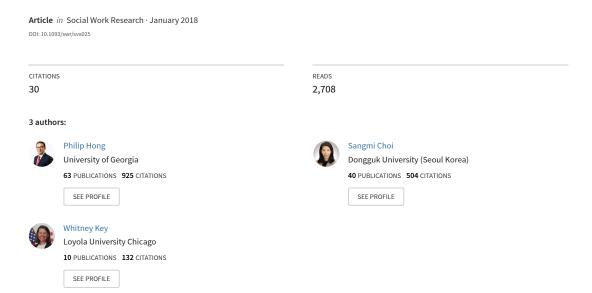
Psychological Self-Sufficiency: A Bottom-Up Theory of Change in Workforce Development



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Philip Young P. Hong, Sangmi Choi, and Whitney Key

The purpose of this study was, first, to validate the factor structure of psychological self-sufficiency (PSS) and, second, to investigate the extent to which PSS affects economic self-sufficiency (ESS) among low-income job seekers. PSS is conceptualized as a transformative process-driven psychological capital that comprises employment hope and perceived employment barriers. Using a sample of 802 low-income job seekers from two different local job training programs in Chicago, a multisample confirmatory factor analysis tested the factor structure of PSS, and a structural equation modeling analysis was conducted to test the hypothesized pathways to ESS, examining employment hope and perceived employment barriers individually and taking the difference score between the two. Findings revealed that PSS significantly contributes to ESS. Workforce development practitioners need to focus on clients' PSS when working with them to achieve ESS. Benchmarking PSS, providing adequate supportive services, and engaging employers are warranted as ways to build a system that generates successful employment and retention paths and outcomes.

KEY WORDS: low income; psychological self-sufficiency; theory of change; Transforming Impossible into Possible; workforce development

→ elf-sufficiency is regarded in policy, research, and practice primarily as economic selfsufficiency (ESS) (Hong, Choi, & Polanin, 2014; Hong, Hodge, & Choi, 2015). ESS is a unifying federal and state social policy goal that is promulgated by politicians and government officials, evaluated by policy analysts and social scientists, and benchmarked by local agency administrators and practitioners. However, there is no single definition when it comes to operationalizing ESS (Hawkins, 2005). The array of definitions ranges anywhere from having financial independence or economic security to having an annual income above the 200% federal poverty line, being able to pay 100% of necessary bills without any help from government or other people, achieving one year job retention, leaving poverty by way of steady employment, and attaining job stability (Cain, 1998; Cancian, 2001; Caputo, 1997; Fleischer, 2001; Johnson & Corcoran, 2003).

However, the general philosophical agreement in the literature is that ESS is a labor market outcome conditioned by adequate earned income that does not require any external financial support (Hong, Sheriff, & Naeger, 2009). In practice, this ESS outcome includes a must condition of being

independent from any government subsidies and financial assistance (Bratt & Keyes, 1997; Caputo, 1997; Mulroy & Lauber, 2004; Taylor & Barusch, 2004) and hopefully a desirable condition of gaining long-term employment above a certain wage rate (Cancian, 2001; Johnson & Corcoran, 2003). The must condition incurs government enforcement to end public assistance if one overstays his or her welcome beyond five years and exchanges welfare checks with earned income through employment—an active measure. The desirable condition on the other hand is left at the mercy of the market forces for matching the labor supply and demand and for one to sustain the job once attained—a passive measure

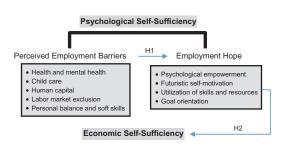
In this case, the ESS outcome on the aggregate can only be as successful as the maximum number of quality jobs available to absorb low-income job seekers in the labor market, thereby giving community-based workforce development agencies and programs little power vis-à-vis the market when it comes to controlling the level of success. Particularly when funders primarily emphasize the bottom line ESS outcome for evaluation, agencies and programs are forced to use short-term market-driven outcome measures—that is, welfare exit

and employment placement outcomes—as primary benchmarks of ESS (Harvey, Hong, & Kwaza, 2010). They face a catch-22 situation—fail if they do not report on the market-prescribed ESS benchmarks or face funding cuts when the market does not perform to bring about a good return on investment on these success metrics (Hong, 2013, 2016).

