Assessing Time Use in the National Study of Daily Experiences

David Almeida
Pennsylvania State University

This research was supported by grants from the National Institute on Aging, the National Institute of Mental Health, the John D. and Catherine T. MacArthur Foundation, and the Arthur P. Sloan Foundation
The National Study of *Daily Experiences*

**MIDUS**  
\[N = 6806\]

- **RDD**  
  \[n = 3032\]
  - Twin pairs: 987  
    \[n = 1974\]
  - Sibs of RDD  
    \[n = 1800\]

- **NSDE**  
  \[N = 1483\]

- **RDD (subsample)**  
  \[n = 1031\]
  - Twin Pairs (subsample)  
    116 MZ  
    110 same sex DZ  
    \[n = 452\]

- **NSDE (subsample)**  
  \[n = 1974\]
  - Twin pairs: 987  
    \[n = 1974\]

- **Sibs of RDD**  
  \[n = 1800\]
Mapping MIDUS Measures to NSDE

<table>
<thead>
<tr>
<th>MIDUS</th>
<th>NSDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td>Daily Symptoms</td>
</tr>
<tr>
<td>Psychological Well-Being</td>
<td>Health Behaviors</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>Daily Stressors</td>
</tr>
<tr>
<td></td>
<td>Mood</td>
</tr>
<tr>
<td></td>
<td>Time giving:</td>
</tr>
<tr>
<td></td>
<td>Family &amp; Community</td>
</tr>
</tbody>
</table>
Study Design

Sample: U.S Sample of 1483 adults aged 25-74

Procedure: Telephone interviews on eight consecutive evenings.

Information:
- Time use (activities that reflect Social Responsibility)
- Work Productivity
- Psychological Distress
- Physical Health Symptoms
- Health Behaviors
- Daily Stressors
Measures of Time Use

• Daily Estimates of time engaged in activities that reflect *Social Responsibility*:

• **Family Domain:**
  – Time with children
  – Informal assistance
  – Emotional support

• **Community Domain:**
  – Volunteering
  – Informal Assistance
  – Emotional Support
## Daily Giving Measures: Family

<table>
<thead>
<tr>
<th>Domains</th>
<th>Descriptive Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time with Children</td>
<td>Estimated number of hours and minutes per day spent doing things with children such as helping them with homework, playing with them, taking them places, or doing other things with them.</td>
</tr>
<tr>
<td>Informal Help</td>
<td>Estimated number of hours and minutes per day providing unpaid assistance such as free baby-sitting or help with shopping for family members (outside of their household).</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>Estimated number of hours and minutes per day providing emotional support such as comforting, listening to, or advising family members.</td>
</tr>
<tr>
<td>Domains</td>
<td>Descriptive Detail</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Volunteer Help</td>
<td>Estimated hours and minutes per day doing formal volunteer work at a church, hospital, senior center, or any other organization.</td>
</tr>
<tr>
<td>Informal Help</td>
<td>Estimated hours and minutes per day providing unpaid assistance such as free baby-sitting or help with shopping for friends, neighbors, coworkers, or others outside of the family.</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>Estimated hours and minutes per day providing emotional support such as comforting, listening to, or advising friends, neighbors, coworkers, or others outside of the family.</td>
</tr>
</tbody>
</table>
Goals of Analysis

• Gross Indication of Prevalence
• Individual and Group Differences in Time Use
• Within-person Variation in Time Use
• Within-person Covariation in Time Use
• Individual and Group Differences in Within-person Covariation in Time use
## Description of Daily Giving to Family and Community

