

Looking at Employment Through a Lifespan Telescope: Age, Health, and Employment Status of People with Serious Visual Impairment

Corinne Kirchner
Emilie Schmeidler
Alexander Todorov

with the assistance of
Alistair Furnell



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Executive Summary

Corinne Kirchner
Emilie Schmeidler
Alexander Todorov

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Alistair Furnell

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American Foundation for the Blind
11 Penn Plaza, Suite 300
New York, NY 10001
Tel: (212) 502-7661
Fax: (212) 502-7777
TDD: (212) 502-7662
E-mail: afbinfo@afb.org

Rehabilitation Research and Training Center
on Blindness and Low Vision
P.O. Box 6189
Mississippi State, MS 39762
Tel: (662) 325-2001
Fax: (662) 325-8989
TDD: (662) 325-8693
E-mail: rrtc@ra.msstate.edu

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Executive Summary

CHAPTER 1

Policy Background and a Framework for Analysis

Policies and Presumptions

“Blindness” defined by a law. “Legal blindness” refers to a definition in the 1935 Social Security Act, embodying the public's assumption that people with very severe visual impairment cannot engage in productive work, at least not at a level that would enable them to be economically self-sufficient. In that view, to be legally blind was to be *presumed unemployed*, if not unemployable. By extension, to be *nearly* legally blind – generally called “severely visually impaired” – was to be of questionable employability.

The very next year – 1936 – the Randolph-Sheppard Act was enacted. That Act presumed blind persons to be capable not only of marginally-productive employment as in traditional sheltered workshops, but of managerial status; at the same time it recognized that societal barriers did not allow them that opportunity.

It takes only one successfully employed, self-sufficient legally blind person to falsify the absolute statement that blind people cannot, on account of their blindness, be economically self-sufficient. By contrast, it takes over 50% of blind working-aged persons to be unemployed in order to support the *statistical* presumption that blind people fit that description. Certainly for the period of the early 1900s leading up to the Social Security Act and continuing almost to the present, the evidence has been quite clear that by far most legally blind people of usual working ages have not been employed.

A new look. And now it can actually be shown that, as of the mid-1990s, within some rather broadly-defined subgroups of legally blind people and especially of other severely visually impaired people, a majority of them *were* employed. (These and subsequent data all refer to the United States, unless otherwise noted.)

Background and Purpose.

This project was a subcontract of Mississippi State University's (MSU) grant from the National Institute on Disability and Rehabilitation Research to support its Rehabilitation Research and Training Center on Blindness and Low Vision.

AFB (American Foundation for the Blind) proposed to analyze employment issues using a two-year supplement to a large national health interview survey, the National Health Interview Survey- Disability Supplement. NHIS-D was expected to yield sufficient numbers of legally blind and other visually impaired persons for analysis, and also promised a wealth of disability-related questions.

AFB's proposal zeroed in on two specific concerns. The first was in part a methodological issue, although it has substantive interest as well. Briefly, we saw a strategic opportunity to use the legally blind sample to extend our critique of a standard survey item to measure “work disability” (or “limitation in work”). The critique is that the measure confounds the impact of

physical/sensory impairments with the impact of inaccessible environments to explain why some people cannot work. That analysis now appears in Chapter 4 of this report.

Secondly, we proposed to conduct an analysis that would correct a seemingly important lack of attention to a lifespan perspective (considering age, career stage, and age-at-onset of visual impairment) as critical to understanding widely different employment issues for subgroups of the blind and visually impaired population. Unfortunately, the specific measure age-at-onset was not asked for visually impaired respondents, although it was asked for most other disabilities.

The main story. To look ahead to the main story that will unfold in the following chapters, the two key protagonists are *age* and *health status*. How we view those factors and how they can be dealt with in drawing policy and practice implications from this research are the plotlines of the story.

Age: The Life-span Telescope

An analytic tool. Speaking analytically, age is an indicator of two kinds of socially-structured processes:

(1) The “lifestage” process, which refers to differences that individuals experience as they grow older and move through life stages that are defined by societal norms. For example, as people age, their earnings typically move upwards to a “career peak.”

(2) The historical or “generational” process, which refers to differences among people of different ages that reflect their birth into and growth through different historical periods. For example, the current generation of youngsters, when they reach their 60s, will certainly be much greater users of computers than today’s generation of 60-somethings who are always playing catch-up in those skills because they were not born into the “Computer Age.”

