disabilities” would easily be considered a disability within the meaning of the Act.¹³⁰

As mentioned, only individuals with a disability who, with or without reasonable accommodation, can perform the essential functions of the position held or desired, are considered “covered” under the Act.¹³¹ The phrase “essential functions” is defined to include job tasks that are “fundamental” and not “marginal.”¹³² In determining what constitutes the essential functions of a given job, the employer’s own judgment regarding what functions are essential is often considered.¹³³ As such, a written job description is considered evidence of the essential functions of the job, although not conclusive.¹³⁴

Crucially, employers, in many cases, are required to make “reasonable accommodations” for employees with disabilities.¹³⁵ Reasonable accommodations include, but are not limited to, modifications that permit an individual with a disability to perform his or her work, like modified job schedules, modified equipment or devices, and appropriate adjustment or modification of examinations, training materials, and policies.¹³⁶ A reasonable accommodation should be tailored to the particular needs of the individual and the requirements of the job.¹³⁷

2. The “Balancing Test:” A Threat to Individuals with Intellectual Disabilities

While the ADA implies a broad nondiscrimination mandate, an employer’s statutory duty not to discriminate is not plenary.¹³⁸ The nondiscrimination mandate is, in effect, limited by “a series of cost-based balancing tests,” which raise serious concerns surrounding the *actual* protection of individuals with intellectual disabilities in employment.¹³⁹

128. See 42 U.S.C. § 12102.

129. See 45 C.F.R. § 84.3(j)(2)(i) (2005).

130. See *id.*

131. See 42 U.S.C. § 12111(8) (emphasis added).

132. See 29 C.F.R. § 1630.2(n) (2016).

133. See *id.*

134. See *id.*

135. See 29 C.F.R. § 1630.2(o) (2016).

136. See *id.*

137. See *id.*

138. See 29 C.F.R. § 1630.2(p) (2016).

139. See *id.*; see also Dispenza *supra* note 8, at 162.

Title I of the ADA does not require an employer to make any accommodations that would impose an “undue hardship” on the operation of an employer’s business.¹⁴⁰ Under the ADA, “undue hardship” means an “action requiring significant difficulty or expense,” when considered in light of four groups of factors.

First, courts consider “the nature and cost of the accommodation” necessary.¹⁴¹ Second, courts consider “the overall financial resources of the facility or facilities involved in the provision of the reasonable accommodation, the number of persons employed at such facility, the effect on expenses and resources, or the impact otherwise of such accommodation upon the operation of the facility.”¹⁴² Third, courts consider “the overall financial resources of the covered entity, the overall size of the business of the covered entity with respect to the number of its employees, [and] the number, type, and location of the [covered entities and facilities.]”¹⁴³ Lastly, courts consider “the type of operation or operations of the covered entity, including the composition, structure, and functions of the work force; the geographic separateness, administrative, or fiscal relationship of the facility or facilities in question to the covered entity.”¹⁴⁴

The ultimate determination of undue hardship in any given circumstance is determined on a case-by-case basis.¹⁴⁵ While the burden rests with the employer to demonstrate that a given accommodation would cause an undue hardship,¹⁴⁶ this effective “undue hardship defense” raises concerns regarding an employer’s obligation to provide accommodations for individuals with intellectual disabilities, in particular.¹⁴⁷ Concerns are duly exacerbated in light of pervasive, wide-spread workplace automation, given the expensive nature of providing assistive technology and technology-based training to individuals with disabilities beyond the baseline training programs already employed.¹⁴⁸

140. See 29 C.F.R. § 1630.2(p) (2016).

141. See 42 U.S.C. § 12111(10)(B)(i).

142. See 42 U.S.C. § 12111(10)(B)(ii).

143. See 42 U.S.C. § 12111(10)(B)(iii).

144. See 42 U.S.C. § 12111(10)(B)(iv).

145. See 42 U.S.C. § 12111 (10)(B).

146. See 42 U.S.C. § 12112(b)(5)(A).

147. See *infra* Part III.

148. When Lee Huffman, an individual diagnosed with a genetic eye disorder in his early childhood, “wants to use his personal computer, he launches a special application that magnifies the screen . . .” See, e.g., Sintia Radu, *Who’s Paying for Assistive Technology?*, U.S. NEWS & WORLD REP. (Dec. 1, 2017, 4:05 PM), <https://bit.ly/3r0pQFc>. For example, “the special software that [Lee] uses costs around \$700.” See *id.*; see also Melissa Mitchell, *High Cost of Assistive Technologies Keeping Some People from Work, Study Says*, ILL. NEWS BUREAU (Mar. 15, 2004, 9:00 AM), <https://bit.ly/2M9EPH6> (“[T]he high cost of some assistive technologies may still prevent persons with disabilities from joining the labor force, especially those most inclined toward self-employment.”).