Therefore, by ignoring measures that capture what are key process variables inside the "black box" as referred to by Weigensberg et al. (2012) mediators of direct input and output within the agency practice context—agencies are disempowered to only rely on market performance to demonstrate success (Harvey et al., 2010; Hong, 2013). Comprehensive supportive services offered by agencies as input that tap into the process of empowering low-income job seekers to become job-ready are typically ignored and not included as intermediate measures in current practice of outcome-based evaluations (Hong, 2013; Hong, Choi, & Polanin, 2014; Hong, Hodge, & Choi, 2015). This signals a new era of market dependency in the face of a dissipating social contract between individuals and the state—government inaction to publicly tackle the deep-seated barriers that exacerbate welfare dependency by resorting to private market-based solutions (Hong & Crawley, 2015).

Social workers within workforce development agencies are in a position to lead a win-win solution to this self-sufficiency dilemma by recuperating the importance of mission-based work that provides added value to agency performance and sustainability. To complement ESS as an outcome measure, psychological self-sufficiency (PSS) represents the human-centered ecology of work perspective that focuses on the bottom-up process of "developing the workforce" from the perspective of the worker by honoring low-income job seekers' empowerment, strength, self-determination, motivation, and growth (Daugherty & Barber, 2001). PSS is the answer to the question of how one becomes economically self-sufficient—by arduously and meaningfully trotting the path, by engaging in a forward process, and by switching from perceived barriers to employment hope (Hong, 2013). Therefore, the purpose of this study is twofold. First, validate PSS as the process element of self-sufficiency, which was conceptualized and operationalized by Hong and his colleagues to include perceived employment barriers and employment hope (see Figure 1) (Hong, 2013; Hong,

Figure 1: Conceptual Model of Psychological Self-Sufficiency and Economic Self-Sufficiency



Choi, & Polanin, 2014; Hong, Polanin, Key, & Choi, 2014; Hong, Polanin, & Pigott, 2012). Second, examine the extent to which the PSS process contributes to ESS outcome. By achieving these aims, the study will help enhance workforce development program evaluation efforts by assessing client progress and documenting aggregate outcomes in programs.

LITERATURE REVIEW

Giving peripheral attention to the psychological dimension of self-sufficiency forms a gap in policy implementation (Hong & Crawley, 2015). Although lawmakers argued that psychological barriers were the root cause of welfare dependency, leading up to welfare reform, no deliberate policy investment has been made to reduce psychological barriers as part of a comprehensive action plan to promote self-sufficiency (Cooney, 2006; Harvey et al., 2010). In research, only a handful of authors have considered the multidimensionality of self-sufficiency by highlighting its psychological dimension—for example, personal and family sustainability as self-sufficiency in terms of achieving economic, physical, psychological, and social well-being (Hawkins, 2005); selfsufficiency as a personal process of acquiring money and resources, psychological power, and skills (Gowdy & Pearlmutter, 1994); and PSS as driven by employment hope anchoring on one's perceived employment barriers (Hong, 2013, 2016).

Research has found that welfare-to-work policies are most effective when comprehensively approached with supportive services that encourage job retention by focusing on both PSS and ESS (Kazis & Miller, 2001). Previous conceptualizations of the psychological dimension of self-sufficiency have focused on human agency—individual actions being determined

not only by structure, but also by one's decisions, free will, and choices being enacted onto the structure (Bandura, 2001, 2006). Orme-Johnson (1988) defined *PSS* as "the ability to maintain a confident, balanced, happy, productive frame of mind capable of providing for one's own needs without dependence on others" (p. 188). Mellor (2009) maintained that PSS is positive self-appraisals made about one's abilities, talents, skills, and efficacy to provide for oneself. PSS is philosophically supported by the capabilities approach (Nussbaum, 1988, 1992; Sen, 1993, 1999) and the social work practice model of a strengths-based approach (Saleebey, 2013) and empowerment (Gutiérrez, 1994, 1995).

Informed by positive psychology, such goaldirected motivational concepts as self-efficacy, positive selves, self-regulation, positive emotions, positive psychological capital, grit, growth mind-set, and so on have primarily focused on the positive drives (Hong, 2016). Using a grounded theory approach, however, qualitative findings from local focus groups of low-income job seekers suggested that PSS is "a dynamic process of overcoming perceived employment barriers along the goal-oriented path to individualized success and developing employment hope within the new realities of career goals" (Hong, 2013; Hong, Polanin, et al., 2014, p. 693). To maintain this balance between the negative and positive on the path to ESS, it is posited that one has to recognize employment barriers as such and be able to transform this to a motivational outlook and put effort toward realistic goals as one becomes an empowered worker (Hong, 2013). As illustrated in Figure 1, the bottom-up theory hypothesizes that PSS as a necessary condition positively affects ESS (Hong, 2013; Hong, Stokar, & Choi, 2016).

