

# Executive Function – Using Brain Research to Improve Job Search Outcomes

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Applying research based concepts in our program and practice

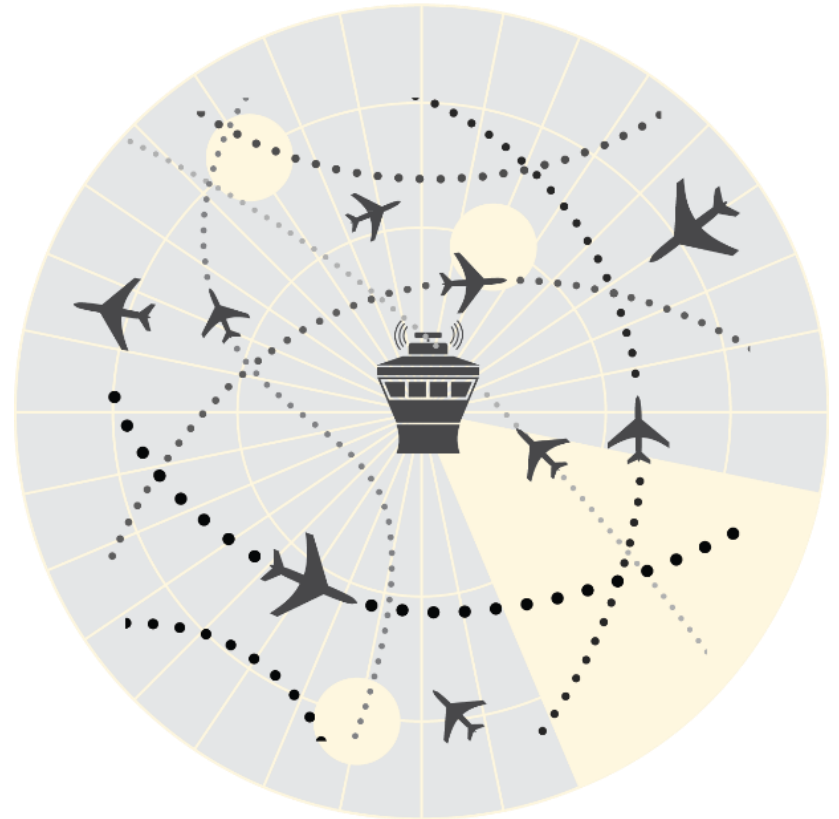
June 2014



# What is Executive Function? Air Traffic Controller of the Brain

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- The frontal lobe of the brain organizes other brain functions. It acts as the “executive” to the overall brain functioning.
- Executive function impacts people’s ability to succeed in the workforce, in educational attainment and in personal relationships.

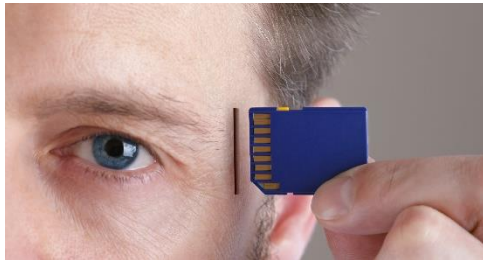


# Components of Executive Function

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- **Attention Shifting/Flexibility** - “capacity to nimbly switch gears and adjust to changed demands, priorities or perspectives.”



- **Working Memory** – “capacity to hold and manipulate information in our heads over short periods of time”



- **Inhibitory Control** – the ability to “filter our thoughts and impulses so we can resist temptations, distractions and habits and to pause and think before we act”

# Executive Function Skills and Capacities

- “Executive functions underlie **complex behaviors** such as making decisions to attain pre-determined goals, applying past learning to novel contexts, regulating behavior, solving novel problems, interacting in social environments, and orienting to the future”.  
(Carlock, 2011)

- **Goal** Directed Behaviors
  - **Organizational** Abilities
  - **Time Management** Activities
  - Strategic, Purposeful, Analytic and Critical **Thinking**
  - **Problem** Solving
  - **Decision** Making
- (<http://understandingexecutivefunctioning.blogspot.com/p/what-are-executive-functions.html>)