Looking at employment from the “younger end.” – One’s lifestyle is, at this stage, still in formation. Employment decisions will affect one’s life course for decades, interacting with other major roles in family and community life that are also in development.

And from the “older end.” Shifting to looking at employment from the “older end,” options are or seem limited, largely obscured in the shadows cast by earlier experiences. Retirement as an option begins to outweigh the possibilities of identifying new career paths and learning new marketable skills. In sum, using this framework makes clear that issues around seeking or retaining jobs are fundamentally different for people, regardless of impairment status, at the early *versus* the later phase of their lifespan.

Age and age-at-onset. However, for those who do have serious impairments, the age effect is compounded. That is because most older people with impairments, especially visual impairments, acquired them along with aging. As newly disabled older workers – especially those with visual impairment – they face the need to learn an array of specialized skills for daily functioning, not to mention in order to carry out work tasks. By contrast, for younger people with serious impairments of any type who enter the labor force, it is likely that they learned basic adaptive skills along with their general education (especially for those who attended school since 1975 when PL.94-142, now the Individuals with Disabilities Education Act [IDEA], was passed).

Age and education. Age may have an *indirect* impact on employment. The major example is generational change in educational attainment. The average level of educational attainment in U.S. society has been increasing for decades, as has the level of education that

employers require for hiring. Thus, lower employment rates among older people than younger ones in part reflects lower educational levels attained by the former.

Age and other social characteristics. Although everyone's path through career stages is unique, there are regularities based on society's norms – and prejudices – about other social characteristics that affect employment roles. Gender stands out in that respect.

To a lesser extent and for different reasons, we expect to see employment effects of race-ethnicity, apart from gender roles. Race-ethnic patterns may be age-related, reflecting generational effects of the Black civil rights movement and related non-discrimination legislation of the 1960s.

Bringing Health Back In

“Medical Model” as a barrier. Analysts and advocates continue their decades-long uphill struggle to overcome the *nonmedical* barriers people with disabilities face in all arenas of societal participation. Nowhere has this message been harder to convey than in relation to employment where the very term "disabled" is defined in some contexts – notably Social Security income benefits – as synonymous with inability to be employed *because of* a medically determined condition, i.e., the "medical model" of disability.

Objective and Subjective Health Status

Multiple impairments. Prevalence of multiple impairments among people with any one type of impairment is generally estimated at between half and two-thirds – an estimate that obviously depends on how broadly or precisely impairments are defined and grouped.

The potential significance of multiple impairments for understanding employment issues is complex. *First*, multiple impairments might be viewed as indicators of greater severity of disabling consequences; however, it is possible that certain single impairments are more disabling than certain combinations of nonsevere impairments. *Second*, multiple impairments can be seen from a rehabilitation perspective. Even if one or more of the combined impairments are not severe, the specific combinations might make certain rehabilitation techniques ineffective. For example, even mild hearing loss greatly complicates O&M training for blind people.

Third, multiple impairments also can be viewed from the perspective of whether they are causally-related to each other, or only coincidentally converge. That is primarily an epidemiological research concern aimed at better prevention of conditions that are “secondary to” another condition.

Fourth, whether or not multiple conditions are causally related, the fact that individuals have multiple impairments is likely to indicate they also have poorer health status in the sense that mainly interests us here – that is, when illness, pain or weakness on an acute or chronic basis absorb individuals' time and energy to the detriment of their participation in employment. When this aspect is the focus, multiple impairments typically are called “co-morbidities.”

General health status. To bring health back in to the analysis in the most pointed way, we seek a measure that captures the debilitating conditions of illness – notably pain, weakness, fever – that absorb one's attention to the exclusion of other activities. NHIS-D offers a few indicators, discussed in Chapters 2 and 5. But the best tool is a question that asks for an overall assessment of one's health, using a range of options from excellent to poor. "Self perceived health" has been found in many studies to be as effective or more so than physician records in

predicting current and even future objective health status.

CHAPTER 2

Methodology

What The Non-Technical Reader Needs To Know About The Methods

Where do the data come from? The data are from the 1994 and 1995 National Health Interview Survey, conducted by the National Center for Health Statistics. The very large sample is selected so that it represents everyone in the U. S. who lives in a household (or is a college student living away from home). That means it excludes people in institutions such as nursing homes or prisons or in the military. This report uses three parts of the survey. The Core, made up of questions asked every year; and Phase 1 and Phase 2, which comprise the Disability Supplement.