As such, this process of developing PSS can be theoretically supported by social cognitive career theory (SCCT) and the theory of mental contrasting. SCCT hypothesizes that taking into consideration the environmental obstacles to achieve targeted goals, self-efficacy and outcome expectations contribute positively to the development of vocational hope (Brown, Lamp, Telander, & Hacker, 2013). Mental contrasting combines the negative and positive assessments, which involves concurrently focusing on a positive outcome and the obstacles that block the path to the outcome (Duckworth, Grant, Loew, Oettingen, & Gollwitzer, 2011). By engaging in the process of contrasting the barrier-filled reality with the desired future outcome, one generates positive energy toward goals (Oettingen,

2000; Oettingen, Pak, & Schnetter, 2001). Making a strong association between future and reality signals the need to overcome the obstacles to attain the desired future.

Paralleling these theories, PSS comprises the negative perceived employment barriers and the positive employment hope (Hong, 2013). Perceiving employment barriers first as barriers is the starting point in this psychological process to transform the negative self-assessment into a positive one and channel this toward the desired future economic outcome. PSS is not a byproduct of ESS but a centerpiece to lasting economic success. Perceived employment barriers coincide with dwelling reflecting on the current reality that obstructs the path to one's desired future, and employment hope closely matches with indulging—imagining a desired future and mentally elaborating its benefits. Dwelling and indulging individually by themselves do not necessitate action toward goals, but mental contrasting generates energy toward goals.

Previous research has validated the two measures that comprise PSS—the Perceived Employment Barrier Scale (PEBS) (Hong, Polanin, et al., 2014; Hong, Song, Choi, & Park, 2015) and the Employment Hope Scale (EHS) (Hong, Choi, & Polanin, 2014; Hong et al., 2012; Hong, Song, Choi, & Park, 2016)—and has found them to be valid across multiple settings within the United States and South Korea. Perceived employment barriers are conceptually clustered into five dimensions—physical and mental health, labor market exclusion, child care, human capital, and soft skills—and were found to be negatively associated with employment hope (Hong, Polanin, et al., 2014; Hong, Song, Choi, & Park, 2015). Employment hope comprises psychological empowerment, futuristic self-motivation, utilization of skills and resources, and goal-orientation and was found to be positively associated with ESS (Hong, Choi, & Polanin, 2014; Hong, Song, Choi, & Park, 2016).

The gap in the literature that this study addresses is conceptualizing PSS as having not only the positive attribute, but also the negative internal factor—how perceived employment barriers and employment hope interact—and quantitatively validating the concept of PSS. The study also seeks to answer how the two key components of PSS contribute to ESS. Low PSS would make it difficult for an individual to navigate the labor market and find employment, which then would make it more difficult to achieve ESS. For example, someone with low PSS may find

it difficult to follow through with myriad tasks associated with identifying job leads, requesting information, updating a resume, and so on. In this regard, as depicted in Figure 1, it is hypothesized that perceived barriers negatively affect employment hope (hypothesis 1) and employment hope positively contributes to ESS (hypothesis 2). Also, it is hypothesized that employment hope mediates the relationship between perceived employment barriers and ESS (hypothesis 3).

METHOD

Sample and Data Collection

This study used two independent samples from local community-based agencies in Chicago. The first sample was collected from participants of a social services agency in the West Haven community of Chicago between October 2008 and March 2009 (sample 1). West Haven is a neighborhood facing the side effects of transformed high-rise public housing; the clients of this agency have received assistance in the areas of job preparation, life skills training, financial literacy, public benefits, and other support services. The second sample was collected from participants in a nationally recognized job training program in Chicago (sample 2) between June 2009 and August 2010. The agency provides services in the areas of intensive job readiness training, job search, placement, and yearlong retention services.

The size of each sample is similar (sample 1 = 390, sample 2 = 411), and an equivalent proportion of the participants were receiving Temporary Assistance for Needy Families benefits (sample 1 = 42.3%; sample 2 = 41.4%). However, other demographic characteristics of the two independent samples were slightly different. Sample 1 had a higher percentage of women (62.4%) than sample 2 (54.3%); the average age for sample 1 was lower (40.5) than that for sample 2 (42.09). Sample 1 was mostly African American (97.9%), with 24.9% having less than a high school education; sample 2 was a bit more diverse (87.2%), and 14.7% did not have a high school degree. Sample 1 was less employed (20.3%), with a lower percentage having more than 10 years of job training experience (41.7%) compared with sample 2's employment rate (28.4%) and job training experience (57.9%). In addition, there was a difference in the average individual income across the two samples (μ : sample 1 = \$14,595, sample 2 = \$8,325).