Despite the intent to combat pervasive discrimination against Americans with disabilities in employment, the ADA's nondiscrimination mandate fails to effectively protect individuals with intellectual disabilities in today's automated society.¹⁴⁹ Gravely, the ADA stands to continue to lose its effectiveness, first evidenced as early as 1999.¹⁵⁰

D. *Special Education Law*

Educators' efforts in ensuring that an increasing number of students with intellectual disabilities, upon graduation from secondary school,¹⁵¹ qualify for available job opportunities—with or without reasonable accommodation—are integral to positive employment outcomes for such individuals.¹⁵² Broadly, the IDEA ensures special education and related services to students with intellectual disabilities.¹⁵³ This Section provides an overview of the IDEA¹⁵⁴ and the developing law surrounding students' IEPs.¹⁵⁵

1. Individuals with Disabilities Education Act

Before the 1960s, exclusion of individuals with disabilities from mainstream education was unquestioned and even upheld.¹⁵⁶ For example, in one of the earliest reported cases in support of the discriminatory philosophy, the Massachusetts Supreme Court in *Watson v. City of Cambridge* upheld the exclusion of a student from school solely due to poor academic ability, reasoning that the student was too “weak minded” to profit from instruction.¹⁵⁷ About 30 years later, the Wisconsin Supreme Court in *Beattie v. Board of Education of Antigo* held, with respect to a student with cerebral palsy, “[t]he right of a child of school age to attend the public schools . . . cannot be insisted upon when its presence . . . is harmful to the best interests of the school.”¹⁵⁸ Before “the foundational

149. *See supra* Part II.

150. *See supra* Part I.

151. *See Secondary School*, MERRIAM-WEBSTER, <https://bit.ly/2NKMqrC> (last visited Nov. 7, 2020) (defining secondary school as “a school intermediate between elementary school and college and usually offering general, technical, vocational, or college-preparatory courses”).

152. *See discussion infra* Part III.

153. *See infra* Section II.D.1.

154. *See infra* Section II.D.1.

155. *See infra* Section II.D.2.

156. *See generally* *Levine v. State Dep't of Insts. & Agencies*, 84 N.J. 234, 243 (1980) (stating that the constitutional right to an education does not extend to children classified as “subtrainable”); *see also* Bonnie Spiro Schinagle, *Considering the Individualized Education Program: A Call for Applying Contract Theory to an Essential Legal Document*, 17 CUNY L. REV. 195, 199 (2013).

157. *See Watson v. City of Cambridge*, 157 Mass. 561, 562 (1893).

158. *State ex rel. Beattie v. Bd. of Educ. City of Antigo*, 169 Wis. 231, 154 (1919).

disability rights cases later decided,” states’ exclusion of children with disabilities from public education was the norm.¹⁵⁹

Representing a hopeful shift in the discriminatory philosophy, the United States Supreme Court in the landmark case, *Brown v. Board of Education*,¹⁶⁰ held, as relating to education rights, “education is perhaps the most important function of state and local governments It is the very foundation of good citizenship” and “[s]uch an opportunity where the state has undertaken to provide it, is a right that must be made available to all on equal terms.”¹⁶¹ Crucially, *Brown* conveyed the notion that “separate education facilities are inherently unequal,” providing parents of children with disabilities, educators, and disability rights activists “the constitutional foundation . . . to press for equal educational opportunities for all children, including those with [intellectual disabilities].”¹⁶²

Following the decision in *Brown*, one of the first pieces of federal legislation, the 1965 Elementary and Secondary Education Act (ESEA),¹⁶³ was established to provide federal aid to assist Local Education Agencies in meeting the needs of “educationally deprived” children.¹⁶⁴ Soon after, in 1975, Congress enacted the Education for All Handicapped Children Act (EHA) to aid states’ broad protection of the rights of children with disabilities and their families.¹⁶⁵ The EHA was amended for nearly two decades until it was ultimately renamed the Individuals with Disabilities Education Act in 1990.¹⁶⁶

Now commonly referred to as the IDEA, the Act signed into law by President Ford, makes available a “free appropriate public education”¹⁶⁷

159. *See id.*; *Watson*, 157 Mass. at 562; *see also* Jeffrey Forte, *History of Special Education: Important Landmark Cases*, FORTE L. GRP. (Oct. 4, 2017), <https://bit.ly/36rHrkp>.