How big is the sample? The Core and Phase 1 were asked of everyone in the sample. We include only the people who were 18-69 years old —128,001 people over the 2 year study. Phase 2 questions were asked about a year after the first interview to the 18,577 people whose answers to the Core and Phase 1 met criteria that indicated they were likely to have significant health problems or impairments. The 1,603 people who reported serious visual impairment expected to last at least 12 months in Phase 1 were included in Phase 2; of them, 334 reported they were legally blind.

What kind of statistics do we look at? To analyze the data, we mainly use percentages from cross-tabulations that contrast different groups. We concentrate on differences of 10% or greater, and especially on large differences — 30% or larger — because of their possible significance for policy. We also tested standardized effect sizes and reports when a difference less than 10% met the criterion for noticeable effect.

When we make comparisons between subgroups, we sometimes run into a problem: the number of people in the sample is too small. If the sample has fewer than 20 people in a subgroup, we do not report percentages for that subgroup.

CHAPTER 3
Age, Other Social Characteristics and Employment
Among People with Serious Visual Impairment,
Compared to the General Public and to People with Nonvisual Impairment

Summary

- Impairment status – even serious visual impairment – is not enough to tell you whether someone is or is not employed.
In the U.S., in 1994-95, about two-fifths of people with serious visual impairment, aged 18-69, *were* employed; almost all the others were not in the labor force.
- But, impairment matters.
Impairment status – meaning “either that one is in the general public and has NO serious impairment” *or* “has a serious visual impairment” *or* “serious non-visual impairment” – can tell you a lot, statistically, about people’s employment status. Compared to the *two-fifths employed* among people with serious visual impairment, *four-fifths* of people in the general public were employed.
- And age *really* matters, regardless of impairment.
Employment rates differ enormously by age groups, giving rise to gaps as large as 60% between age subgroups among people who are without impairment, and 40% between age subgroups among people with serious visual impairment.
- Age pervades employment rates, regardless of other social characteristics and impairment status.
Age affects employment rates among women and men; among the majority race/ethnic group and the minority group; and at every educational level.
- Higher education overrides impairment effects, for *younger* persons.
There is hardly any difference in employment rate among college graduates, 18-54, with serious visual impairment (82%) and those in the general public (90%). (Although this difference crosses the line that defines a small but noticeable standardized effect.)
- Employment, itself, tends to be a lifestyle equalizer across impairment statuses.
Working constitutes one’s major life role for people, whether in the general public or with serious impairment, if they are employed.
- Not being employed seems a bleak option for too many people with serious visual impairment.
Compared to people without impairment, most of whom report productive life roles keeping house or going to school if they are not employed, a bare majority (52%) of people with serious visual impairment report their major activity over the past year was “something else.” We know too little about what “something else” really means or about whether these people want to work. Those are hot

trails to follow in further analysis.

CHAPTER 4

Age and “The Employment Connection” Among People with Serious Visual Impairment: Legally Blind vs. Others

How Much Difference Does Legal Blindness Make?

Just how wide apart are the employment experiences — at least insofar as they are captured in statistics — of people who are legally blind, compared to others with serious visual impairment?

What picture emerges when we compare employment rates of legally blind and other visually impaired people *within* age groups, as the lifespan perspective says we should? The apparent disadvantage of legal blindness relative to other visual impairment is greater among younger people (18-54 years) than among older ones, but that contrast is also muted: There is a 17% difference in employment rates between younger people who are legally blind (42% employed) and their age counterparts who have other visual impairment (59% employed). The difference between the vision status groups who are older is a bit smaller. Among people 55-69 years old, 11 percentage points separates the employment rate among legally blind persons and other visually impaired (9% vs. 20% employed).

Full-time versus part-time employment. The main finding is that while most visually impaired workers are working full-time, a high proportion are part-time - about 27% of those who are employed are part-timers. Not surprisingly, older workers are more likely to be part-timers than are younger workers.

For the younger groups of legally blind and other visually impaired workers, both have sufficiently large sample numbers to make a comparison. We find there is no difference between them — about 23% of both groups are part-timers. (That is unlike the earlier finding that younger legally blind people are less likely to be employed at all than younger people with other visual impairment.) Unfortunately this comparison could not be made for the older age groups, as the legally blind sample consisted of too few cases.

