Employee Wellbeing: Connecting the Dots
with Highlights from the
Work, Family & Health Study

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Our Charge

- How can workplace change to improve the health and well-being of employees and their families, while also doing as well or better on key organizational outcomes?

- What do we learn by applying a work-life lens to that question?
And many, many others…

www.workfamilyhealthnetwork.org
Take-Away Messages

1. A healthy work environment includes employee latitude over when and where work is done and supervisor support for family and personal life.

2. These work conditions improve the health and well-being of employees and benefit family members too.

3. These organizational changes also bolster the “health” of the organization.
Sherwin – IT professional in Fortune 500 firm

“Super workaholic” manager

Director “trying to get blood from a rock”

“I didn’t even realize it, just went into the doctor because I was not feeling well and they ran an EKG and they did some tests and said ‘You had a heart attack yesterday.’ So they put stints in and did the other stuff and I took about 4 weeks off of work and came back…So I’m looking at things a lot differently in my life.”
Conceptual Model of Work → Health

- Work Environment
- Work-Life Conflicts & Strains
- Employee Health & Health-Promoting Behaviors
- Family Environment
- Family Well-Being
- Organizational “Health”
- Public Health
Work Environment and Health?

■ Demands
  o Work hours
  o Subjective pressure (hard, fast, too much)

■ Control
  o Able to decide how you do your work

■ Support
  o Recognized, valued for contributions
  o Connected to others
Work-Life Environment and Health?

■ Demands
  o Work hours
  o Subjective pressure (hard, fast, too much)
  o Family and personal obligations

■ Control
  o Able to decide how you do your work
  o Able to decide when you do your work (with coordination)
  o Able to decide where you do your work (when feasible)

■ Support
  o Contributions recognized, valued
  o Connected to others
  o Personal and family life recognized, supported (by manager)
STAR Targets

- **Demands**
  - Work hours
  - Subjective pressure (hard, fast, too much)
  - Family and personal obligations

- **Control**
  - Able to decide how you do your work
  - Able to decide when you do your work (with coordination)
  - Able to decide where you do your work (when feasible)

- **Support**
  - Contributions recognized, valued
  - Connected to others
  - Personal and family life recognized, supported (by manager)
STAR Initiative: A Different Approach

- **What?** Work groups reconsider when, where, how, and what work is done.

  Collective process vs. individual “accommodation”

- **Why?** Need to make work more effective, efficient, and sustainable for all employees.

  Broadly framed interests vs. family needs or women’s issue

Kossek et al 2014 *Organizational Dynamics*
Perlow & Kelly 2014 *Work & Occupations*
“Tool Kits” for implementing at [www.workfamilyhealthnetwork.org](http://www.workfamilyhealthnetwork.org)
STAR Initiative: A Different Approach

**How?**

**Manager training (4 hours):**
- Behaviors that demonstrate support for family & personal life → Tracking over 2 weeks
- Executive support for change, peer coaching

**Participatory workshops (8 hours):**
- Role plays & discussion about work time (hours, availability, schedules), work location, communicating effectively → Employee latitude, team coordination

Kossek et al 2014 *Organizational Dynamics*
Perlow & Kelly 2014 *Work & Occupations*
“Tool Kits” for implementing at [www.workfamilyhealthnetwork.org](http://www.workfamilyhealthnetwork.org)
Δ Work Environment
Δ Work-Life Conflicts & Strains
Δ Employee Health & Health-Promoting Behaviors
Δ Family Environment
Δ Family Well-Being
Δ Organizational “Health”
Δ Public Health

Δ Change Initiative (STAR)
Study Design: Group Randomized Trial in IT Workplace

Wave 1
- Baseline: Survey and Health Data Collection
  - Spouse Survey
  - Child Survey
  - Daily Diaries
- Workplace Change Introduced
- STAR delivered to work units randomized to treatment

Wave 2
- 6-month: Survey and Health Data Collection

Wave 3
- 12-month: Survey and Health Data Collection
  - Spouse Survey
  - Child Survey
  - Daily Diaries

Wave 4
- 18-month: Survey and Health Data Collection

Merger Announcement
Merger Implementation

Parallel experiment in 30 nursing homes…
Effects of STAR

- **Increased**
  - Control over work time
  - Supervisor support for personal and family life
  - Saying have “enough time” with family

- **Decreased**
  - Work-to-family conflict
  - Family-to-work conflict

- **No effect on work hours, intensity overall**
  - Parents’ work hours declined ~ 1 hr/week

Interviews: Work-Family Interface

- Chuck (team lead, production support): “I would miss a lot of my daughter’s school activities or whatever the case is [without STAR]. Horseback riding is one of them. I made all but one of her horseback riding classes last quarter. I pick her up at like 1:00 to 4:00 so right in the middle of the day. I would do that and later that evening if I needed to I would work a little bit or just work on Friday if I needed to catch up.”