Measures

Hong et al. (2009) originally conceptualized the EHS with a 24-item six-factor structure derived from qualitative findings. This measure uses a Likerttype scale ranging from 0 = strongly disagree to10 = strongly agree. Each factor was constructed to have four items. An exploratory factor analysis (EFA) procedure decreased the 24-item six-factor model into a 14-item two-factor model; four items loaded on the first factor labeled psychological empowerment, and 10 items loaded on the second factor of goal-orientation pathways (Hong et al., 2012). This 14-item two-factor model preliminarily identified using an EFA was then validated as a 14-item fourfactor model using a confirmatory factor analysis (CFA) (Hong & Choi, 2013) and subsequently a multisample CFA (Hong, Choi, & Polanin, 2014). The four factors are (1) psychological empowerment (four items), (2) futuristic self-motivation (two items), (3) utilization of resources and skills (four items), and (4) goal-orientation (four items). EHS was cross-nationally revalidated using a national sample of Self-Sufficiency Program (SSP) participants in South Korea (Hong, Song, Choi, & Park, 2016).

PEBS was developed by Hong, Polanin, et al. (2014) as an empowerment-based measure capturing the level of barriers to securing a job as perceived by low-income job seekers. The study suggested a five-factor 20-item PEBS generally covering the range of individual, family, human capital, and structural factors—(1) physical and mental health (four items), (2) labor market exclusion (three items), (3) child care (three items), (4) human capital (five items), and (5) personal balance and soft skills (five items). Respondents were asked to rank each employment-related barrier item by circling a number on a five-point Likert-type scale ranging from 1 = not a barrier to 5 = strong barrier, according to how the item affects one's securing a job. PEBS was also cross-culturally validated in the South Korean context from a nationally representative sample of SSP participants (Hong, Song, Choi, & Park, 2015).

ESS was measured using the Women's Employment Network (WEN) Economic Self-Sufficiency Scale (Gowdy & Pearlmutter, 1993) to capture the multidimensionality of ESS. This scale measures the self-assessed level of economic and financial independence with four factors: (1) autonomy and self-determination, (2) financial security and responsibility, (3) family and self well-being, and (4) basic assets for community living.

Analysis Procedure

The analysis goals of this study were twofold: (1) to validate PSS as a two-factor—EHS and PEBS—measurement model across two independent samples and (2) to investigate the pathways among PEBS, EHS, and ESS.

To achieve the first goal, we conducted a CFA on PSS as a higher order latent measure that includes EHS and PEBS. We compared the proposed two-factor PSS with the one-factor model, following P. Kline's (1994) suggestion. While the onefactor baseline model represents a global hypothesis where all of the items form one factor, the proposed second model is composed of EHS and PEBS based on the theoretical framework. These two nested models are compared using appropriate model-fit statistics. Traditional chi-square model-fit statistics were not considered due to the large sample size (Meade, Johnson, & Braddy, 2008). Instead, several model-fit indices were used to reduce the plausibility of chance fit and to increase the robustness of the conclusions—that is, the root mean square error of approximation (RMSEA) (Steiger & Lind, 1980), the comparative fit index (CFI) (Bentler, 1990), the nonnormed fit index (NNFI) (Hu & Bentler, 1999), and Akaike information criterion (AIC) (Akaike, 1987). The values of CFI and NNFI above .90 are considered a good fit (Bentler & Bonett, 1980; R. B. Kline, 2011) and conservatively above .95 are an excellent fit (Hu & Bentler, 1999). RMSEA values up to .08 indicate an acceptable fit (R. B. Kline, 2011) and up to .06 a close fit (Hu & Bentler, 1999). Regarding the AIC, the model with the lowest value is preferred.

To achieve the second analysis goal after conducting construct validation of PSS across two samples, the authors proceeded to test the theoretical model using structural equation modeling (SEM). Following Anderson and Gerbing's (1988) procedures, a CFA was first conducted to assess the proposed dimensionality through the fit of the individual items to their respective scales. Next, the hypothesized model was analyzed using SEM to indicate the pathways from perceived employment barriers to ESS mediated by employment hope. AMOS (Version 7.0) (Arbuckle, 2006) was used to perform CFA, multigroup CFA, and SEM, using a maximum likelihood estimation method. Full-information maximum likelihood was used to handle missing data. Finally, we used the Sobel (1982) test to examine the indirect effect of perceived employment barriers on ESS.