160. *See Brown v. Bd. of Educ. of Topeka*, 347 U.S. 483, 495 (1954) (holding [generally] that separate but equal educational facilities for racial minorities is inherently unequal and in violation of the Fourteenth Amendment’s Equal Protection Clause).

161. *See id.* at 493 (emphasis added).

162. *See The Right to Education*, DISABILITY JUST., <https://bit.ly/2NITccP> (last visited Feb. 1, 2021).

163. The ESEA, commissioned for one year, authorized federal funding to states to establish sponsoring institutions and centers for “children with handicaps.” *See* 20 U.S.C. § 6301 (“The purpose . . . is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments.”).

164. *See id.*

165. *See* 20 U.S.C. § 1400.

166. *See* 20 U.S.C. § 1414.

167. Section 1401 of the IDEA defines FAPE generally as “special education and related services that: (A) have been provided at public expense, under public supervision and direction, and without charge; (B) meet the standards of the State educational agency; (C) include an appropriate preschool, elementary, or secondary school education in the State involved; and (D) are provided in conformity with [an] individualized education program.” *See* 20 U.S.C. § 1401(9).

(“FAPE”) in the “least restrictive environment”¹⁶⁸ (“LRE”) to eligible children with disabilities¹⁶⁹ throughout the nation.¹⁷⁰ Specifically, the statute provides:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.¹⁷¹

By passing the IDEA, “Congress intended ‘to open the door of public education’ to all qualified children and ‘require[d] participating States to educate [children with disabilities] with [children without disabilities] whenever possible.’”¹⁷² The IDEA seeks to level the educational playing field for students with disabilities relative to their peers without disabilities,¹⁷³ ultimately seeking to provide students with disabilities better, long-term outcomes regarding productivity in adulthood.¹⁷⁴

Although a school district is required under the IDEA to provide a FAPE to all children with disabilities, “it is not required to provide the best possible education to maximize educational benefits.”¹⁷⁵ Further, while the IDEA attempts to ensure that all children with disabilities have available to them a FAPE that emphasizes special education and related services

168. The IDEA does not define “least restrictive environment” in its definitions section yet “requires that each student receive special education and related services in the ‘least restrictive environment.’” *See Key Definitions in IDEA: Defining and Understanding LRE*, CTR. FOR PARENT INFO. & RES. (June 2017), <https://bit.ly/2YkMHPj>; *see also* 34 C.F.R. § 300.114(a)(2) (2021).

169. The IDEA lists 13 different disability categories under which 3 to 21 year-olds may be eligible for services. *See* 34 C.F.R. § 300.8 (2017). The disability categories listed are: (1) autism; (2) deaf-blindness; (3) deafness; (4) emotional disturbance; (5) hearing impairment; (6) intellectual disability; (7) multiple disabilities; (8) orthopedic impairment; (9) other health impairment; (10) specific learning disability; (11) speech of language impairment; (12) traumatic brain injury; and (13) visual impairment (including blindness). *See id.*

170. *See* 20 U.S.C. § 1400.

171. *See* 20 U.S.C. § 1412(a)(5).

172. *See Cedar Rapids Cmty. Sch. Dist. v. Garret F. ex rel. Charlene F.*, 526 U.S. 66, 78 (1999) (citing *Bd. of Educ. of Hendrick Hudson Cent. Sch. Dist. v. Rowley*, 458 U.S. 176, 192 (1982)); *see also id.*

173. *See* 20 U.S.C. § 1400(d).

174. *See* 20 U.S.C. § 1400(a)(5)(A)(ii); *see also* S. REP. NO. 94-168, at 9 (1975) (“With proper education, many [children with disabilities] would be able to become productive citizens, contributing to society instead of being forced to remain burdens.”).

175. *See W.H. v. Schuylkill Valley Sch. Dist.*, 954 F. Supp. 2d 315, 324 (E.D. Pa. 2013).

designed to meet their unique, individual needs,¹⁷⁶ the IDEA—to the detriment of many students with disabilities—cannot and does not purport to promise any substantive educational outcomes.¹⁷⁷

Concerningly, the U.S. Department of Education announced in late June 2020 that less than half of states were in compliance with the IDEA for the 2018–2019 academic year.¹⁷⁸ New guidance by the United States Department of Education affirms the importance of the IDEA amidst the COVID-19 pandemic.¹⁷⁹ Specifically, the United States Department of Education’s Office of Special Education and Rehabilitative Services has explicitly reiterated its “commitment to ensuring children with disabilities and their families have successful early intervention and educational experiences in the 2021–2022 school year.”¹⁸⁰

2. Individualized Education Plans

In 1982, the United States Supreme Court interpreted the IDEA for the first time in *Board of Education v. Rowley*.¹⁸¹ In the first special education case heard by the Supreme Court, the Court addressed several unsettled legal issues—most importantly, the meaning of providing students with a FAPE under the IDEA.¹⁸² The Court ruled that in order to provide a FAPE to children with disabilities, school districts must provide an educational program that is “reasonably calculated to enable the child to receive educational benefits.”¹⁸³ The prominent “reasonably calculated” standard has come under “intense legal scrutiny since 1982.”¹⁸⁴ And concerningly, most lower court decisions have defined the phrase to mean “that the IDEA does not ensure specific education results, but instead . . .