- Hayward (developer): “I drive to my son’s appointment or drop off my youngest son to his day care and then I can pick up my oldest son from school so he doesn’t have to go to before and after school care. I can pick him up at 3:45 on most days …”

Recall: Moms & Dads in survey still average 45 hours per week
Interviews: Work-Family Interface

- Rusty: “Working from home has helped improve my relationship with my kids because I wasn’t grumpy when I got home from my long drive, you know. So it’s just huge. It did make a big difference.”

- Duncan: “I’ve got a chronic health condition, Crohn’s, that’s completely under control [now]. My stress level is way down. My family life is much better because being home right at 5 to be [available to the family]. Especially with the special needs kids, helping my wife with them and just being available [is important].”
Effects of STAR

- Decreased burnout, stress, psychological distress at 12 months, though *only* among respondents who started STAR before merger underway
STAR Impacts Women’s Stress, Psychological Distress More

Effects of STAR

- Decreased burnout, stress, psychological distress at 12 months, though only among respondents who started STAR before merger underway

- Modest increases in sleep at 12 months
  Olson et al. *Sleep Health* 2015
Sherwin (software development engineer): **Before the heart attack, I was totally stressed.** Working unbelievable hours all the time here and it took a terrible toll on me. From a year ago now [when STAR started], it’s a **hundred percent less stress** on me than where I was even a year ago…Being able to get the work done, being able to deal with the important things in life as they come up, emergencies with your kids or your mom or something else. **It’s priceless**, to have that off of your plate. I mean, I don’t even think people realize how much that way of life, compared to where we are now, [creates stress]. **I feel sad for people in other companies** that still work in that environment.
Interviews: STAR and sleep, exercise

- Sherwin: [Before STAR and the heart attack], I was working those longer hours and staying up ‘til midnight or 1 a.m. sometimes, and getting up and starting over again at 5. Sleep is huge and I won’t rob myself of sleep anymore because I truly need that 8 hours of sleep. And I saw that lack of sleep truly affects everything that you’re doing. You’re staying up late, you’re eating, other stuff as well. When I was doing those hours before, the last thing in my mind was to get up and work out…too tired.

- (Plus stories of biking, joining company gym for first time, treadmill or recumbent bike desks at home.)
Effects of STAR

- Increased parents’ time with adolescents over 12 months

Davis et al. *Pediatrics* 2015
Parents’ Time with Kids: Declines as Adolescents Age

![Graph showing the decline in average daily parent-child time together over 12 months, with a decrease from Baseline to 12-Months.]

- (3) UP, Fathers
- (4) UP, Mothers
STAR Effects on Parents’ Time with Kids

Average Daily Parent-Child Time Together (Minutes)

Baseline 12-Months

- (1) Intervention, Fathers
- (2) Intervention, Mothers
- (3) UP, Fathers
- (4) UP, Mothers
Effects of STAR

- Increased parents’ time with adolescents over 12 months
  Davis et al. *Pediatrics* 2015

- STAR protects adolescent sleep quality: Better sleep quality, more consistent duration for adolescents with parent in STAR
  McHale et al. *Journal of Adolescent Health* 2015
Summary of Experimental Findings in IT Workplace

Yes!  
Δ Work Environment

Δ Work-Life Conflicts & Strains

Δ Employee Health & Health-Promoting Behaviors

Δ Organizational “Health”

Δ Public Health

Δ Change Initiative (STAR)

Family Environment

Family Well-Being
Effects of STAR

- Positive ROI (financial benefits > costs if firm had paid full price for training + employee time + rented space)
  
  Barbosa et al. *Journal of Occ & Env’l Medicine* 2015

- Voluntary exits significantly lower for STAR employees (7.6% over ~3 years vs. 11.6%)