# Components of Executive Function



## Attention Shifting

*Many thanks to Stephen Chen, a researcher from University of California, San Francisco and now Wellesley College for permission to use these next few slides.*



# Components of Executive Function



**Attention Shifting**



**Working Memory**

# Components of Executive Function



**Attention Shifting**



**Working Memory**



**Inhibitory Control**

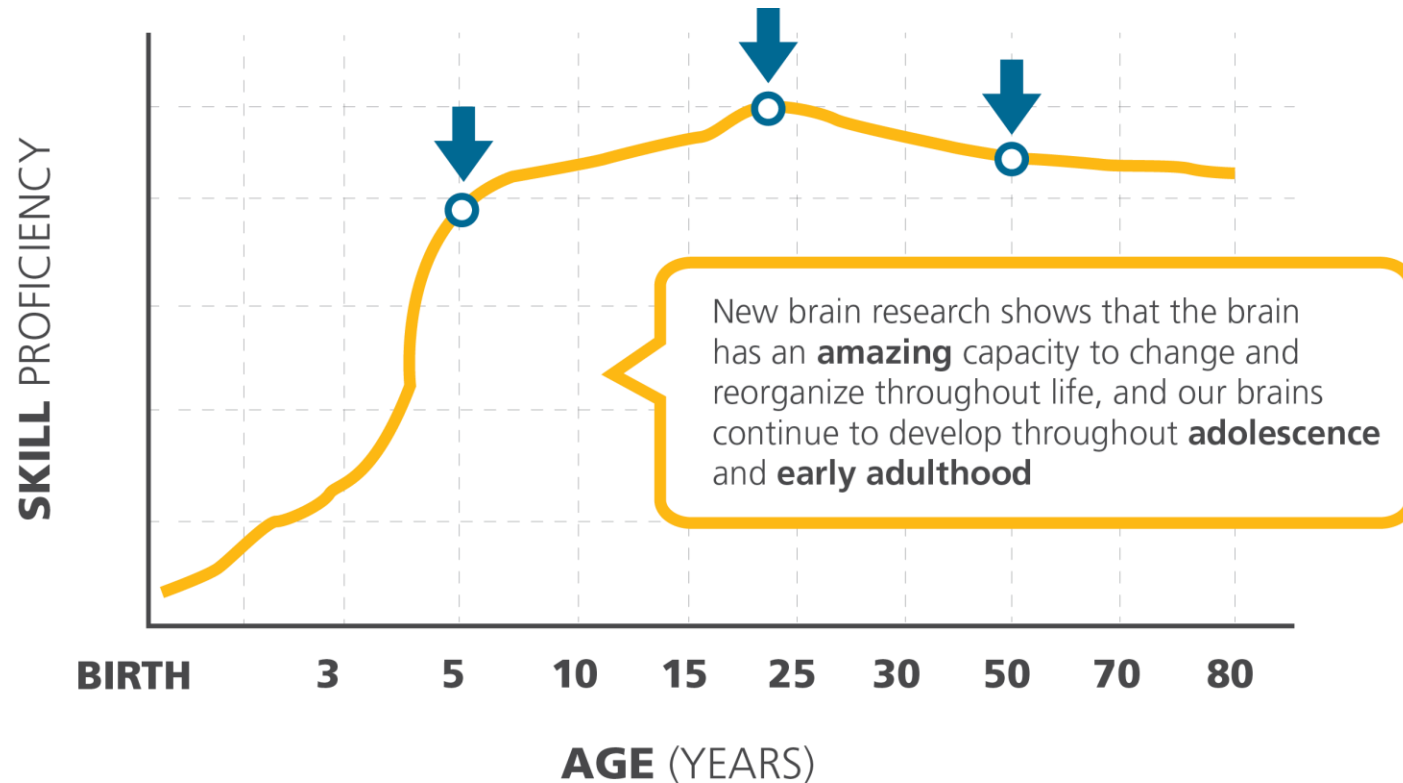






David Toay

# Brain Development: Executive Function



Weintraub, et al., (2011)  
Center on the Developing Child-Harvard University

# It's Not Too Late



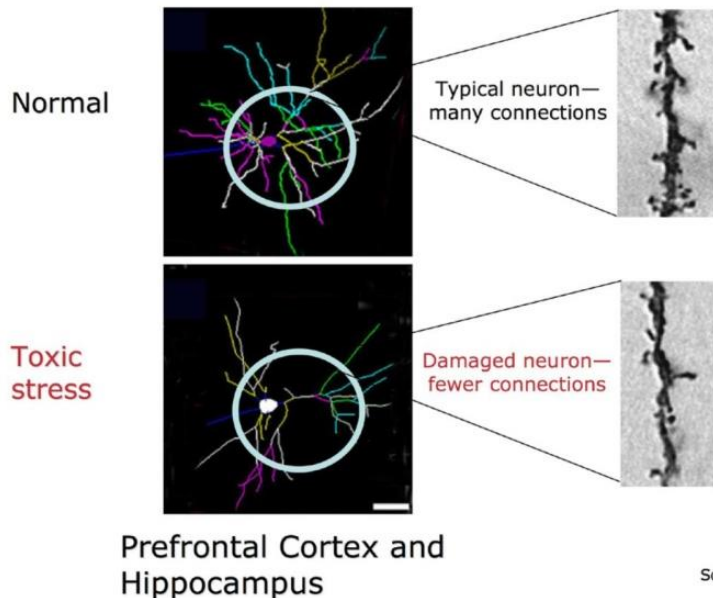


# Why Might EF be Impacted? The Science of Toxic Stress and Trauma



Center on the Developing Child  
HARVARD UNIVERSITY

## Persistent Stress Changes Brain Architecture



Sources: Radley et al. (2004)  
Bock et al. (2005)

Healthy brain development can be derailed by excessive or prolonged activation of stress response systems in the brain. This can impact:

- Behavior: How individuals understand and respond to the environment
- Development of successful relationships



# What does impacted EF look like in our programs?

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**DISRESPECTFUL**  
**DON'T CARE**



**DISTRACTED** APATHETIC

**UNMOTIVATED**

**STRESSED** IMPATIENT **ANGRY**

UNFOCUSED FORGETFUL **DISINTERESTED**