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Hours per Week Mean (SD)</th>
<th>% of Sample who Gave Any Time</th>
<th>Hrs/Week Among of those Who Gave</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family Domains</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time with Children</td>
<td>13.3 (15.4)</td>
<td>73.8</td>
<td>17.7 (15.5)</td>
</tr>
<tr>
<td>Informal Help</td>
<td>1.5 (7.1)</td>
<td>18.8</td>
<td>8.0 (10.7)</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>1.6 (3.6)</td>
<td>51.8</td>
<td>3.3 (4.4)</td>
</tr>
<tr>
<td><strong>Community Domains</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer Help</td>
<td>.8 (2.2)</td>
<td>21.1</td>
<td>3.6 (3.5)</td>
</tr>
<tr>
<td>Informal Help</td>
<td>.8 (1.7)</td>
<td>24.3</td>
<td>3.4 (4.2)</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>1.7 (3.2)</td>
<td>66.9</td>
<td>2.5 (3.5)</td>
</tr>
</tbody>
</table>
Logistic Regressions of the Social Demography of People Who Give to Family (Odds Ratios)

Family Domain

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Any Time with Children</th>
<th>Any Informal Help</th>
<th>Any Emotional Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (H.S.=0)</td>
<td>1.05</td>
<td>.82*</td>
<td>1.25*</td>
</tr>
<tr>
<td>Married</td>
<td>3.33*</td>
<td>1.26</td>
<td>1.06</td>
</tr>
<tr>
<td># of Children Home</td>
<td>9.16*</td>
<td>1.02</td>
<td>1.15</td>
</tr>
<tr>
<td>Age (young adult=0)</td>
<td>2.30*</td>
<td>1.33</td>
<td>1.14</td>
</tr>
<tr>
<td>Gender (male = 0)</td>
<td>1.62*</td>
<td>1.57*</td>
<td>1.36*</td>
</tr>
<tr>
<td>Employment Hours</td>
<td>.85*</td>
<td>.88*</td>
<td>.93</td>
</tr>
</tbody>
</table>

*p < .01.
# Logistic Regressions of the Social Demography of People Who Give to the Community (Odds Ratios)

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Community Domain</th>
<th>Community Domain</th>
<th>Community Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any Volunteer Help</td>
<td>Any Informal Help</td>
<td>Any Emotional Support</td>
</tr>
<tr>
<td>Education (H.S.=0)</td>
<td>1.53*</td>
<td>1.24*</td>
<td>1.69*</td>
</tr>
<tr>
<td>Married</td>
<td>1.61*</td>
<td>.74*</td>
<td>.62*</td>
</tr>
<tr>
<td># of Children Home</td>
<td>1.42*</td>
<td>1.17</td>
<td>.94</td>
</tr>
<tr>
<td>Age (young adult=0)</td>
<td>1.61*</td>
<td>1.00</td>
<td>1.08</td>
</tr>
<tr>
<td>Gender (male = 0)</td>
<td>.89</td>
<td>.84*</td>
<td>2.21*</td>
</tr>
<tr>
<td>Employment Hours</td>
<td>.96</td>
<td>.92</td>
<td>.98</td>
</tr>
</tbody>
</table>

*p < .01.
Weekly Hours of Giving By Domain and Gender

- Emotional Support - Community
- Informal Help - Community
- Volunteer Help
- Emotional Support - Family
- Informal Help - Family
- Time with Children
Weekly Hours of Giving by Domain and Work Status

Weekly Hours of Giving by Domain and Work Status

- Emotional Support - Community
- Informal Help - Community
- Volunteer Help
- Emotional Support - Family
- Informal Help - Family
- Time with Children

<table>
<thead>
<tr>
<th>Domain</th>
<th>Working</th>
<th>Not Working</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Support - Community</td>
<td>1.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Informal Help - Community</td>
<td>0.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Volunteer Help</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Emotional Support - Family</td>
<td>1.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Informal Help - Family</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Time with Children</td>
<td>13.3</td>
<td>16.4</td>
</tr>
</tbody>
</table>
Between and Within Person Variances in Time Spent with Family