RESULTS

Descriptive Statistics

The descriptive and bivariate statistics for the latent construct of PSS—EHS and PEBS—and ESS are presented in Table 1. The correlation between employment hope and perceived employment barriers was negative and the correlation between employment hope and ESS was positive as expected. All the variables were found to meet the assumptions for normality with the values of skewness between -1.261 and 1.68 and the values of skewness within -2 and +2 (Field, 2009; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006) and the values of kurtosis within -3 and +3 (Byrne, 2010) are considered to be normally distributed (see Table 1).

Because SEM requires that the multivariate normality assumption is met, the study proceeded to test the assumption using multivariate kurtosis (Mardia, 1970, 1974). As presented in Table 1, evidence of multivariate normality was found with multivariate kurtosis values (critical ratio [CR]) of 0.392 (0.707) in sample 1 and 1.032 (1.910) in sample 2. CR values of 1.96 or less indicate that multivariate kurtosis is not significant; therefore multivariate normality can be assumed.

Validation of the PSS Scale

This study examined whether one common model of PSS fits the data well across two samples using a CFA. Two alternative models were compared in each group: A one-factor model and a two-factor model. The one-factor model is a baseline model where all nine subfactors—four for EHS and five for PEBS—are loaded onto one general factor. The second one is a two-factor model in which four factors are loaded onto one factor (EHS) and the other five factors are loaded onto the other factor (PEBS).

Given the well-known problem of the chi-square test being sensitive to sample size (Anderson & Gerbing, 1988; Marsh & Grayson, 1990; Steenkamp & Baumgartner, 1998), model fit was evaluated using several fit indices to quantify the degree of fit to supplement the chi-square test. The model comparison is presented in Table 2. Based on the fit indices of CFI, NNFI, RMSEA, and AIC, the two-factor model reported significantly better fits than the baseline model across two samples, indicating the superiority of the two-factor model. The factor loadings for the PSS model are presented in Figure 2.

Variable	M (SD)	Range	Skewness	Kurtosis	-	7	m
EHS	7.63 (2.43)/8.79 (1.36)	0.00-10.00	-1.261/-1.688	0.949/2.808	(.968/.934)	131**	.146**
PEBS	2.30 (1.03)/1.92 (0.84)	1.00-5.00	0.775/1.400	-0.216/1.778	143**	(.939/.924)	.019
ESS	2.84 (1.02)/2.44 (0.97)	1.00-5.00	0.092/0.295	-0.705/-0.745	.285**	.046	(915/.914)
Multivariate kurtosis (critical ratio)				0.392 (0.707)/1.032 (1.910)			

PEBS = Perceived Employment Barrier Scale, ESS = economic self-sufficiency 10.

Theoretical Model from PSS to ESS

Given the verified structure of PSS across the two samples, the study tested the theoretical model with the path from PSS to ESS. In keeping with PSS representing the process of mental contrasting of employment barriers to hope, it was hypothesized that perceived employment barriers affect ESS mediated by employment hope.

Prior to testing the hypothesized pathways from perceived employment barriers to employment hope and from employment hope to ESS, the study tested the individual item reliability to assess the dimensionality of the proposed model. As a result of CFA, the measurement model fits the data reasonably well, $\chi^2(654, N=801)=2132.233$, p=.000, CFI = .935, NNFI = .926, RMSEA [95% confidence interval (CI)] = .053 [.051–.056].

Baring verified latent factor structure of the measurement model, the proposed model was tested using SEM. As reported in Table 3, all fit indices indicate that the hypothesized model has a good fit to the data, $\chi^2(655, N = 801) = 2141.453$, p = .000, CFI = .935, NNFI = .926, RMSEA [95% CI] = .053 [.051-.056]. Perceived employment barriers are negatively associated with EHS, supporting hypothesis 1; employment hope is positively related to ESS, supporting hypothesis 2 (see Figure 3). To estimate the indirect effect of perceived employment barriers (that is, the mediation effect of EHS), a Sobel test was used. The result indicates that perceived employment barriers have a negative indirect effect on ESS through employment hope, z = -3.54, p = .000. The total effect size from PEBS to ESS, which is also the indirect effect from perceived employment barriers to ESS, is -.019; the direct effect from perceived employment barriers to employment hope and from employment hope to ESS are -.125 and .154, respectively. The assessment of hypotheses is presented in Table 3.