**SHORT-FUSED** WILLFUL NON-COMPLIANCE

**FAILURE TO PARTICIPATE**

INCOMPLETE PAPERWORK



# Applying the Science to Policy and Practice

## REDUCE COGNITIVE LOAD

- Streamline processes
- Share data/reduce application processes
- “Nudge” concepts



## INCREASE PARTICIPANT SKILLS AND CAPACITY

- Coaching
- Fostering Peer Networks and Support
- Aerobic Exercise



# San Diego By the Numbers

4,300

families monthly

20,000+

unique people served since 2010

1/3

of caseload is  
Refugee

6,000

individuals monthly

60,000

child care payments  
processed

3

Successful pilot  
or special  
programs

16

Languages  
spoken by clients

70%

of adults have been  
employed at one point

132

Employees

# Live Well! - Linking Health and Wellness with Job Search

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WTW  
Employment  
Services



Group Exercise  
and Health  
Awareness



Peer  
accountability  
& networking



**Better WtW  
Outcomes**



# Community Partnerships

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# Coaching + Peer Support + Exercise

## CLIENTS ENROLLED IN 12 WEEK PROGRAM



### Employment Related Coaching

Job search techniques, resumes and cover letter development, interview skills, job retention, etc.



### Healthy Living Workshops

Healthy eating, self-esteem, sleep, emotional health, family communication, depression, weight control, etc.