Of course, because a lower percentage of younger legally blind people are working, the overall percentage who are full-time workers is only 32%, compared to 46% of other visually impaired people who are full-time workers.

Ever worked/Never worked. Next we move on to the majority of the visually impaired population (i.e., those who were *not* employed) and to a long-range perspective on the employment connection, whether they have *ever* worked or not.

We find that only very small minorities of all subgroups have never worked, ranging from a high of 15% among younger people who are legally blind to only 5% of older legally blind persons, and only 6% of both younger and older people with other visual impairment.

“Work Limitation” - What does it measure?

A pervasive survey measure in research on work and disability is some variation of the two-part question:

“Does any impairment or health problem now keep you from working at a job or business?”

[IF “no”] “Are you limited in the kind or amount of work you can do because of any impairment or health problem?”

We think of that question as a “subjective” measure; in fact, although most survey respondents would be astonished to learn this, it can be said to reflect their *theory* about the relationship of work and disability. That question was designed for, and is still often used as a reasonable stand-in for, an *objective* measure of the severity of people’s impairments.

The medical model assumes that a person’s biological condition (“health, disability or impairment”) directly *causes*, and more importantly, *fully accounts for* constraints on his/her ability to work. The “new paradigm of disability” — sometimes called “the environmental paradigm” — rejects that assumption. It posits that environmental factors, such as architectural or communications barriers found in the workplace or while trying to get there, interact with the severity of the individual’s impairments, to determine whether one can work. A more extreme version posits that environmental factors *completely account for* whether a person with even the most severe impairments, can work. National policy has accepted the new paradigm, while retaining the old, thus creating a crazy quilt of policy assumptions.

Logically, if the medical model is the correct way to understand the effects of impairment on ability to work, everybody who meets the legal blindness definition should be at least limited in his/her ability to work, if not prevented from working. More to the point, if the medical model prevails, then *nonmedical* social factors that typically affect labor market opportunity, such as education or race/ethnicity, would not modify the impact of impairment on whether one can work. If social factors do have such an effect, that is evidence that environmental factors in general interact with impairment to determine “work disability” or “limitation in work.”

“And the winner is....” Quite conclusively, the environmental model is the winner. Nearly 30% of legally blind people, ages 18-69 combined, report that they are *not* limited in work due to their impairment. Recall that the medical model, strictly speaking, predicts that everyone who is legally blind is at least limited in work and probably prevented from working. The smallest percentage (14%) say they are limited “in amount or kind of work” because of their condition. The vast majority (86%) identify themselves at one extreme or the other — either unable to work *or* not even limited in work.

The majority (56%) do say, as the medical model predicts, that they are prevented from working because of their condition. We may speculate about several factors that influence people who hold that belief.

Two social factors make a huge difference, and they are the ones we would expect — age and education. Others, gender and race/ethnicity, make no difference or very little difference to legally blind respondents’ perception of their ability to work.

The effect of age is most evident by focusing on the percentages who say they are “unable to work” — ranging from a strong minority (39%) in the youngest group (18-21 years old) to a hefty majority (72%) at the oldest end (65-69 years old). It is of great interest to note that the same level appears in the 60-64 year old groups and even, going lower in age, the 55-59 year olds. Even more striking is the fact that those who are 50-54 years old hardly differ from those who are older in their belief about their ability to work: two-thirds of them report they cannot work because of a health condition or impairment.

Over half (52%) of legally blind college graduates believe they do *not* have a work

limitation because of their impairment! That finding shows that these legally blind persons would have been left out of the denominator of the employment rate among people with disabilities in traditional analyses that rely on the “limitation in work” measure to define “disability”. Of course they would also be left out of the numerator, and that’s the problem. The rate of employment in this group is much higher than applies to those with less education, who more often say their impairment limits them.

The effect of lack of additional impairment on perceived ability to work is powerful. Among legally blind people with no other impairment, only 15% say they are unable to work because of their impairment; only 17% say they are limited in work for that same reason; and fully 68% say they are *not limited in type or amount* of work due to their impairment.