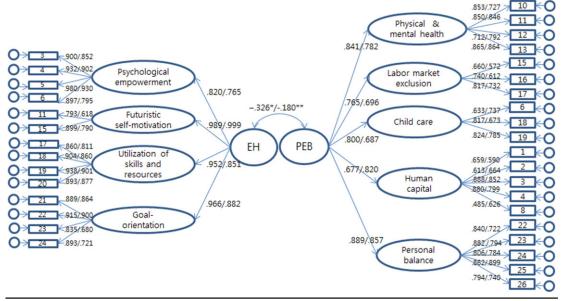
As another way to examine the mental contrasting process, PSS was operationalized as the difference in normalized scores between employment hope and perceived employment barriers. The proposed model was tested using SEM. As reported in Table 4, all fit indices indicate that the hypothesized model has a good fit to the data, $\chi^2(5, N=801)=19.274, p=.000, CFI=.992, NNFI=.977, RMSEA [95% CI]=.060 [.033-.089]. Validation of this hypothesis—that observed variable PSS is positively associated with the latent variable ESS—is presented in Table 4.$

Table 2:	The Result of C		oss Two Samples: Two r Baseline Model	o-Factor M	odel versu	ıs One-
n-4-	DCC NAI-I	27.10	D1165 (000/ 61)			

Data	PSS Model	χ²(df)	RMSEA (90% CI)	NNFI	CFI	AIC
Sample 1	One-factor	2,120.914(519)	.089 (.085093)	.833	.854	2,340.914
	Two-factor	1,376.640(518)	.065 (.061069)	.910	.922	1,598.640
Sample 2	One-factor	1,952.439(519)	.082 (.078086)	.809	.833	2,172.439
	Two-factor	1,315.242(518)	.061 (.057–.065)	.894	.907	1,537.242

Notes: CFA = confirmatory factor analysis, PSS = psychological self-sufficiency, RMSEA = root mean square error of approximation, CI = confidence interval, NNFI = non-normed fit index, CFI = comparative fit index, AIC = Akaike information criterion.

Figure 2: Standardized Factor Loadings for the Psychological Self-Sufficiency Model



Notes: EH = employment hope, PEB = perceived employment barriers.

DISCUSSION AND CONCLUSION

This study validated the factor structure of PSS—comprising employment hope and perceived employment barriers—and examined how PSS affects ESS among low-income job seekers. Results from CFA on PSS revealed that PSS is a valid measure across two independent samples. The hypothesized path from PSS to ESS using SEM was also confirmed with good fit indices, indicating that the theoretical model has a good fit with the data. Employment hope was found to be a full mediator between perceived employment barriers and ESS. Moreover, PSS measured as the difference score between employment

Table 3: The Result of Structural Equation Modeling on the Hypothesized Model (N = 801)

		ression ficients					
Hypotheses	В	β	SE	CR			
$PEBS \rightarrow EHS$ $EHS \rightarrow ESS$	450 .098	206*** .193***	.088 .020	-5.127 4.971			
$\chi^{2}(655) = 2,141.453 \ (p = .000), \text{CFI} = .935, \text{NNFI} = .926, $ RMSEA [95% CI] = .053 [.051056]							

Notes: CR = critical ratio, PEBS = Perceived Employment Barrier Scale, EHS = Employment Hope Scale, ESS = economic self-sufficiency, CFI = comparative fit index, NNFI = non-normed fit index, RMSEA = root mean square error of approximation, CI = confidence interval. ***p < .001.

Figure 3: Structural Equation Modeling Model of Psychological Self-Sufficiency and Economic Self-Sufficiency

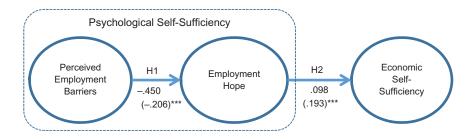


Table 4: The Result of SEM on the Hypothesized Model ($N=801$)						
	Regression	Coefficients				
Hypotheses	В	β	SE	CR		
PSS (EHS and PEBS) \rightarrow ESS	.046	.109**	.016	2.912		
$\chi^{2}(5) = 19.274 \ (p = .000), \text{ CFI} = .992, \text{ NNFI} = .977, \text{ RMSEA} [95\% \text{ CI}] = .060 \ [.033089]$						

Notes: SEM = structural equation modeling, CR = critical ratio, PSS = psychological self-sufficiency, EHS = Employment Hope Scale, PEBS = Perceived Employment Barrier Scale, ESS = economic self-sufficiency, CFI = comparative fit index, NNFI = non-normed fit index, RMSEA = root mean square error of approximation, CI = confidence interval. **p < .01.

hope and perceived employment barriers was also found to have a significant path to ESS.