- **Time Spent with Children**
  - Within: 64%
  - Between: 36%

- **Time Spent Giving Assistance**
  - Within: 52%
  - Between: 48%

- **Time Spent Giving Emotional Support**
  - Within: 64%
  - Between: 36%
Between and Within Person Variances in Time Spent in Community

- **Time Spent Volunteering**
  - Within: 71%
  - Between: 29%

- **Time Spent Giving Assistance**
  - Within: 73%
  - Between: 27%

- **Time Spent Giving Emotional Support**
  - Within: 53%
  - Between: 47%
Weekly Rhythms of Paid Work and Child Care Hours: Weekday Workers

- **Men's Paid Work**
  - Mon: 7
  - Tue: 8
  - Wed: 9
  - Thu: 8
  - Fri: 7
  - Sat: 0
  - Sun: 0

- **Women's Paid Work**
  - Mon: 6
  - Tue: 7
  - Wed: 8
  - Thu: 7
  - Fri: 6
  - Sat: 0
  - Sun: 0

- **Women's Child Care**
  - Mon: 2
  - Tue: 2
  - Wed: 3
  - Thu: 2
  - Fri: 1
  - Sat: 2
  - Sun: 1

- **Men's Child Care**
  - Mon: 1
  - Tue: 1
  - Wed: 2
  - Thu: 1
  - Fri: 0
  - Sat: 1
  - Sun: 0
Weekly Rhythms of Paid Work and Child Care Hours: Weekend Workers

<table>
<thead>
<tr>
<th>Men's Paid Work</th>
<th>Women's Paid Work</th>
<th>Women's Child Care</th>
<th>Men's Child Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Men's Paid Work**: The line starts high and decreases gradually, reaching the lowest on weekends.
- **Women's Paid Work**: The line starts lower than Men's Paid Work and gradually decreases, reaching the lowest on weekends.
- **Women's Child Care**: The line is lower than Men's Paid Work and decreases gradually, reaching the lowest on weekends.
- **Men's Child Care**: The line is lowest among all categories and decreases gradually, reaching the lowest on weekends.

*Note: The graph shows the average hours per day for each category on each day of the week.*
Costs and Benefits

- **Costs:**
  - Estimates Introduce Reporting Bias
  - Overlap of Activities

- **Benefits**
  - Lower Respondent Burden
  - Easier to obtain more occasions and information
  - Link to other daily experiences/events (e.g., mood, stressors, daily biomarkers)
Correlations of Employment Hours with Hours Giving to Family and Community

<table>
<thead>
<tr>
<th>Employment Hours</th>
<th>Between-Persons Correlations</th>
<th>Within-Persons Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family Domains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time with Children</td>
<td>-.17**</td>
<td>-.21**</td>
</tr>
<tr>
<td>Informal Help</td>
<td>-.02</td>
<td>-.22**</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>-.03</td>
<td>-.10*</td>
</tr>
<tr>
<td><strong>Community Domains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer Help</td>
<td>.02</td>
<td>-.23**</td>
</tr>
<tr>
<td>Informal Help</td>
<td>-.18**</td>
<td>-.15*</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>.07</td>
<td>.11*</td>
</tr>
</tbody>
</table>

*p < .01.
Workday Hours of Giving by Number of Paid Work Hours

- **2 HOURS MORE THAN USUAL**
  - Emotional Support: 0.35
  - Informal Help: 0.24
  - Volunteer Help: 0.038
  - Emotional Support: 0.077
  - Time with Children: 1.79

- **AVERAGE WORK HOURS**
  - Emotional Support: 0.38
  - Informal Help: 0.46
  - Volunteer Help: 0.45
  - Emotional Support: 0.95
  - Time with Children: 2.11

- **2 HOURS LESS THAN USUAL**
  - Emotional Support: 0.41
  - Informal Help: 0.42
  - Volunteer Help: 0.54
  - Emotional Support: 0.5
  - Time with Children: 2.43

- **Paid Work Hours**
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6

- **Hours Per Workday**
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6