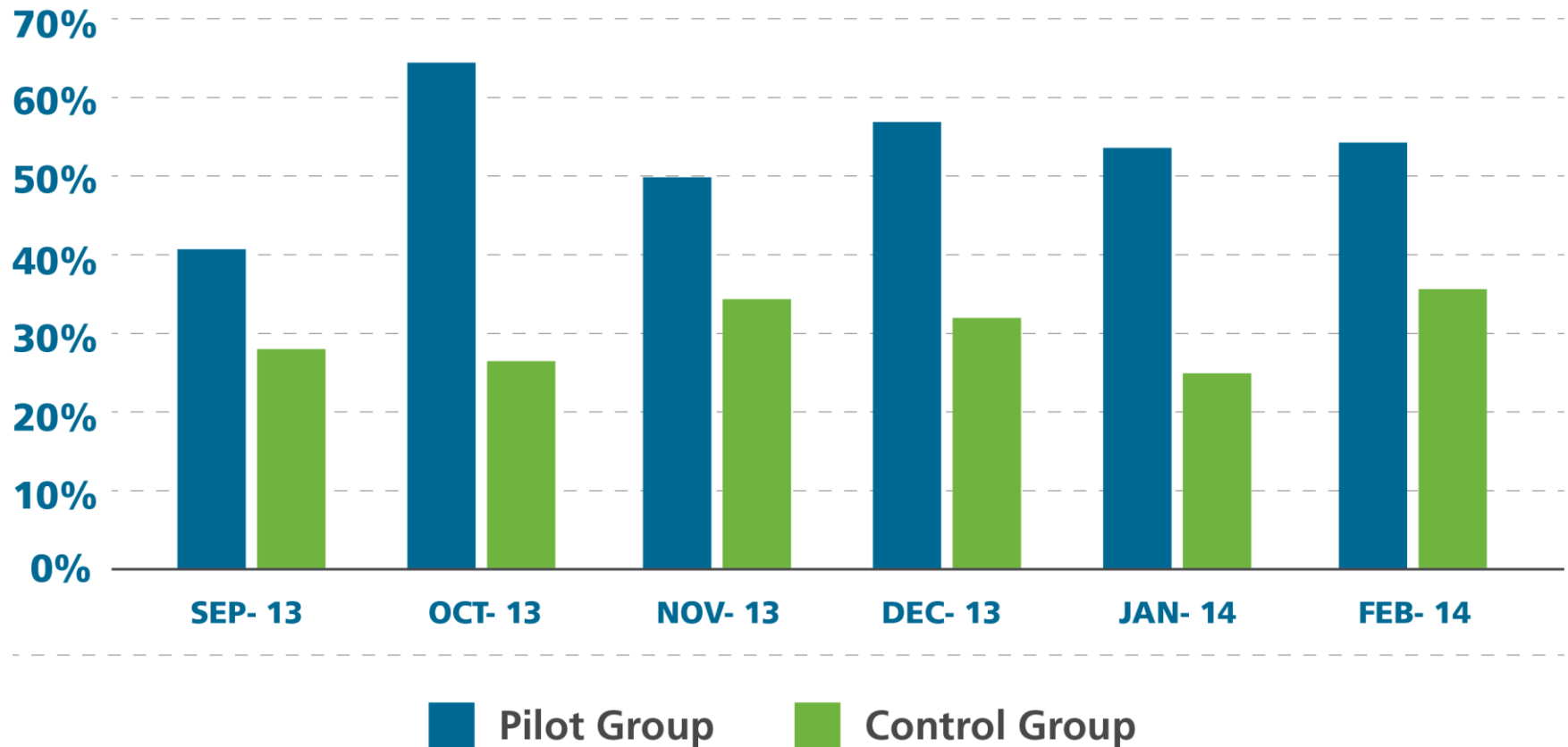
### Exercise

2 hours a week of guided fitness activities

Cohort meets 3 days a week for a total of 9 hours a week

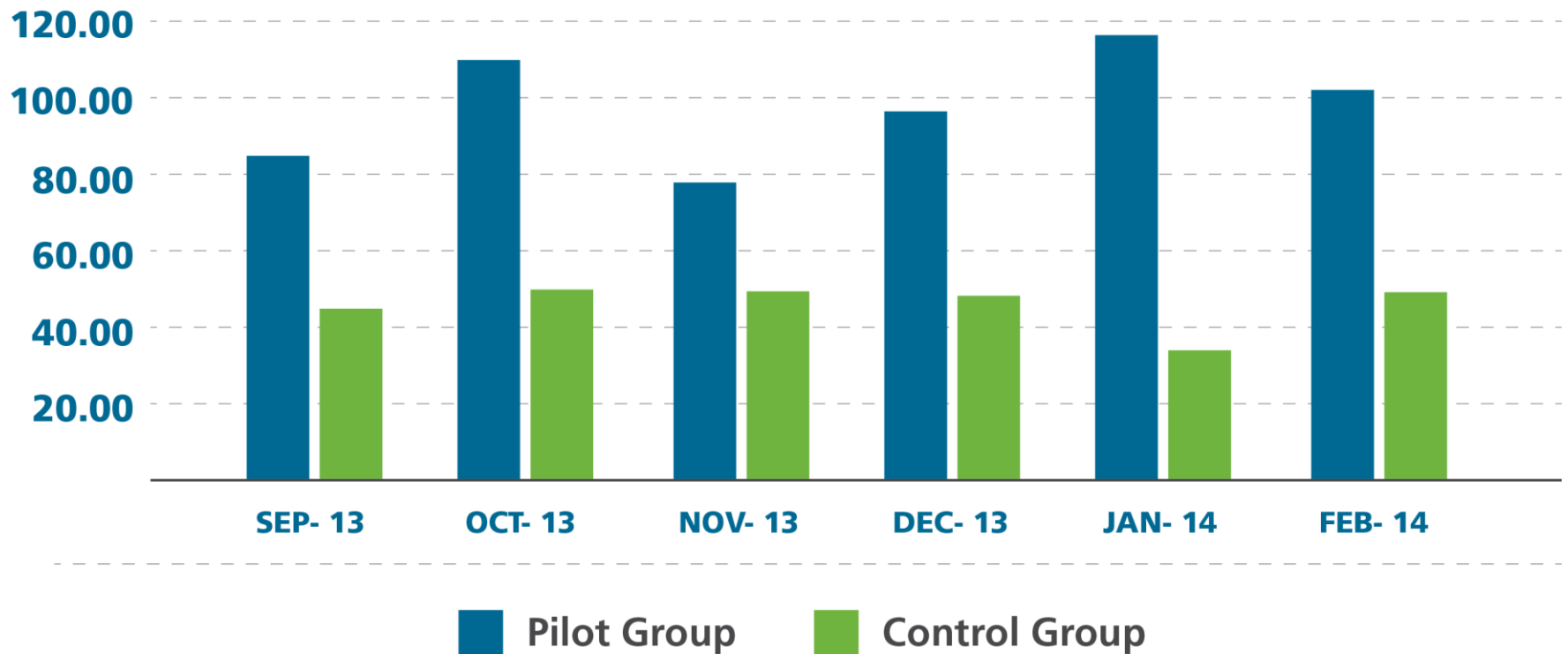
# LWSD Pilot – Participation

Percentage Meeting Participation



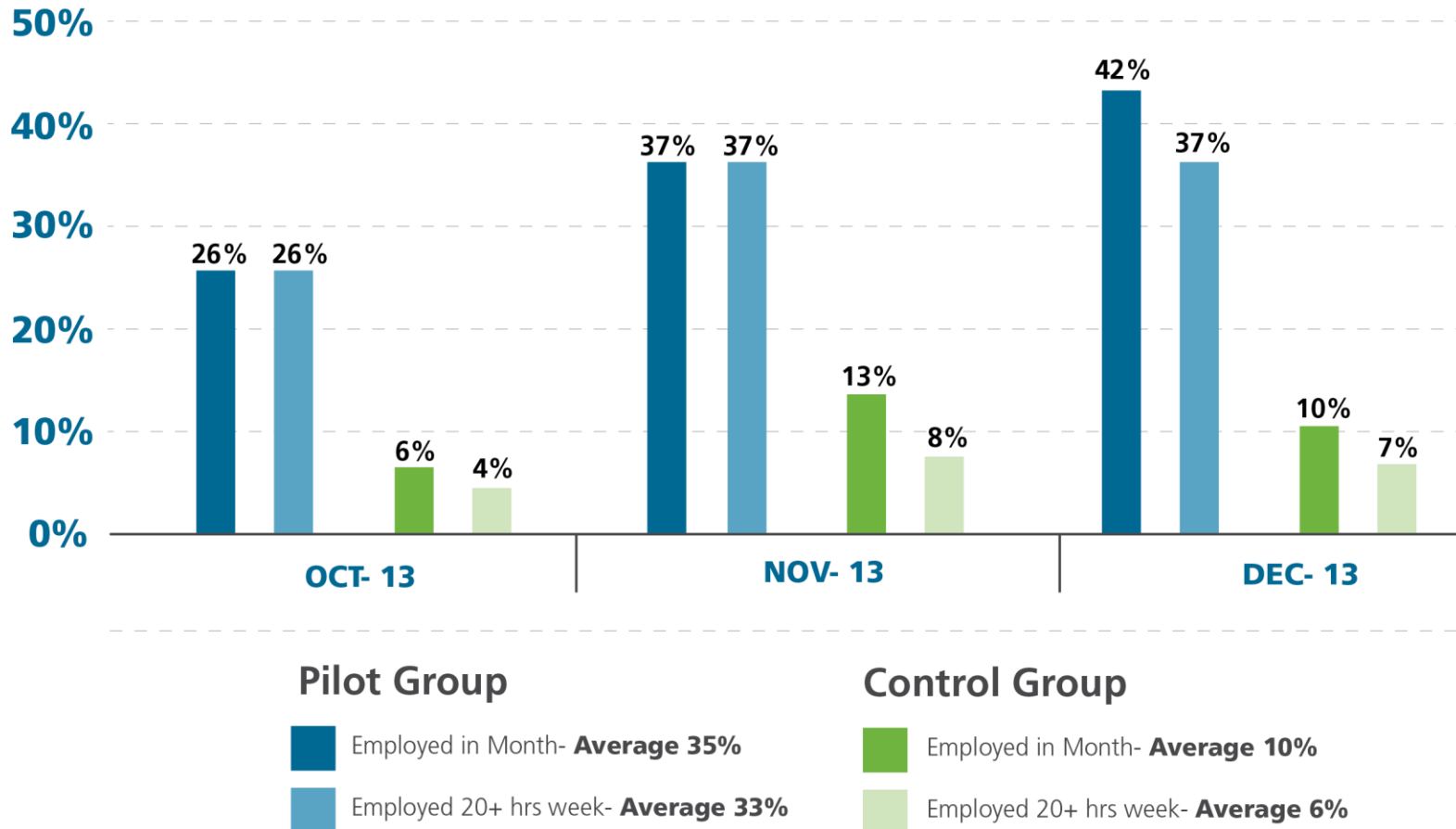
# LWSD Pilot – Participation Hours

Average Monthly Participation Hours





# Employment



The percentage of employed in the pilot group continues on trend in January and February.

# Initial Health Results: 10/13 – 12/14

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**Systolic BP**  
(-4.08 mmHg)



**Diastolic BP**  
(-2.54 mmHg)



**Waist Size**  
(-2.73 cm)



**Weight**  
(-7.16 lbs)



**BMI**  
(-1.46 kg/m<sup>2</sup>)

Our preliminary results of 13 out of the 19 participants to be evaluated suggest that the participants have experienced improvements in their health. Four months after baseline evaluations, on average participants have had decreases in both systolic (-4.08 mmHg) and diastolic blood pressure (-2.54 mmHg), reduction in their waist circumference (-2.73 cm), and decreases in weight (-7.16 lbs) and BMI (-1.46 kg/m<sup>2</sup>). While results are not significant given the small sample size they are in the expected direction (FSA 2014).

# Small Changes Matter, Too...



# Examining Participant Flow – Where Could EF Informed Practices Fit?







## Coaching **is**:



Active Listening



Powerful Questions



Individualized and  
Self Directed

## Coaching **is not**:



Passive and Distracted Listening



Authoritative Statements



Generic, Agency or  
Caseworker Directed

# You find what you are looking for...

**Coaching:** Clients are naturally creative resourceful and whole. We are here to help them reach their dreams



# Most Importantly

**You don't have to change your whole program (service delivery model) to see and impact... but...**

**You do need to support a culture shift towards measurement and coaching.**

# For more information please contact...

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