176. *See id.* at 323.

177. *See id.* at 322.

178. *See* John M. McLaughlin, *Most States Fail Education Obligations to Special Needs Students: So, What Else is New?*, USA TODAY (Aug. 10, 2020, 5:00 AM), <https://bit.ly/2YnFTQR> (“[T]here are no real consequences to the district for ignoring [compliance with the law]. If after years of disregarding the law, a school district or state is found to have violated it, the most common consequence is that the state must start to adhere to the law . . . no one loses a professional license, no one pays a fine, no one goes to jail.”).

179. *See New Guidance Reaffirms Importance of Full Implementation of Individuals with Disabilities Education Act Amidst Covid-19 Pandemic*, U.S. DEP’T OF EDUC. (Aug. 24, 2021), <https://bit.ly/3CW2M0D>.

180. *See id.*

181. *See Bd. of Educ. of Hendrick Hudson Cent. Sch. Dist. v. Rowley*, 458 U.S. 176, 179 (1982).

182. *See id.* at 177.

183. *See id.* at 207.

184. *See Landmark Special Education Law Case: The Rowley Supreme Court Decision*, SIERRA EDUC., <https://bit.ly/2NKV0C7> (last visited Feb. 10, 2021).

mandates that “educational services proposed by a school district must only be *reasonably likely* to provide sufficient benefits to the student.”¹⁸⁵

Thirty-five years later, in 2017, the Supreme Court articulated a “new” FAPE standard in *Endrew v. Douglas County School District*.¹⁸⁶ In *Endrew*, the Court was asked to decide whether a public school’s education program, which only afforded a student with Autism Spectrum Disorder “minimal progress,” constituted a FAPE.¹⁸⁷ Experts initially anticipated that the *Endrew* decision would represent a “seismic shift and that *Rowley* would no longer serve as the yardstick for public school compliance under the IDEA.”¹⁸⁸ However, the Court in *Endrew* made clear that it was not overruling *Rowley*.¹⁸⁹ In revisiting *Rowley*, the Court reiterated that in order to provide a FAPE to children with disabilities, school districts must provide an educational program that is “reasonably calculated to enable a child to make progress appropriate in light of the child’s circumstances.”¹⁹⁰ While “fully embracing its prior holding in *Rowley*,” the Court clarified that “the progress expected for a given child will vary greatly as a result of each child’s unique circumstances.”¹⁹¹

As is the case with many Supreme Court decisions, “the meaning and impact of the *Endrew* decision is likely to be debated by [special education] attorneys for years to come,”¹⁹² especially in light of the many challenges facing the delivery and quality of special education due to the COVID-19 pandemic.¹⁹³ However, for those interested in the long-term success of students with intellectual disabilities, the decision is “far from . . . game-chang[ing].”¹⁹⁴

Currently, a FAPE requires a school to offer an IEP reasonably calculated to enable a child to make progress appropriate in light of the child’s circumstances.¹⁹⁵ A FAPE, provided through a child’s IEP, consists

185. See *id.* (emphasis added); see also *Coleman v. Pottstown Sch. Dist.*, 983 F. Supp. 2d 543, 564 (E.D. Pa. 2013).

186. See *Endrew F. ex rel. Joseph F. v. Douglas Cty. Sch. Dist.*, 137 S. Ct. 988, 991 (2017) (holding that “to meet its substantive obligation under the IDEA, a school must offer an individual education plan (IEP) reasonably calculated to enable a child to make progress appropriate in light of the child’s circumstances”).

187. See *id.*

188. See Tim R. Pumatier & Adam C. Wattenbarger, *Supreme Court Revisits Long-Standing Rowley Standard*, MINN. ASS’N OF SCH. ADM’RS LEADERS F. (June 27, 2017), <https://bit.ly/36j7fw9>.

