Economic Stress

A Primer For Occupational Health Researchers

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Clemson University
Acknowledgments
APA surveys show money, work, and economy are top 3 sources of stress in US.
What is the link between OHP, Income and health?
Goals

• Brief review of current economic trends relevant to occupational health.

• Present a framework for organizing economic stress constructs.

• Discuss measurement issues in relation to financial stress.

• Highlight challenges and opportunities in economic stress research.
Economic Trends
Downturn caused massive employment disruption

Mass Layoffs, 2002 to 2012, 16 week moving avg

August 2008 – April 2010

Source: Bureau of Labor Statistics

http://www.davecoker.info/blog/2012/09/05/mass-layoffs-are-increasing/
Economic Downturn: 2007 vs. 2011

• **Food Stamp Enrollment**
  – 2007: 26 million in US
  – 2011: 43.2 million in US

• **Families in homeless shelters**
  – 2007: 131,000
  – 2009: 170,000

• **Living "paycheck to paycheck"**
  – 2007: 43% of US
  – 2010: 55% of US
Rising rates of long term unemployed

Much of recovery is in part-time jobs
Stagnant/Declining Minimum Wage

**Figure 1:** Real Value of the Federal Minimum Wage, 1968–2012 (in 2012 dollars)

Source: U.S. Department of Labor - Wage and Hour Division, Adjusted for inflation with the Consumer Price Index
Working Poor

Food Stamps in US
2007: 26 million
2011: 43.2 million

Families in homeless shelters
2007: 131,000
2009: 170,000

Living "paycheck to paycheck"
2007: 43% of US
2010: 55% of US
Low Income Working Families: Health Concerns

• ~25% of US children in low-income working families (median wage: $9/hour). These families
  – Receive fewer health & vacation benefits.
  – Face greater food and housing hardships.
  – Have greater proportional costs of child care
  – Are over twice as likely to report fair or poor health
  – Have children who are more likely to have health problems; lower school engagement; more behavioral and emotional problems

(The Urban Institute, 2005)
A World-Wide Crisis

• 18-50M jobs lost in 2009 (worst since 1991)

• 1.5 to 1.6 billion in ‘vulnerable employment’

• ~456 workers in extreme poverty (below $1.25 per day).

• Young workers much more likely to be adversely affected.
OHP pays less attention to economic issues (cites through 2010)

<table>
<thead>
<tr>
<th></th>
<th>JOHP</th>
<th>JAP</th>
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<td>1295</td>
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<td>Support</td>
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<td>691</td>
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<td>Performance</td>
<td>65</td>
<td>2289</td>
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<td>Retention/Turnover</td>
<td>20</td>
<td>308</td>
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<td>Job Security/Precarious Employment</td>
<td>17</td>
<td>45</td>
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<td>Pay/Income/Compensation</td>
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<td>280</td>
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<tr>
<td>Poverty/Working Poor</td>
<td>9</td>
<td>16</td>
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</table>
Of course it’s getting better, right?
2012-2013 Citation counts

<table>
<thead>
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<td>Economic Stress/Financial Stress</td>
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</table>
Economic Stress and Occupational Health

THE GOVERNMENT’S NEW UNEMPLOYMENT STATISTICS ARE OUT.

CRUMPLE CRUMPLE

IT’S STILL A BAD TIME TO LOOK FOR A JOB. YEAH. I GOT THAT.
Economic stress: It’s about how much money you make, right?

MONEY CAN'T BUY HAPPINESS

BUT IT CAN BUY YOU A JETSKI. HAVE YOU EVER SEEN ANYONE SAD ON A JETSKI?
What makes economic stress complicated?

- Multiple dimensions
- Contextual features
- Temporal features
- Social/Relational features
Defining Economic Stress

“…aspects of economic life that are potential stressors for employees and their families and consists of both **objective** and **subjective components** reflecting the **employment and income dimensions** of the worker-earner role” (Probst, 2005 p. 268).
## Two Key Dimensions of Economic Stressors

<table>
<thead>
<tr>
<th>Objective Stressors</th>
<th>Employment Stressors</th>
<th>Financial Stressors</th>
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</thead>
<tbody>
<tr>
<td>Instability (Unemployment)</td>
<td></td>
<td>Deprivation (Financial)</td>
</tr>
<tr>
<td>Subjective Stressors</td>
<td>Uncertainty (Job Insecurity)</td>
<td>Stress (Financial)</td>
</tr>
</tbody>
</table>

(Voydanoff, 1987; 1990; Probst, 2004; Sinclair et al., 2010)
Financial Deprivation

- Inability to meet current financial needs
- Loss of income and financial resources

http://quarterlifeadvice.net/bills-vs-thrills-how-to-budget-effectively/
What Financial Measure? Direct or Indirect?