Limitations of this study need mentioning. First, PSS primarily captures individual attitudes and behavioral attributes, but ESS is not affected only through change at the person level. In fact, employment and retention outcomes rest more on the structural conditions embedded within the low-wage labor market in various complex ways. Second, although this study examined perceived barriers as one overarching concept, perceived employment barriers include both individual and structural barriers. Barriers, as perceived by low-income job seekers, represent individual articulation as rational agents the degree to which personal and socioeconomic conditions are blocking their paths to achieving economic success in the labor market (Hong, Polanin, et al., 2014). Therefore, employment hope represents a self-assessment of individual identity, capacity, motivation, future possibilities, resources and skills, and goal orientation within the context of individual and structural barriers (Hong, Choi, & Polanin, 2014). The PSS process could then be better understood as activating employment hope against how limiting or enabling these barriers may be when moving toward ESS.

When it comes to the labor market processes and outcomes, employment hope could parallel the mediating effects of culture as described by Wilson (2010)—bringing together the effects of individual and structural barriers negatively affecting hope and hope negatively affecting ESS. PSS is a concept that denotes empowerment-based, goaloriented individual drive against all odds that one might face. It places the locus of control on individuals as much as possible against individual and structural barriers that limit their drive to reach the ESS outcome (Hong, Stokar, & Choi, 2016). However, PSS is not all about internally motivating oneself with hope within the confines of existing barriers. Rather, it is more about keeping hope alive despite the barriers and actively sustaining it greater than the negative barrier-filled assessment of reality in the labor market—as the name of a PSS-based intervention Transforming Impossible into Possible would suggest (Hong, 2016).

Therefore, future studies should examine how the individual and structural barriers dynamically affect employment hope in the PSS process. In the case where structural barriers may have strong presence in reality, they may forcefully limit the possibility of low-income job seekers overcoming their individual barriers. It is also possible that when barriers are less real and a person only perceives them to be higher due to social isolation, he or she might adjust the scores on these barriers downward to those that more adequately represent the reality

through personal reflection in job readiness training and individual coaching sessions.

Based on the findings, it is recommended that workforce development practitioners focus on PSS to achieve ESS when working with low-income job seekers at the individual level and with employers and policymakers at the structural level. Adhering to the newly emerging transformative social work practice framework (Schott & Weiss, 2015), PSS can provide an integrative multisystems approach to labor market supply-demand matching and quality job development (Hong, 2016). The former would involve some form of direct social work practice—casework or group work—to prepare individuals to become job ready. And the latter would entail using PSS as a framework to engage in organizational development within workforce development and job placement organizations and companies that recruit and hire from the low-wage labor market. Also, it would be vital through advocacy and policy entrepreneurship to incentivize employers and engage them in human-centered hiring, training, and retention support.

At the individual level, benchmarking PSS and providing adequate supportive services along successful employment and retention paths are warranted. Workforce development organizations should use PEB and EHS measures to track the humancentered developmental process in becoming job ready (Hong, 2013). As such, applying PSS as the main self-sufficiency process goal would require "developing relationships based on respect for clients" and evaluating individual progress on each goal (Bratt & Keyes, 1998, p. 807). Specifically, hope building and maintaining strategies would involve (a) an individualized employment and retention plan, (b) support services to remove barriers that block the drive and pathway, (c) reassessing and revising goals, and (d) an evaluation based on the short-term achievement of the process.

PSS as psychological capital is also relevant in terms of how it manifests as soft skills that employers tend to find as key in hiring decisions that is, employee motivation; self-presentation; and interpersonal skills such as cheerful demeanor, effective communication skills, and emotional selfregulation (Carnochan, Taylor, Pascual, & Austin, 2014). These inter- and intrapersonal abilities pertain to "personality, attitude and behavior" (Moss & Tilly, 2001) and "personality traits, goals, motivations, and preferences" (Heckman & Kautz,

2012, p. 451). Heckman and Kautz (2013) have argued that these attributes are character and that character is a noncognitive skill and not a trait. Character skills—personality traits, goals, motivations, and preferences—or soft skills are important predictors of success and sources of inequality in the labor market, in school, and in many other areas of economic and social life (Heckman & Kautz, 2012). They suggest that these skills can be changed by interventions that promise to improve manifest behaviors.

At the organizational level, workforce development agencies and employers can jointly invest in pre- and post-employment support for PSS as a precursor to win-win solutions—job placement and retention outcomes for the former and reduction of turnover rates and quality human resource management for the latter. With some creativity, community agencies can use curricula, counseling, coaching, and other support services to carve out spaces for their clients—their inventors of hopeto be partners in developing and implementing the most appropriate intervention. Liu, Huang, and Wang (2014), in their meta-analytic review, found that the job search intervention programs were largely more successful in facilitating employment for participants compared with those in the control group. Interventions that contained such components as job search skills, self-presentation, selfefficacy, proactivity, goal setting, and social support were found to be more successful than those that did not include them. Programs that coupled skill development with motivation enhancement were found to be more successful in finding employment for job seekers.