189. See *Endrew F.*, 137 S. Ct. at 999; see also Pumatier & Wattenbarger, *supra* note 188.

190. See *Endrew F.*, 137 S. Ct. at 991 (emphasis added).

191. See Pumatier & Wattenbarger, *supra* note 188; see also *Endrew F.*, 137 S. Ct. at 991.

192. Pumatier & Wattenbarger, *supra* note 188.

193. See *id.*

194. See *id.*

195. See *Endrew F.*, 137 S. Ct. at 992.

of a written plan for the child that is developed and revised.¹⁹⁶ A FAPE includes a statement of the child's present level of academic achievement and functional performance, a statement of measurable academic and functional goals, and services or accommodations that will be provided to assist the child in meeting those goals.¹⁹⁷

The IEP has two broad purposes: (1) "to establish measurable annual goals for the child"; and (2) "to state the special education and related services and supplementary aids and services that the agency will provide to, or on behalf of, the child."¹⁹⁸ IEP teams¹⁹⁹ generally consider a particular child's involvement in three main areas of school life: (1) the general education curriculum; (2) extracurricular activities; and (3) social activities.²⁰⁰

Crucially, for students approaching the end of their secondary school education,²⁰¹ the IDEA requires that the IEP must include statements about "transition services,"²⁰² designed to help students with disabilities prepare

196. *See id.*

197. Specifically, the IDEA currently requires that IEPs contain:

- (1) "a statement of the child's present levels of academic achievement and functional performance . . .";
- (2) "a statement of measurable annual goals, including academic and functional goals . . .";
- (3) "a description of how the child's progress toward meeting the annual goals . . . will be measured and when periodic reports on the progress the child is making toward meeting the annual goals . . .";
- (4) "a statement of the special education and related services and supplementary aids and services . . .";
- (5) "an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in . . . activities . . .";
- (6) "a statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child . . .";
- (7) "the projected date for the beginning of the services and modifications . . . and the anticipated frequency, location, and duration of those services and modifications"; and
- (8) "beginning not later than the first IEP to be in effect when the child is 16, and updated annually thereafter—[records related to transition services]."

See 20 U.S.C. § 1414(d)(1)(A)(i).

198. *See Contents of the IEP*, CTR. FOR PARENT INFO. & RES. (Nov. 9, 2017), <https://bit.ly/3oj0Sis>.

199. *See supra* note 37 and accompanying text.

200. *See Contents of the IEP*, *supra* note 198.

201. *See Secondary School*, *supra* note 151.

202. *See* 34 C.F.R. § 300.43 (2017) ("Transition services means a coordinated set of activities for a child with a disability that: (1) [i]s designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment . . . continuing and adult education, adult services, independent living or community participation; (2) [i]s based on the individual child's needs, taking into account the child's

for life after high school.²⁰³ More specifically, the IDEA requires that, “beginning not later than the first IEP . . . in effect when the child turns 16, or younger if determined appropriate by the IEP Team . . . the IEP must include: (1) measurable postsecondary goals based upon age-appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills; and (2) the transition services . . . needed to assist the child in reaching those goals.”²⁰⁴

Ultimately, an IEP need not maximize the disabled child’s educational potential.²⁰⁵ Rather, the IEP merely guarantees only a basic floor of opportunity designed to provide some educational benefit, not a potential-maximizing education.²⁰⁶ Moreover, challenging the effective implementation of an IEP proves difficult as the aggrieved party must show more than a failure to implement all elements of that IEP.²⁰⁷ As such, school boards and other authorities are commonly found to have successfully implemented an IEP, so long as significant provisions of the IEP are implemented—notwithstanding an authority’s blatant failure to implement other elements.²⁰⁸

III. ANALYSIS

Despite the positive trend in the passing of protective law aimed at fostering equality for individuals with disabilities in both employment²⁰⁹ and education,²¹⁰ individuals with intellectual disabilities, like Jane, are expected to continue to slip through the cracks of protection.²¹¹ As the modern workplace becomes increasingly automated, application of the ADA’s “undue hardship” balancing test²¹² creates a dangerous “Catch-22” for individuals with intellectual disabilities: if the individual concedes that they are unable to perform the essential functions of their current or desired job, they will not be considered a “covered” individual under the scope of the ADA, and will thus lose protection of the statute’s

strengths, preferences, and interests; and includes: (i) [i]nstruction; (ii) [r]elated services; (iii) [c]ommunity experiences; (iv) [t]he development of employment and other post-school adult living objectives; and (v) [i]f appropriate, acquisition of daily living skills and provision of a functional vocational evaluation.”).

203. *See id.*

204. *See* 34 C.F.R. § 300.320(b) (2017).

205. *See* Bd. of Educ. of Hendrick Hudson Cent. Sch. Dist. v. Rowley, 458 U.S. 176, n.21 (1982) (“Whatever Congress meant by an ‘appropriate’ education, it is clear that it did not mean a potential-maximizing education.”).

