Workplace Accommodation Use for Individuals with Vision Impairment

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Presented by Nathan W. Moon, PhD
Background

• The Workforce is Aging
  – In 2012, 19% of all employees will be 55 or older\(^1\)

• Age is Highest Predictor of Disability
  – About 30% of those 65-74 have a disability\(^2\)

Purpose

Study Purpose:
To examine accommodation use and its characteristics.

Presentation Focus:
Accommodation use by those with different vision impairments across age groups.
Methods

• Survey relating characteristics of the individual to the accommodation
  – Administered dominantly electronically
  – Marketed through consumer lists, national publication lists, social networking venues.
  – Inclusion Criteria:
    • Individual has 1 or more functional limitations
    • Individual is currently employed or volunteers
Job Characteristics

- EEOC Categorization
- Relationship to Employer
- Location of Work
- Pay Rate and Hours/wk
Functional Limitations

Broad functional limitation categories were selected from the ICF and further delineated by specific activities.

Example: Vision

“I am unable to see details such as newspaper print, but I can see obstacles in my path.”
Accommodations

• Accommodations divided into 4 categories
  – Universal features
  – Adaptations
  – Help or Assistance
  – Assistive Technology
Assistive Technology

Developed from the National Classification System on Assistive Technology
- 4 level hierarchy of assistive technology classification

Examples:
- Sensory Elements > Optical Aids > Specialized Writing Devices > Signature Guides and Stamps
- Computer > Hardware > Input Devices > Voice Input
Satisfaction, Importance, Frequency

• Recorded for each accommodation individually.
• Instrument was nominal Likert scale for each construct.
Population Demographics

374 individuals responded to the survey, of which 101 reported vision impairment.

73% Female; 52% under the age 55

Race:
• 3% African
• 6% Asian
• 5% Native American
• 85% Caucasian

Ethnicity: 94% non-Hispanic

3/23/2011
Population Demographics

Educational Background

- Some High School / Diploma: 3%
- Some College / Associates Degree: 20%
- Bachelors Degree: 40%
- Master’s Degree: 34%
- Ph.D. / Professional Degree: 3%
## Population Job Characteristics

<table>
<thead>
<tr>
<th>Job Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>One full-time</td>
<td>61%</td>
</tr>
<tr>
<td>One part-time</td>
<td>24%</td>
</tr>
<tr>
<td>Multiple Jobs</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>64%</td>
</tr>
<tr>
<td>Self – Employed</td>
<td>21%</td>
</tr>
<tr>
<td>Volunteer</td>
<td>7%</td>
</tr>
</tbody>
</table>
Population – Job Characteristics

Job Categories

- Professionals: 41%
- Managers: 8%
- Service Workers: 22%
- Clerical: 15%
- Sales: 4%
- Technicians: 7%
- Craft Workers: 3%
Population – Job Characteristics

- Same Site Daily: 58%
- Some Telecommuting: 16%
- Different Locations Daily: 13%
- Home: 13%
A WORD ON STATISTICAL ANALYSIS
Respondents’ Limitation Group

- Blind: 39%
- Light Sensitivity: 18%
- Low Vision: 43%
Additional Limitations

Older workers with vision impairment have MORE limitations than younger workers.

Older workers average 0.74 additional limitations.
Younger workers average 0.65 additional limitations.

<table>
<thead>
<tr>
<th></th>
<th>Under age 55</th>
<th>Over age 55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>25%</td>
<td>29%</td>
</tr>
<tr>
<td>Upper Extremity</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>Hearing</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Speech</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Mental Function</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Accommodation Use

Age is a predictor of number of accommodations used (p = 0.075)
- Younger workers used 7.8 accommodations
- Older workers used 6.4 accommodations

Type of Vision Limitation is strongly related to number of accommodations used (p=0.001)
- Light Sensitivity ~ 4.4 accommodations
- Low Vision ~ 7.2 accommodations
- Blindness ~ 8.6 accommodations
Most Common Accommodations

• Adjustable Workspace
• Alternate Formats
• Computer Output Devices
• Reading Devices
• Relocated or Modified Tools
• Vision Devices
Accommodation Use Described by Vision Group

% of group using accommodation

- Adj. Workspace
- Alt Formats
- Computer output
- Reading Devices
- Relocated/Mod Tools
- Vision Devices

Categories: light sensitivity, low vision, blind
Accommodation Use Described by Age Group

% of group using accommodation

- Ad. Workspace
- Alt. Formats
- Computer Output
- Reading Devices
- Relocated Modified Tools
- Vision Devices

- Under 55
- Over 55
Satisfaction with Accommodations

Satisfaction value averages expressed Neutral satisfaction with the accommodations

Satisfaction with the accommodation did not vary with either factor (age group or vision limitation).
Perceived Importance of Accommodations

Importance of these accommodations ranged from “important” to “very important”

- Age group strongly influenced
  - Adjustable Workspace ($p = 0.035$)
  - Computer Output Devices ($p = 0.014$)

- Type of Vision Limitation strongly influenced
  - Reading Devices ($P=0.006$)
Frequency of Use of Accommodations

Accommodations used “frequently” or “always”

• Age group had a strong influence on frequency of use of
  – Adjustable Workspace (p = 0.008)

• Type of vision limitation had a influence on frequency of use of
  – Reading Devices (p = 0.01)
Conclusions

• Older workers had more “secondary” limitations
• Older workers used fewer accommodations
• Commonly used accommodations were assistive technology based.
• Individuals are neutral in their satisfaction of the commonly used accommodations
Study limitations

- Demographics are homogenous.
- Respondent pool is limited
- Preliminary analysis
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