

# DOCUMENT FOR INTERNAL USE Updated September 2017

# Visual impairment statistics including population, causes, education and employment

**Note:** While you are encouraged to use these statistics in your communications, this document is an internal publication and is not to be distributed externally.

As you work to forward Perkins' mission and local-to-global goals in your respective areas, please incorporate these statistics (including sources) and message points into your presentations, conversations and other communications.

# I. Blind/Visually Impaired Population

#### A. Worldwide

#### 1. Blindness

Of the **estimated 36 million total worldwide population** of blind individuals, slightly more than **7 million worldwide under the age of 50 are blind**.

Source: <u>The Lancet: Magnitude, temporal trends, and projections of the global</u> <u>prevalence of blindness...September 2017</u> – based on a metadata analysis of all relevant datasets worldwide published from 1980 – 2015.

An estimated 82% of those who are blind worldwide are age 50 and above. Source: World Health Organization (WHO) data gathered in 2002 and updated in World Health Organization: Fact Sheet Updated August 2014. Visual Impairment and Blindness

#### 2. Visual Impairment

An estimated 216.6 million individuals worldwide have moderate to severe visual impairments.

Of the global visually impaired population, **188.5 million individuals have mild vision condition.** Moreover, 1.9 billion people ages 35 years and older are affected by near-vision impairment due to uncorrected presbyopia.

Note: Growth in visual impairment is happening primarily in the aging population and as a consequence pf the increasing population numbers for the aging population rather than rising rates of visual impairment. Few if any statistics show rising rates of visual impairment in the population aged 0-20 years.



Source: <u>The Lancet: Magnitude, temporal trends, and projections of the global</u> <u>prevalence of blindness...September 2017</u> – based on a metadata analysis of all relevant datasets worldwide published from 1980 – 2015.

#### 3. Visual Impairment Correlated with Low Income

WHO estimates that roughly 90% of the world's population with significant or easily correctable visual impairment, more than 221 million individuals, live in low-income settings/developing countries.

Source: World Health Organization (WHO) data gathered in 2002 and updated in World Health Organization: Fact Sheet Updated August 2014. Visual Impairment and Blindness

#### 4. Visual Impairment Among Children

Among children under 15 years of age worldwide, WHO reports that an estimated 19 million have a visual impairment. Of those, an estimated 12 million children under 15 have vision conditions that could be easily diagnosed and corrected. Consequently, the estimated worldwide population of children under 15 years old with significant vision impairment is 7 million, according to WHO.

Source: World Health Organization (WHO) data gathered in 2002 and updated in World Health Organization: Fact Sheet Updated August 2014. Visual Impairment and Blindness

#### 5. Deafblindness

Perkins does not have an estimation of deafblind individuals worldwide, as children and adults who have multiple disabilities such as deafblindness are not always included in population counts or household surveys in developing countries.

Sources: Deafblind International, Disability Awareness in Action(DAA)

#### **B. United States**

#### 1. Visual Impairment

The following statistics for vision impairment in the US include those with limited vision and those who are blind.

Total with visual impairment in the US: 7,358,400

Ages 0-4:86,200Ages 5-15:378,000Ages 16-20:213,800Ages 21-64:3,633,200Ages 65+:2,970,809

Based on these statistics, an estimated three-quarters of a million children and young adults ages 0-22 years are visually impaired in the US.

Source: <u>Disability Statistics from the 2015 American Community Survey. Ithaca, NY:</u>
Cornell University Employment and Disability Institute) Note: The question asked on the



American Community Survey for the data above was "Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?"

#### 2. Deafblindness

There are **an estimated 10,600 US children (0-21) who are deafblind**. An estimated 90% of deafblind children have one or more additional disabilities, and over 40% have four or more additional disabilities. Many students with combined hearing and vision losses do not have deafblindness identified as their primary disability due to limitations in state laws and regulations.

Source (National Deafblind Child Count, National Center on Deaf-Blindness 2015).

# II. Causes of Visual Impairment

### **A. Globally Reported Causes**

According to WHO, cataracts are the leading cause of visual impairment almost everywhere except in developed countries, with 47.9% of visual impairment worldwide repoted as caused by cataracts.

Other leading causes of global visual impairment:

Glaucoma	12.3%
Age-related macular degeneration (AMD)	8.7%
Corneal opacities	5.1%
Diabetic retinopathy	4.8%
Childhood blindness	3.9%

Source: World Health Organization Causes of Blindness and Visual Impairment. Refers to data gathered in 2002 study by WHO.

# **B. US Reported Causes**

#### 1. US Adults

According to National Insitutes of Health data, age-related macular degeneration is the leading cause of visual impairment in adults in the US, followed closely by cataracts. Glaucoma and diabetic retinopathy are the next most common causes of visual impairment in the US.

Source: National Eye Institute 2004

#### 2. US Children

Cortical Visual Impairment (CVI) is the most common cause of visual impairment in children in the US.

Other leading causes of visual impairment in US children: Retinopathy of Prematurity

Optic Nerve Hypoplasia

**Albinism** 



Optic Nerve Atrophy.

Sources: Vermont Association for the Blind and Visually Impaired 2016

In the US, Cortical Visual Impairment (CVI) is the leading diagnosis of visual impairment for children ages 0-3 years old, accounting for approximately one quarter (24.9%) of the diagnoses. An estimated 85% of children with CVI have additional disabilities.

Source: Hatton, D., Ivy, S., & Boyer, C. (2013). Severe visual impairments in infants and toddlers in the United States. Journal of Visual Impairment & Blindness, 107, 325-336, Survey of about 6000 babies in 28 states and Babies Count.