- **Direct measures**
  - Salary/Wages
  - Household income
  - Financial resources
  - Debt-to-asset ratios
  - Income rel. to cost of living

- **Indirect measures**
  - Family size
  - Adult dependents
What financial measure: Household or job income?

$r = .25, p < .05$
What Financial Measure: Primaries vs. Supplementers

Retail Workers in 2003 (N = 4,050)
# What Financial Measure?
## Federal Poverty Guidelines

<table>
<thead>
<tr>
<th>Household Size</th>
<th>100%</th>
<th>200%</th>
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<tbody>
<tr>
<td>1</td>
<td>$11,490</td>
<td>$22,980</td>
</tr>
<tr>
<td>2</td>
<td>$15,510</td>
<td>$31,020</td>
</tr>
<tr>
<td>3</td>
<td>$19,350</td>
<td>$39,060</td>
</tr>
<tr>
<td>4</td>
<td>$23,550</td>
<td>$47,100</td>
</tr>
<tr>
<td>5</td>
<td>$27,570</td>
<td>$55,140</td>
</tr>
<tr>
<td>6</td>
<td>$31,590</td>
<td>$63,180</td>
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<tr>
<td>7</td>
<td>$35,610</td>
<td>$71,220</td>
</tr>
<tr>
<td>8</td>
<td>$39,630</td>
<td>$79,260</td>
</tr>
<tr>
<td>Each additional person</td>
<td>$4,020</td>
<td>$8,040</td>
</tr>
</tbody>
</table>

*Continental 48 States; For AK & HI see: http://familiesusa.org/product/federal-poverty-guidelines*

- Used for eligibility in various programs
- No single method to calculate
- Supplemental Poverty Index (SPI) includes resources
Is $75K the threshold for well-being?

- Linear effects for life satisfaction beyond 75K.
- 75K threshold for daily mood, etc.
- Increased “pain” below 75K.

Kahneman & Deaton (2010, PNAS early edition)
Subjective Aspects of Money

"SociaLism never took root in America because the poor there see themselves not as an exploited proletariat but as temporarily embarrassed millionaires."

- John Steinbeck

http://www.temporarilyembarrassedmillionaires.org/
Financial Stress as perceived income adequacy (PIA)

• **Wants & Needs**
  – Primary Deprivation:
    • Necessities
  – Secondary Deprivation:
    • Desired non-necessities

• **Current & Future**
  – Present concerns
  – Expectations

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Wants</td>
<td></td>
<td></td>
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<tr>
<td>Needs</td>
<td></td>
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</table>
PIA Predicts Work-related Outcomes

(N=316; Chinese Manufacturing)

- PIA-Needs
- Financial Strain
- PIA-Wants

+ Life Satisfaction
- Task Performance
- OCB

Sears (2008)
### PIA Predicts Health Outcomes

*N = 141 Acute Care Nurses; \( ^t p < .10, \ ^* p < .05, \ ^{**} p < .01 \)

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Burnout</th>
<th>Physical Symptoms</th>
<th>Engagement</th>
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<tbody>
<tr>
<td>Fragility</td>
<td>.20*</td>
<td>.16(^t)</td>
<td>.19*</td>
<td>-.06</td>
</tr>
<tr>
<td>Job Income</td>
<td>-.09</td>
<td>.14(^t)</td>
<td>.08</td>
<td>-.07</td>
</tr>
<tr>
<td>Family Income</td>
<td>-.03</td>
<td>-.10</td>
<td>-.04</td>
<td>.03</td>
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<tr>
<td>PIA-Current</td>
<td>-.20*</td>
<td>-.21*</td>
<td>-.26**</td>
<td>.26*</td>
</tr>
<tr>
<td>PIA-Future</td>
<td>-.04</td>
<td>.09</td>
<td>.06</td>
<td>.00</td>
</tr>
<tr>
<td>Total R2</td>
<td>.13**</td>
<td>.18**</td>
<td>.19**</td>
<td>.09*</td>
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Perceived income adequacy may be (in part) a cognitive personality style

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<tr>
<td></td>
<td>Needs</td>
<td>Wants</td>
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<tr>
<td>1. Demographics</td>
<td>.01</td>
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<tr>
<td>2. Hardiness</td>
<td>.12**</td>
<td>.10**</td>
</tr>
<tr>
<td>3. Objective</td>
<td>.07**</td>
<td>.11**</td>
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Values shown are incremental $R^2$
*N = 285 College students*
Demographics: Gender, Age, Credit Hours, Hours Spend on School, Hours Spent Working
Objective: Income, Debt, % of own expenses, # kids as dependents

(Sinclair, Sears, Cheung, unpublished)
COR provides a theoretical framework

- **Resource loss**
  - Stronger than gain; caused by lost resources, threatened resources, failure to recover resources

- **Resource investment**
  - ...to maintain health, protect against loss, recover from loss, gain resources.