Interest in working (if not employed) - From a rehabilitation counselor’s point of view, one of the main barriers (or facilitator, as the case may be) to work is the client’s motivation to work. Some professionals would consider motivation the bedrock of anything one needs to know about people’s “employment connection.”

The results would suggest that people with serious visual impairment, who are not employed, have a very low “employment connection,” if one were to rest the case entirely on this indicator — which we strongly advise one should not do. Only 14 % of those included in the combined measure, reported active interest in working as indicated mainly by having looked for work recently or planning to do so soon. Interestingly, there is no difference on this measure between people who are legally blind and others who are visually impaired. Active interest is, as expected, considerably higher among younger persons (24%) than older ones (only 6%!), again with no difference within age groups between people who are legally blind or other visually impaired.

We plan to examine in the future the many other clues to “interest in working” that might apply to the 76% of younger persons who were not working and did not emerge as interested, according to this very constrained indicator.

Discrimination. The questions asked were geared to whether respondents were currently employed or not, and referred to whether they had experienced in the past 5 years any of some specified types of job-related disadvantage (e.g., being fired, told to resign or refused a promotion) because of an “ongoing health problem, impairment, or disability.”

The results from NHIS-D reflect the serious limitation that people were not asked whether they had experienced discrimination in *seeking* a job. Over 90% of respondents report that they have not experienced any of the specified types of discrimination in the past 5 years. That percentage does not vary notably between those who are legally blind *versus* other severely visually impaired, or employed *versus* not employed, nor younger *versus* older.

Receipt of VR. Among younger legally blind persons, of those who are employed, only 30% report having received VR services, whereas among those not employed, 44% report having received VR. Thus, a majority in both those groups of younger persons have not (or do not recall having) received VR. (Small sample size prevents the same comparison for older legally blind persons.) A similar contrast applies to employed and not employed younger people with other visual impairment, although the level of having received VR is lower. For older people, whether legally blind or other visually impaired, there is no difference in the extent of VR between those who are employed or not employed; for both groups, the levels are quite low. The findings on VR are a matter of concern in substantive terms. They suggest that many people who presumably could benefit from services are not reached, or reject the opportunity.

Volunteer work. The results for people with serious visual impairment (we have not examined

this for people with nonvisual impairment) belie our expectations. *First*, the percentage who report volunteering is quite low, below 20% of the whole age span under study here, being slightly higher among younger people than older ones. Within age groups, interestingly, there is no difference between legally blind and other visually impaired people in the percentage who report they had done volunteer work in the past year.

Of course, one reason for interest in volunteering by people with serious visual impairment is to gain some understanding of the substantial group whose major role was “something else.” However, rather than serving as an explanation of what people who reported “something else” actually were doing, the highest rates of volunteering were reported by people who reported either working or being a student; and a little lower among people who reported keeping house as their main activity the past year. Indeed, volunteering does little to explain the activities of people who reported “something else,” since it was lowest in that group.

On one hand, this is confirmation of the adage well-understood by people who organize volunteer activities in the general public - “Ask a busy person if you want to get something done.”

On the other hand, that adage might in fact be part of the explanation for the low percentages of people with disabilities who do volunteer work. Perhaps mainstream coordinators of volunteer activities have low expectations or never thought of people with disabilities as a resource, and therefore do not call upon them.

But the main answer, we suspect, is in the health arena. The next chapter examines health problems that overwhelm the time of those who cannot engage in productive roles of working, studying or maintaining a household.

CHAPTER 5

Too Sick to Work? Facing Up to Health Issues in Employment of People with Serious Visual Impairments: Legally Blind vs. Others

Poor health, poor employment rates. Health status apparently has a somewhat greater impact on the employment rates of people with visual impairment who are not legally blind, than on those who are legally blind.

The gap between employment rates of visually impaired people who have excellent/good health (66% employed) and those who have poor health (13% employed) is larger than the gap in employment rates between legally blind people in excellent/good health (42% employed) and those in poor health (1% employed).

Possibly factors other than health clamp a heavier lid on the employment rate of people who are legally blind than of other visually impaired people. We see that even among people with excellent/good health, only 42% of those who are legally blind were employed, compared to fully two-thirds (66%) among other visually impaired people. Those who are legally blind average a somewhat younger age than other visually impaired people, thus age is not the explanation.