# III. Education Rates for Those with Disabilities Including BVI A. Education Rates Worldwide – all disabilities

According to the World Bank, 115 million children worldwide are out of school, and of those, an estimated 40 million children who are out of school have disabilities (including blindness).

Source: (World Bank, 2003)

More than half of the 64 countries responding to a UNESCO study – 34 countries -- reported that students with severe disabilities were excluded from education.

Source: UNESCO

## B. Education Rates in Developing Countries – all disabilities

Only 10% of children with disabilities in developing countries attend primary school, and of that number only about 50% complete primary school.

Source: (UNICEF Fact Sheet)

In developing countries, a lack of resources, including inadequate teacher training, and cultural stigma of disability keep the vast majority of children and young adults who are blind and visually impaired from accessing the appropriate education they need to reach their full potential.

Without specialized training, teachers of the visually impaired often struggle to meet the specific needs of their students.

School-age children with multiple disabilities such as deafblindness are among the world's most vulnerable and the least likely to receive an education. This is particularly true in developing countries. The majority are left at home or placed in the care of orphanages and children's homes, where they may have access to nurses and therapists but little to no interaction with well-trained educators.

Source: Perkins International field experience.

Note: There are no easily attainable statistics focused on educating children in developing countries with visual impairments. According to Disability Awareness in



Action, which collects self-reported statistics and is therefore subject to less than full reporting, counts of enrollment in schools in developing countries sometimes exclude individuals with disabilities who are attending.

Source: DAA

# C. Education of the Visually Impaired in the US

#### 1. Pre-K-12

In the US, school-age population rates statistically correlate with education rates.

US Total who are visually impaired ages 0-20 years 678,000

Preschool (ages 4 or less) 86,200 Elementary School through Grade 9 (ages 5-15) 378,000

Grades 9-12+ (ages 16-20) 213,800

Source: (Disability Statistics from the 2015 American Community Survey. Ithaca, NY: Cornell University Employment and Disability Institute)

#### 2. Visually Impaired US College Attendance

An estimated 71% of students with a visual impairment enter college within eight years of completing high school. The post-secondary school completion rate for this group of students is 42.8%.

Source: Post-High School Outcomes of Young Adults With Disabilities up to 8 Years After High School. A Report From the National Longitudinal Transition Study-2 (NLTS2) . Longitudinal study conducted between 2001 and 2009.

# 3. Rates of High School Diplomas and College Degrees

In the US, 31% of visually impaired people have a high school diploma, 30% have an associate's degree or some college, but only 15% have a bachelor's degree or higher. Comparatively, 33% of Americans without disabilities have a bachelor's degree or higher.

Source: Disability Statistics from the 2015 American Community Survey. Ithaca, NY: Cornell University Employment and Disability Institute

# IV. Visual Impairment and Employment

Only 42 percent of working-age adults 21 to 64 years old with a visual impairment in the US are employed. This represents a significant gap versus the 78.3% percent of the non-disabled population who are employed.



Further, only 28% of the visually impaired population, slightly more than 1 million visually impaired people ages 21 to 64 years old, are employed full time in the US. This compares with 59% of the population without disabilities employed full-time in the US.

About 9% of the visually impaired population (more than 187,000 inidivduals) are unemployed and actively seeking work.

Source: <u>Disability Statistics from the 2015 American Community Survey. Ithaca, NY:</u>
<u>Cornell University Employment and Disability Institute</u>. Note: the definition used in the survey for "actively seeking work" is looking for employment within the past four weeks

# V. Prevalence of Disability

An estimated one in five adults in the United States has a disability.

Source: (U.S. Census Press Release, July 25, 2012 citing the US Census from 2010:

Nearly 1 in 5 People Have a Disability in the U.S., Census Bureau Reports.)

56,672,000 people in the U.S. self-reported having a disability on the 2010 Census. Of those, 38,284,000 people were classified as having a "severe disability." Source: (US Census, taken from Figure 1. Definition of Disability by Severity)

#### **VI. Who Perkins Educates**

Perkins serves hundreds of students in the United States, primarily from New England, specifically Massachusetts. We serve babies and toddlers, students in public schools through specialized educators and in outreach courses on weekends and school vacations, and day and residential students on our campus in Watertown.

Source: Perkins

#### A. Outside the US

Around the globe, Perkins teaches teachers in regions where there is both need and readiness. In our 2016 fiscal year, through the Perkins network, we have trained 26,967 individuals and reached 43,775 children with visual impairments or who are multiply disabled with visual impairments.

Source: Perkins International: Patricia Lee source. 43,775 children with VI/MDVI reached and 26,967 individuals trained for 72,742 total. These numbers are lower than the previous year because the criteria has been tightened for inclusion. Note "individuals" trained are not just teachers; the number includes parents and other blindness professionals.



#### **B. United States**

In the 2016 fiscal year, Perkins served 1,209 students in our community programs and on-campus programs in the following areas:

#### **Community Programs**

Outreach Courses: 159
Infant/Toddler Services: 492
Off-Campus School-Age Services: 355
Total Community Programs: 1,006

#### **On-Campus Programs**

Secondary Program: 82
Lower School: 58
Deafblind Program: 54
Early Learning Center: 9

Total On-Campus Programs: 203

Perkins students do not always have a Visual Impairment as their "primary" disability, which means that some children Perkins serve do not have a VI IEP. Community Programs serves some students that have a 504. Similarly, not all Perkins students are legally blind, so not all Perkins students are eligible for Federal Quota Funds.

Source: Perkins: Community Programs