- **Resource spirals**
  - Those with more resources are less vulnerable to resource loss and more capable of orchestrating gain.

Resource Scarcity as a Mindset
Mullainathan & Shafir

- Efficiency but Exhaustion
  - Present not future focus
  - Failure to recognize opportunities
  - Harder to recover lost resources

Money

Bandwidth (attention)

Time
Propositions about resource interactions

- **Scarcity Juggling**
  - “You borrow from tomorrow, and tomorrow you have less time than you have today, and tomorrow becomes more costly. It’s a very costly loan.”

- **Fungible/Equifinal Resources**
Relativistic Effects

- **Hedonic Treadmill Theory**
  - Habituated emotional response to particular levels of a stimulus (e.g., resource)

- **Relative Deprivation Theory**
  - Assessments of resources relative to those of social referents

- **Future/Temporal Discounting**
  - Values shift to opportunities/challenges closer in time
Challenges & Opportunities
Challenge: Economic Research is multidisciplinary

- Financial Stress & Work
- Basic & Applied Psych
- Behavioral & Labor Economics
- Sociology
- Public Health
OHP Opportunity: Boundary Spanning Research

- Public Health
- Financial Stress & Work
- Sociology
- Behavioral & Labor Economics
- Basic & Applied Psych
Challenge: Financial Literacy

Average financial literacy score
By age group

*Represents number of financial literacy questions answered correctly out of 10 questions asked.

Data: Texas Tech University, University of Missouri at Columbia

Finke et al. (2011)
Opportunity: Building financial capability at work

• President’s Advisory Council on Financial Capability

  – To help keep America competitive and assist the American people in understanding and addressing financial matters, and thereby contribute to financial stability, it is the policy of the Federal Government to promote and enhance financial capability among the American people.

  – Financial capability is the capacity, based on knowledge, skills, and access, to manage financial resources effectively.

  – In order to develop this capacity, individuals must have appropriate access to and understanding of financial products, services, and concepts. Financial capability empowers individuals to make informed choices, avoid pitfalls, know where to go for help, and take other actions to improve their present and long-term financial well-being.
Challenge: Contextual Effects

Economic Context

Occupational Context

Social Policy Context

Financial Resources & Perceptions

Financial Reactions

OHP Outcomes
Opportunity: Multilevel Research

• Country level income & employment security  
  – (Debus et al., 2012)

• Future employment prospects  
  – (Jiang et al. 2013)

• Investment in active labor market programs  
  – (Stuckler et al., 2009)

• Community/neighborhood effects  
  – (Zajack, 2010; Kneis et al., 2007)
Challenge: Relating Subjective & Objective aspects of Money

- Individual Differences
- Wants & Needs
- Family History
- Temporal Issues
- Scarcity Mindsets
- Social Context

Economic Stress
Opportunity: Meaning of Money

• **Value importance** of money
  – I believe that the more money you have, the happier you are.

• **Personal involvement** with money
  – I make out a budget for my expenditures.

• **Time spent thinking** about financial affairs
  – I have explicit plans for how I can make more money.

• **Skill** at handling money
  – I never have checks that bounce.

• **Comfort in taking** financial risks
  – I would prefer to win big or lose big than to be conservative.

• **Knowledge** of financial affairs
  – I understand how banks make money on loans, mortgages, savings accounts, etc.

• **Source of power and status**
  – I use money to influence others.
OHP areas that might benefit from better/continued economic research

- Work-family
- Good & Bad behavior at work
- Engagement/Burnout
- Group Dynamics/Climate
- Retention/Retirement/etc.
- Decision making
Conclusions

• Increased salience of financial issues; limited attention in OHP.

• Poverty creates dynamic demands.

• Subjective aspects of income assessment.

• Financial issues require multidisciplinary, multifaceted, multilevel response.
Thanks! Any Questions?

WE DON'T WANT SOCIALISM, YOU ARROGANT KENYAN!