A healthy majority. Among people who are legally blind, ages 18-69, we find a healthy majority — in two senses of the phrase! That is, 60% of legally blind working aged people report they have excellent/good health. Only 18% of those who are legally blind, ages 18-69, reported poor health. Of course, younger people are considerably more likely to report excellent/good

health: Among legally blind persons ages 18-54 years, fully two-thirds (66%) reported excellent/good health. That percentage drops among older legally blind persons, but it stays relatively high: nearly one-half (48%) of older legally blind persons, 55-69, also report their health to be excellent/good. However, in this older group, one-quarter (26%) report "poor health."

Now comparing with other visually impaired people, only a bare majority (52%) of other visually impaired people, 18-69, report the best of health. And it is surprising that within each of the broad age groups, other visually impaired people seem slightly less healthy than those who are legally blind. The differences are small and worth noting only because the data lean consistently in that direction.

Beginning to put it together. Now we examine the influence of age within health statuses, and conversely, of health within age statuses. Among legally blind people in excellent/good health, those who are older are much less likely to be employed than those who are younger, and that holds too for those who say their health is "fair."

It is also important to realize the enormous effect of health among the younger group: only 3% of that group is employed if their health is "poor." We recognize, however, that age may affect that result also, because of the broad age range involved. That is, those who say "poor" health may be closer to the 54 year old end of the range.

People with other serious visual impairment experience somewhat higher levels of employment when age and health status are both taken into account. Thus, in the younger, healthiest group of people with other visual impairment (not legally blind), fully 76% are employed. If they are in excellent/good health but in the later lifestage, only 36% are employed. Looking at those in poor health even though in the younger age range, only 19% of people with visual impairment are employed. If they are both older and in poor health, the figure dives to 7%.

Picking up another strand of the story that we began in earlier chapters, what more can we deduce about liferoles — specifically about the possibility of "rolelessness" — given that we now know both lifestage and health status of people who are legally blind or have other serious visual impairment? The results show that reports of "working" as the major life role closely match the percentages who reported they were employed at phase 2, reflecting the same age and health effects.

Overall, poor health is a powerful explanation for the category doing "something else" at each age level. Among legally blind younger people who report poor health, 67% are found in the doing "something else" category, and fully 85% of older legally blind people in poor health appear to be occupied largely by health needs.

Among others with serious visual impairment, we see that 66% of older visually impaired persons in poor health report they are doing "something else," and a *relatively* small percentage (48% doing something else) among younger persons in poor health.

The demands of illness have been summarized in the concept of "the sick role." Societal norms for being sick require being a good "patient," and relinquishing both the obligations and the rewards of usual roles in order to try to get well. It has been a major thrust of disability activism, and a major reason for rejecting the medical model of disability, to disavow society's assumption that the "sick role" applies to having longterm impairments. But what if the person with impairments *is* sick or sickly for long periods? That does seem to apply to those who say their health is poor or fair, *and* their major activity over the past year has been "something else" besides working, keeping house, or going to school.

We are left with a now narrowed-down uncertainty, and concern, about people who report they are doing “something else” and also say they are in excellent/good health. Among legally blind younger people in such good health, 20% remain in that nonspecific life-role category, as do fully 48% of legally blind, very healthy people ages 55-69. The percentages of healthy younger and older people with other serious visual impairment who remain in the nonspecific role category are much lower because, as we have seen, they are more likely to be working.

Another dimension: Multiple vs. single impairment. As expected, the majority of people with serious visual impairment, ages 18-69, do have another serious impairment. The rate of multiple impairment is notably higher in the group who are legally blind (80%) than in the other visually impaired group (62%). This is in spite of the somewhat younger age of those who are legally blind.

We find an even more dramatic effect on employment rates when we take both multiple impairment status and age group into account. Fully 80% are employed among legally blind persons who are younger (18-54 years) and without any other serious impairment! That is about the same percentage as among other younger persons with only a serious visual impairment — 76% employed. And most stunning, that is essentially the same as the general population of the same age group — 82% employed.

There is great but not total overlap of health status and impairment status. About 40-50% more of those with a single impairment report excellent/good health than do persons with multiple impairments, within age groups.

Excellent/good health, poor employment rates. The employment rate among legally blind people with no other impairment and in excellent/good health is 70% (see table on page 15, Column A). However, they constitute only 18% of all legally blind people in the ages 18-69 (see table on page 15, Column B). By contrast, among legally blind people with multiple impairments and poor health, employment seems the wrong focus for services: only 1% are employed. For them, access to appropriate health care should, it seems, be the service priority. By coincidence, that contrast group also makes up 18% of people who are legally blind of working age.