- Turnover intentions significantly lower for STAR at 12 months follow-up
  
  Moen et al. (under review)

See publications, press, Tool Kits at [www.workfamilyhealthnetwork.org](http://www.workfamilyhealthnetwork.org)
Challenges Remain

- IT organization pulled back from STAR after merger and new leadership team...
- Nursing home findings much more mixed.
  - Customization and implementation lessons (Kossek et al.)
  - Positive impact on employees’ safety behaviors and organizational citizenship (Hammer et al. 2015 *Journal of Applied Psychology*)
  - Decreased smoking (# cigarettes among smokers) (Hurtado et al.)
  - Supervisors’ support of employees’ personal and family lives → better resident care (Okechukwu et al.)
Take-Away Messages

1. A healthy work environment includes employee latitude over when and where work is done and supervisor support for family and personal life.  
   - Critical targets for work → health link.

2. These work conditions improve the health and well-being of employees and benefit family members too.

3. These organizational changes also bolster the “health” of the organization.
We Can Connect the Dots

Change Initiatives → Δ Work Environment → Δ Work-Life Conflicts & Strains → Δ Employee Health & Health-Promoting Behaviors → Δ Organizational “Health” → Δ Public Health

Yes!

Family Environment

Family Well-Being
Thank You

www.workfamilyhealthnetwork.org
STAR Increases Remote Work

STAR Effects on Working Remotely

N = 768 employees & managers, nested in 56 study groups
STAR Increases Remote Work for All
STAR Increases Voluntary Variable Schedules, No Change in Involuntary Variable Schedules
Voluntary Variable Schedules

Predicted Probability of Voluntary Variable Schedule

Months Since Baseline Survey

Women without Children

Men without Children

Women with Children

Men with Children

Usual Practice

STAR

* *
Sherwin: I get more, a lot more work done more efficiently, ah, the time that I spend working is truly focused on work that can be measured. I cut out a lot of meetings that I used to just sit through and they were worthless so... As I said, it seems like common sense but for years we worked in environments where there was so much red tape and 'you have to do this' and you just waste a lot of time when you can be more efficient without the red tape, so.....
Interviews: Stop Rewarding Hours/Facetime

- Interviewer: What perceptions did you have to change?
- Sherwin: Ah, the perceptions that you need to be in the office between this time and this time...and the longer you work, you must be a more dedicated employee...or people seeing you online later at night, those people must be working harder and they must be better employees. Well, no, that’s not necessarily the case, right? ... So your work can speak for itself without having to work long hours or I came in early or’ I did this.’ And not everybody can come in early, not everybody can stay late, they have other things in their life that have to be going on. So those perceptions to me were cut out. The BS, right. I mean, it allows you to be on a level playing field with everybody. The work that gets done here is what really should be judged, and how you get it done is really up to you.
Norma (database engineer): “It gives us more latitude or more control of our life, work life in particular. And it allows us to work when we need to work, or when we can work, and from where we can work from. So I just got back from Arizona. I worked there for two weeks. My mother-in-law was there [and she’s been having some knee problems]. She’s completely set up so I have my own little desk. My father-in-law passed away a year ago, so I thought ‘well, I’ll just take two weeks and just work from there.’ So I worked remote site and it was completely working.”
Aiden (developer): “[My manager and I] touch base weekly on what I’ve done in the last week and what I expect to be doing. That was more on an ad-hoc basis in the past. But it’s more structured [now]. I have been pleasantly surprised, I must admit, because I always perceived my manager as someone who valued time in the chair as much as anything, and I think I was misjudging to a certain extent. Or maybe he felt like he had to do that, and now he doesn’t feel like he has to do that anymore…he seems to embrace stuff very well, more than what I was anticipating.”
Kunwar (quality assurance manager): “I think [STAR] has made me more, it has **made me lighten up a bit** … It’s helped us become more aware of planning and organizing better rather than just having meetings at the last minute. **Just plan a little more. And then just be more respectful of other people’s problems.** I might have a situation at home where I’m able to start work really early in the morning but another person might not because they might have a little child that they have to drop off at school. **We’ve learned to be more flexible.** But for the most part it has as a manager for me taught me to lighten up.”
STAR’s Effects – Among Those who work 50+ Hours