206. *See* 20 U.S.C. §§ 1400(d)(1)(A), 1412(5); *see also* Est. of Lance v. Lewisville Indep. Sch. Dist., 743 F.3d 982, 989 (5th Cir. 2014).

207. *See* Hous. Indep. Sch. Dist. v. Bobby R., 200 F.3d 341, 349 (5th Cir. 2000).

208. *See id.*

209. *See supra* Section II.C.

210. *See supra* Section II.D.1.

211. *See supra* Part I.

212. *See supra* Section II.C.2.

nondiscrimination mandate.²¹³ However, even if the individual is able to perform the essential functions of their current or desired job with or without reasonable accommodation, ultimately bringing them within the ADA's scope of coverage,²¹⁴ employers—as initially predicted in as early as 2002²¹⁵—are becoming increasingly more likely to succeed on an “undue hardship defense” in light of the steep expense associated with providing technology accommodations, in particular.²¹⁶ The quickening pace of automation in today's society wholly threatens the effectiveness of the ADA's nondiscrimination mandate when asserted to protect individuals with intellectual disabilities in employment.²¹⁷

In light of the ADA's shortcomings in protecting individuals with intellectual disabilities from discrimination on the basis of disability in employment, timely reform at the special education level is necessary to better prepare such individuals for the increasing technological qualifications required by the majority of available jobs in today's society.²¹⁸ In order to eliminate the Catch-22 that threatens many with intellectual disabilities in employment, the goals of public school systems around the nation must shift away from placing substantial emphasis on academic, standardized benchmark results.²¹⁹ Rather, the IDEA should incorporate requirements aimed at promoting the prioritization of successful post-secondary education outcomes.²²⁰

First, this Comment argues that the IDEA should require IEP creators to begin planning for students' transitions to life after high school by the time students turn 13.²²¹ Second, this Comment argues that the IDEA

213. *See supra* Part I.

214. *See supra* Section II.C.1.

215. *See supra* Section II.B.1.

216. *See Radu, supra* note 148.

217. *See supra* Section II.C.2.

218. According to a study released by the Brookings Institution, “The use of digital tools has increased . . . in 517 of 545 occupations since 2002, with a striking uptick in many lower-skilled occupations.” *See Technology Is Dramatically Invading Nearly All US Jobs, Even Lower-Skilled Occupations*, CNBC (Nov. 15, 2017, 6:45 AM), <https://cnb.cx/2NHqJnE>. The report “underscores the growing need for workers of all types to gain digital skills and explains why many employers say they struggle to fill jobs . . .” *See id.*

219. *See infra* Section III.A.

220. *See infra* Section III.B.

221. *See Cognitive Development in the Teen Years*, STAN. CHILD.'S HEALTH, <https://bit.ly/3ptYmar> (last visited Oct. 12, 2021) (“Ages 12 to 18 is called adolescence. Kids and teens in this age group, [generally], do more complex thinking. This type of thinking is also known as formal logical operations. This includes the ability to: do abstract thinking [think about future possibilities].”).

should further require the incorporation of explicit, substantive technological competency benchmarks into students' IEP goals.²²²

A. Transition Services Realized Prior to the Age of 13

Currently, under the IDEA, a student's IEP must include transition services²²³ by the time the student turns 16.²²⁴ However, planning often starts much earlier.²²⁵ In some scenarios, IEP teams begin working with students as early as middle school to help the student explore their interests and possible careers.²²⁶

The IDEA should require *all* IEP teams to begin planning for a student's transition from secondary education by the time the student turns 13.²²⁷ The essence of the transition process is the transition plan.²²⁸ In order to best develop an effective transition plan for each individual student, IEP teams must work with all eligible students to identify the strengths and interests of each student from a younger age. While some states have already adopted a younger transition age,²²⁹ uniformity in this requirement will prove most equitable. Arguably, uniformly identifying potential strengths and initial interests of all eligible students prior to the age of 16 stands to invariably improve the quality of specialized education students receive prior to graduation, and in turn, overall productivity in adult life.²³⁰

222. See 20 U.S.C. § 1400(c)(5)(H) (“Almost 30 years of research and experience has demonstrated that the education of children with disabilities can be made more effective by . . . supporting the development and use of technology, including assistive technology devices and assistive technology services, to maximize accessibility for children with disabilities.”).

223. See *Contents of the IEP*, *supra* note 198.

224. See *supra* Section II.D.2.

225. See *supra* Section II.D.2.; see also Andrew M.I. Lee, *What is IEP Transition Planning*, UNDERSTOOD, <https://u.org/3pu4uiQ> (last visited Nov. 8, 2021).