The most interesting group from the point of view of targeting policy and practice is the group of legally blind people who are in excellent/good health *and* have multiple impairments. Even though they have the health advantage, their employment rate is only 30%. By knowing both their health and their impairment status, we can infer that the issues affecting their low employment rate are the kinds that both the disability rights movement and rehabilitation try to address. This is the most sizeable of the subgroups in the legally blind population, making up 41% of the total. They present the greatest challenge and opportunity to make a difference in the overall employment rate of people who are legally blind.

Turning to a similar review of the data applying to people with other visual impairment, the message is not quite as dramatic. For example in the critical group with excellent/good health but with multiple impairments, the employment rate is somewhat higher but still clearly problematic: 56%. The group is not relatively as large, only 22% of the population of people with serious visual impairment. However, here we should take into account that overall the visually impaired group is much larger than the group who are legally blind. Thus substantial numbers of people can be helped when their employment needs are addressed in a targeted way.

Pinpointing the effects of age and health. We conducted a logistic regression analysis that helps to wrap up the picture. The analysis was conducted for the combined group of legally blind and other seriously visually impaired persons.

The set of factors we used greatly increased our odds of predicting a visually impaired person's employment status. All the factors except gender made a better-than-chance improvement to our odds; race-ethnicity made a small difference; and education made a greater difference. But even knowing those factors, we found that age and health are each of outstanding importance to predicting employment in this group: seriously visually impaired people at ages 18-54 were a bit over 5 times more likely to be employed than those in the older group. People in excellent-to-good health were almost 5 times more likely than those in fair or poor health to be employed.

With that assurance that the themes of this analysis can add to the understanding that traditional analyses have explored in some depth, we turn to drawing out some conclusions and implications from the story that has unfolded through these chapters.

CHAPTER 6

Implications for Policy and Practice

The problem may be the problem. It is with good reason that strategic planners often restrain their clients from charging ahead to find creative solutions to whatever problem prompted the client to develop a plan. It is actually more likely than not that leaders will specify their field's problem incorrectly. If a problem has persisted, and if the leaders have been around for a long time, it is highly possible that problem-definitions relevant during the early stages of their career have shifted sufficiently to be out-of-date. Some leaders may recognize that, especially the younger ones, but most typically do not.

Also, there may be a dearth of research. Especially where resources are scarce, a field's leaders may be reluctant to drain (as they see it) any dollars from services into research. In reality (since this example is getting less and less hypothetical), solid and reasonably detailed information on the national employment situation of blind and visually impaired people has been seriously limited and has not existed specifically for people who are legally blind.

Another, more intractable reason that problems are likely to be mis-specified is provocative to mention, and may not apply here, but should at least be considered. That is the possibility that, probably subconsciously, it is in the interests of certain people or organizations with power to hang on to the incorrect definition and possibly even to hang on to the problem. Perhaps the incorrect definition leads to solutions that can use the skills existing leaders have (this is closely related to the first reason). That interpretation of much of blindness rehabilitation in the late 1960s was the extremely controversial conclusion reached by Robert Scott in *The Making of Blind Men* (1969). Scott observed that some agencies, through the very process of rehabilitation they used, which was ostensibly directed to promoting "independence," taught clients a form of dependence ("learned helplessness") on the service system that was not inherent in their loss of ability to see.

But the *main* reason for incorrectly specifying the problem is more benign – most societal problems worth devoting a great deal of attention to have been around a long time and are truly very complex and difficult to unravel.

Lifestage and the two employment problems. There are different ways that societal problems can be mis-specified. One is to merge together a number of issues that should always be kept separate. This means beginning to talk about two or more distinct problems where it has been habitual to address one, more massive problem.

What we were able to see is that age is a very powerful employment indicator. It strongly hints that the employment situation holds different opportunity and appeal for people depending on the “end of the lifespan telescope” they are looking through -- peering at what work can mean and what barriers exist from the perspective of entry or early careers *versus* the perspective where retirement is a live option.