- Increased
  - Control over work time
  - Supervisor support for personal, family life (p<.10)
  - Saying have “enough time” with family

- Decreased
  - Work-to-family conflict
  - Family-to-work conflict

- No effect on work hours, intensity

Schedule Control (Subgroups)

Intervention Effects for Schedule Control: by Subgroups

Study Group Level

STAR Effects on Schedule Control

- Overall
- Women with Child at Home
- Men with Child at Home
- Women no Child at Home
- Men no Child at Home
- Parents Only
- Adults Caregivers Only
- Sandwichers Only
- No Dependents
- Low Schedule Control
- Higher Schedule Control
- Low Sup. Support for Family
- Higher WFC
- Low Higher FWC
- <= 50 Work Hours
- > 50 Work Hours
Family-Supportive Supervisor Behaviors (Subgroups)

Intervention Effects for Sup. Support for Family: by Subgroups
Study Group Level

<table>
<thead>
<tr>
<th>STAR Effects on Supervisor Support for Family/Personal Life</th>
<th>Overall</th>
<th>Women with Child at Home</th>
<th>Men with Child at Home</th>
<th>Women no Child at Home</th>
<th>Men no Child at Home</th>
<th>Parents Only</th>
<th>Adult Caregiver Only</th>
<th>Sandwichers Only</th>
<th>No Dependents</th>
<th>Low Higher Schedule Control</th>
<th>Low Higher Sup. Support for Family</th>
<th>Low Higher WFC</th>
<th>Low Higher FWC</th>
<th>&gt;= 50 &lt; 50 Work Hours</th>
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Work-to-Family Conflict (Subgroups)

Intervention Effects for Work-to-Family Conflict: by Subgroups

Study Group Level

Overall

Women with Child at Home
Men with Child at Home
Women no Child at Home
Men no Child at Home
Parents Only
Adult Caregivers Only
No Dependents
Low Schedule Control
High Sup. Support for Family
Low Higher WFC
Low Higher FWC
Low Higher Work Hours

STAR Effects on Work-to-Family Conflict

-8 -6 -4 -2 0 2
Survey Overview

- Computer-Assisted Personal Interview (CAPI) at worksite, on work time
- Recruited to Work, Family & Health Study
  - No mention of STAR, different personnel
- Trained field interviews conducted ~60 minute survey, ~20 minute health assessment
- Incentives of up to $60 for all components
- Baseline response rate of 78% (N=1044)
- Analytic sample: 768 employees & managers in 56 study groups who responded to all 4 survey waves
Analysis (overview)

- Generalized linear mixed models on repeated measures, with random effects for the level-2 unit (study group) nested in condition.
- Member cohort analysis, pre- & post- data (Murray 1998)

\[ Y_{ij:k:l} = f(\beta_0 + \beta_1 C_i + \beta_2 T_j + \beta_3 T_j C_i + \beta_4 \text{RAND}_k + \gamma_0 G_{k:l} + \gamma_1 M_{i:k:l} + \gamma_2 \text{TG}_{jk:l} + \epsilon_{ij:k:l} ) \]

- Intent to Treat (ITT) analysis
  - Coded as STAR if randomized to intervention
  - 10% attended half or fewer of STAR sessions, 4% attended none
No STAR Effects on Work Hours or Psychological Job Demands

Usual Weekly Work Hours

Psychological Job Demands

![Graph showing usual weekly work hours and psychological job demands over months since baseline survey. The graph indicates no significant effects of STAR on work hours or psychological job demands.](image-url)
No Experimental Differences in **Work Hours** by STAR & Gender/Parental Status
STAR Increases Overall Schedule Control, but Decay Over Time

STAR Effects on Perceived Schedule Control

- **Predicted Schedule Control**

- **Months Since Baseline Survey**

- **Usual Practice**
  - Line style: Dashed
  - Color: Blue

- **STAR**
  - Line style: Solid
  - Color: Red

- **Significance Levels**:
  - *: Significant at the 0.05 level
  - +: Significant at the 0.10 level
STAR Increases **Control Over Doing Some Work at Home, with Little Decay**

**STAR Effects on Perceived Control Over Doing Some Work at Home**

Predicted Control

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<tr>
<th>Months Since Baseline Survey</th>
<th>Usual Practice</th>
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*** indicates statistical significance.