226. See Lee, *supra* note 225.

227. See 20 U.S.C. § 1400(c)(5) (“Almost 30 years of research and experience has demonstrated that the education of children with disabilities can be made more effective by—having high expectations for such children and ensuring their access to the general education curriculum in the regular classroom, the maximum extent possible, in order to . . . be prepared to lead productive and independent adult live, to the maximum extent possible.”).

228. See Lee, *supra* note 225.

229. For example, Texas requires a transition plan by the earlier age of 14. See *Why is Transition Planning Important in Special Education?*, LAMAR UNIV. (Aug. 16, 2021), <https://bit.ly/3opVolV>.

230. See *supra* Section II.D.1.

For example, identifying whether a particular student may be interested in vocational training,²³¹ post-secondary education,²³² a particular career path,²³³ or independent living²³⁴—choices that all require varying degrees of technological competency—by the earlier age of 13 allows for extended, specialized technological competency plans to be implemented and expectantly realized prior to students' graduations. While academic preparation designed to aid qualifying students' transitions from high school to post-secondary education is a predominant goal of the IDEA, only approximately 13% of students with intellectual disabilities make it to post-secondary education.²³⁵ As such, requiring that IEP creators begin planning for students' transitions from secondary education at the earlier age of 13 is likely to improve employment outcomes for such individuals, in particular.²³⁶

Irrespective of whether a student plans to attend college or enter the workforce, adults with intellectual disabilities, in general, are significantly less likely to have access to and utilize the internet than their non-disabled counterparts.²³⁷ Requiring all IEP teams to begin planning for students' transitions by the earlier age of 13 will lay the groundwork for subsequent, rigorous technological competency training opportunities in the students' remaining years in school.²³⁸

231. See *Vocational Training in the United States: The Early 1990s*, NAT'L CTR. FOR EDUC. STAT., <https://bit.ly/3sXsTjb> (last visited Nov. 8, 2021) ("The objectives of vocational education are more varied at the secondary than at the postsecondary level."); *id.* ("Secondary vocational courses can be classified into three types: (1) consumer and homemaking education; (2) general labor market preparation; and (3) specific labor market preparation."); *id.* ("Specific labor market preparation courses teach students the skills needed to enter a particular occupational field, such as: agriculture; business and office; marketing and distribution; health; technical and communications; and more.").

232. See *Post-secondary Education*, TOP HAT, <https://bit.ly/3oj9zcA> (last visited Feb. 10, 2021) ("Postsecondary Education, also known as tertiary education, is the education level that follows the successful completion of secondary education, often referred to as high school."). Universities and colleges are examples of post-secondary education. See *id.*

233. See *Individuals with Disabilities: Career Ideas Based on Your Abilities*, BECOME WITH LANTERN (Nov. 17, 2020), <https://bit.ly/3qZ2m2Y>. ("Organizations hire employees because of the abilities they bring to their job, and there are a lot of potential careers available to driven, curious people with disabilities who have a range of strengths and interests.").

234. Independent living for individuals with disabilities is essentially "living just like everyone else—having opportunities to make decisions that affect one's life, able to pursue activities of one's own choosing—limited only in the same ways that one's nondisabled neighbors are limited." See *What is Independent Living?*, REACH, <https://bit.ly/3oolB3j> (last visited Feb. 10, 2021).

235. This is as compared to 53% of the general population. See Kristin Stanberry, *Transition Plan for Students with IEPs*, GREAT!SCHOOLS.ORG (Apr. 5, 2010), <https://bit.ly/3MhbRGa>.

236. See *supra* Section II.B.2.

237. See *supra* Section II.B.2.

238. See *infra* Section III.B.

*B. Introduction of Substantive Technological Competency
Components Aimed at Fostering Enhanced Technological
Competency*

Next, the IDEA should mandate that students' IEPs contain a substantive technological competency component aimed at fostering the requisite level of technological competency required by a student's desired post-secondary transition plan. Currently, the IDEA requires that IEPs contain many crucial components, including: a statement of the child's present levels of academic achievement and functional performance; a statement of measurable annual goals; and a description of how the child's progress toward meeting the annual goals will be measured and when periodic progress will be provided.²³⁹ Nearly all already-mandated components of the IEP are aimed at contributing to the student's *academic* and *social* success.²⁴⁰

In a timely manner, the IDEA should be amended to require creators of IEPs, after beginning to plan for a student's post-secondary transition by the earlier age of 13,²⁴¹ to: (1) determine the requisite technological competency skills associated with students' desired post-secondary transition plans;²⁴² (2) evaluate students' current technological competency skills; and (3) compose individualized, comprehensive plans to ensure students with disabilities qualify for a wider range of employment opportunities as well as improve students' receptiveness to standard employment training practices.