We do not mean to imply that the field of blindness services is ignorant of this fundamental set of facts. Recognition that job retention and career entry are very different rehabilitation challenges is clearly well-established. But it is that very fact of a well-established set of distinctions in the practice sector of the field that sets the stage for our recommendation. Typically when “the problem” of employment is packaged for advocacy, the statistics apply to the whole age range.

But our analysis suggested the importance of age and lifestage in several ways. It showed that the age difference was linked to other factors of importance – especially the health issues that we will turn to shortly – but more importantly, the age difference also stood out as an operative factor in employment rates over and above the other factors.

Recommendation: Whenever statistics and other descriptions about employment of blind and visually impaired people are used in policy design and advocacy situations, they should be presented separately for younger, early career stage, and older, later career stage individuals.

Diagnosing the effects of health and multiple impairment. We believe that inadequate attention has been given to general health status in rehabilitation and in activism around the employment disadvantage of people who are blind or visually impaired. By contrast, it has been recognized that multiple impairment is an important factor and needs greater attention in policy and practice. Not heeded to date has been the joint effect of health and multiple impairment. We showed in our final data presentation that there is an amazing span of employment status when those two factors are taken into account. At the extremes -- focusing now just on people who are legally blind although the same message applies when the larger visually impaired population is considered: people who are “only” legally blind and in excellent-to-good health had an employment rate of 70%. Those who are legally blind, also have one or more other impairments, and are in poor health, had an employment rate of 1 %

That kind of impact is not to be ignored, either in “diagnosing” the problem for the field of service delivery or in trying to explain to policy makers what is needed. But we have never seen employment data presented in terms of differing health status of people who are blind.

Recommendation. The knowledge base on the health status and health care issues of people who are blind or visually impaired is still rudimentary, making that a priority for future research. But there is enough evidence now to urge that health status move on to the policy analysis agenda for those concerned about employment of blind and visually impaired people.

In closing: How big is the problem anyway? Societal problems may be mis-specified in yet another way that seems to apply here, and is related to the previous ones. The magnitude of the problem may be exaggerated or minimized, leading to possible misallocation of resources, but more insidiously, to the inability to judge when progress is being made, or conversely, ground is being lost in efforts at tackling the problem(s).

Although it will take further analyses of these data, and a chance to gather reactions from others, we believe that a useful application of this study will be to re-examine which subgroups of the blind and visually impaired population should be considered in monitoring (a) where the

employment rate stands now, and (b) how it responds to policy and practice initiatives that are on the scene or will be devised in the near future.

From the data we have reviewed in the above chapters, it seems that there are meaningful subgroups who should not be in the denominator of the rate (e.g., those in persistent poor health) – and others that have sometimes been left out but should definitely be in (e.g., people who are well accommodated on their jobs and may drop out of some employment statistics because they are not counted as “limited in work”).

Our closing note is the hope that the kind of statistical analysis that has been conducted and could be pursued much further in the NHIS-D goldmine of data, will be seen by others to be as exciting and useful as we feel it has been and believe it can be in the future.

Employment (Phase 2) by Serious Visual Impairment Status for Subgroups Defined by Both Multiple Impairment and Health Status, Ages 18-69: U.S., 1994-95

(A. Percentage employed within each subgroup)

(B. Relative size of the subgroups as a percentage)

Serious Visual Impairment Status	Multiply vs. Singly Impaired	Health Status	(A) Percentage Employed	(B) Percentage of Total %
Legally Blind	Multiply Impaired	Excellent/Good Health	30%	41
		Fair Health	19%	20
		Poor Health	1%	18
	Singly Impaired	Excellent/Good Health	70%	18
		Fair Health	<i>a</i>	2
		Poor Health	<i>a</i>	<i>b</i>
		Total	30%	99%

Other Visually Impaired	Multiply vs. Singly Impaired	Health Status	(A) Percentage Employed	(B) Percentage of Total %
	Multiply Impaired	Excellent/Good Health	56%	22
		Fair Health	23%	18
		Poor Health	12%	22
	Singly Impaired	Excellent/Good Health	73%	30
		Fair Health	45%	6
		Poor Health	<i>a</i>	1
		Total	44%	99%

Due to rounding, percentages may not add up exactly 100%

Note: a – Too few sample cases to analyze; b – less than 1%

Source: Data from National Center for Health Statistics (1998). Data File Documentation, National Health Interview Survey on Disability, Phase 1 and Phase 2, 1994 and 1995. Calculations and interpretations by AFB.