First, IEP teams should determine the requisite technological competency skills associated with students' desired post-secondary transition plans. Based on an individual student's strengths and interests, practical post-secondary transition goals should be realized by the time the student turns 13.²⁴³ Within six months, IEP teams should identify any and all technological requisites associated with the desired post-secondary plan and possible barriers that may preclude the student from otherwise succeeding.²⁴⁴ The goal should be to ensure that students with intellectual disabilities are qualified for a wider range of employment opportunities, with or without reasonable accommodation, keeping such individuals within the ADA's scope of coverage, and in turn, diminishing the Catch-

239. *See supra* Section II.D.2 (emphasis added).

240. *See supra* Section II.D.2 (emphasis added).

241. *See supra* Section III.A.

242. *See supra* note 201 and accompanying text.

243. *See supra* Section III.A.

244. By 2024, experts predict that employers will expect that employees have already mastered a multitude of basic technology skills including: Microsoft Office competency, Social Media competency, and Photo and Video competency. *See The Basic Technology Skills Employers Will Assume You've Mastered*, MASIS STAFFING SOLS., <https://bit.ly/2NMzqNo> (last visited Feb. 10, 2021).

22 that threatens many in light of rapid workplace automation.²⁴⁵ Whether a given student plans to attend post-secondary school at a college or university or to hold a position at a local grocery store, varying levels of technological competency are required in each setting and should be fully evaluated at students' IEP meetings.

Next, IEP teams should evaluate students' base-level level technological competency prior to composing an individualized, comprehensive plan aimed at realizing personal technology goals. Educators should assign the student varying base-level tasks associated with their desired post-secondary plan to identify how intensive the student's curriculum, as it relates to technological competency, needs to be. As data regarding employment outcomes for individuals with intellectual disabilities becomes more available, common challenges associated with the automated workplace, in particular, are more likely to be widely understood.²⁴⁶ Determining whether a given student has access to the particular devices, programs, and platforms they are most likely to see in their desired post-secondary path will be crucial to developing the student's requisite qualifications and to fostering their later responsiveness to job-related trainings.²⁴⁷

Lastly, after identifying the requisite technological competency skills associated with a student's potential post-secondary transition plan and evaluating the student's base-level technological competency, IEP teams should construct a comprehensive, individualized plan aimed predominantly at ensuring that the student is qualified for the desired post-secondary outcome with or without reasonable accommodations. The goal should remain to keep students with intellectual disabilities, upon graduation from secondary school, within the scope of the ADA's coverage. Approaches are likely to vary greatly based on the individual student's desired transition plan, base-level technological competency, and the time and resources available to respective IEP teams. Specific, substantive technological benchmarks should be expressly reflected in a student's IEP.

IV. CONCLUSION

Rapid workplace automation in today's society is, in many cases, failing individuals with intellectual disabilities.²⁴⁸ The overwhelming benefits of vast technological advancement continue to overshadow the detrimental effects imposed on an entire societal group—individuals with

245. *See supra* Part I.

246. *See supra* Section II.A.2.

247. *See supra* Section II.C.2.

248. *See supra* Part III.

intellectual disabilities.²⁴⁹ Unfortunately, Jane is merely one of millions of individuals with intellectual disabilities disproportionately impacted by the effects of rapid automation in employment.²⁵⁰ Even worse, the disproportionate effects of rapid automation are intensifying in light of the COVID-19 pandemic's immense and irreversible impact on the American employment economy.²⁵¹

The time is now to acknowledge that the ADA has prejudicially failed to keep pace.²⁵² Reform at the special education level is a unique, long-term solution to combatting discrimination in employment on the basis of disability.²⁵³ Building on the strengths and interests of students with intellectual disabilities from an earlier age²⁵⁴ and providing such students with substantive technological competency training throughout their time in secondary school²⁵⁵ will diminish the prejudicial effect of automation on individuals with intellectual disabilities in employment.²⁵⁶ Ultimately, individuals with intellectual disabilities, like Jane, deserve equal access to employment opportunities in today's automated society, and in turn, equal access to a meaningful quality of life.²⁵⁷

249. *See supra* Part II.

250. *See supra* Part I.

251. *See supra* Part II.

252. *See supra* Section II.C.

253. *See supra* Section II.D.

254. *See supra* Section III.A.

255. *See supra* Section III.B.

256. *See supra* Part III.

257. *See supra* Section II.A.3.