At the structural level, engaging employers as partners to work together on providing more comprehensive and holistic approaches to hiring and retention support would strengthen the labor market. It is crucial to involve employers in these programs because of the financial investment they put into their employees. By being involved, employers can not only understand the type of transformation their prospective employees have made to exemplify strong soft skills, but also see the dividends of motivation and performance—that is, lower turnover rate and higher productivity—that the employees have once on the job site. Incorporating a PSS framework into the workplace will yield a higher job retention rate. SWR

REFERENCES

- Akaike, H. (1987). Factor analysis and AIC. Psychometrika, *52*, 317–332.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103,
- Arbuckle, J. L. (2006). Amos (Version 7.0) [Computer software]. Chicago: SPSS.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. Annual Review of Psychology, 52, 1–26.
- Bandura, A. (2006). Toward a psychology of human agency. Perspectives on Psychological Science, 1, 164-180.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. Psychological Bulletin, 107, 238-246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88, 588-606.
- Bratt, R. G., & Keyes, L. C. (1997). New perspectives on selfsufficiency: Strategies of nonprofit housing organizations. Medford, MA: Tufts University, Department of Urban and Environmental Policy.
- Bratt, R. G., & Keyes, L. C. (1998). Challenges confronting nonprofit housing organizations' self-sufficiency pro-
- grams. Housing Policy Debate, 9, 795–824. Brown, S. D., Lamp, K., Telander, K. J., & Hacker, J. (2013). Career development as prevention: Toward a social cognitive model of vocational hope. In E. M. Vera (Ed.), The Oxford handbook of prevention in counseling psychology (pp. 374-392). Oxford, UK: Oxford University Press.
- Byrne, B. M. (2010). Structural equation modeling with AMOS (2nd ed.). London: Routledge.
- Cain, G. G. (1998). The state of the economy and the problem of poverty: Implications for the success or failure of welfare reform (Discussion Paper 1183-98). Madison: University of Wisconsin-Madison, Institute for Research on Poverty.
- Cancian, M. (2001). Rhetoric and reality of work-based welfare reform. Social Work, 46, 309-314.
- Caputo, R. (1997). Escaping poverty & becoming selfsufficient. Journal of Sociology and Social Welfare, 26(3),
- Carnochan, S., Taylor, S., Pascual, G., & Austin, M. (2014). Employer perspectives on the role of soft skills in subsidized employment relationships. Families in Society, 95, 187–194.
- Cooney, K. (2006). Mothers first, not work first: Listening to welfare clients in job training. Qualitative Social Work, 5, 217-235.
- Daugherty, R. H., & Barber, G. M. (2001). Self-sufficiency, ecology of work, and welfare reform. Social Service Review, 75, 662-675.
- Duckworth, A. L., Grant, H., Loew, B., Oettingen, G., & Gollwitzer, P. M. (2011). Self-regulation strategies improve self-discipline in adolescents: Benefits of mental contrasting and implementation intentions. Educational Psychology, 31, 17–26. Field, A. (2009). Discovering statistics using SPSS. London:
- Sage Publications
- Fleischer, W. (2001). Extending ladders: Findings from Annie E. Casey Foundation's Jobs Initiative. Baltimore: Annie E. Casey Foundation.
- Gowdy, E. A., & Pearlmutter, S. R. (1993). Economic selfsufficiency: It's not just money. Affilia, 8, 368–387.
- Gowdy, E. A., & Pearlmutter, S. R. (1994). Economic selfsufficiency is a road I'm on: The results of focus group research with low-income women. In L. V. Davis (Ed.), Building on women's strengths: A social work agenda for the twenty-first century (pp. 81–114). New York: Haworth Press.

- Gravetter, F. J., & Wallnau, L. B. (2014). Essentials of statistics for the behavioral sciences (8th ed.). Belmont, CA: Wadsworth.
- Gutiérrez, L. M. (1994). Beyond coping: An empowerment perspective on stressful life events. Journal of Sociology and Social Welfare, 21, 201–219.
- Gutiérrez, L. M. (1995). Understanding the empowerment process: Does consciousness make a difference? Social Work Research, 19, 229–237.
- Harvey, V., Hong, P.Y.P., & Kwaza, K. (2010). Shared reflections on transformative practice: From challenges to client empowerment in workforce development. Reflections: Narratives of Professional Helping, 16, 70–78.
- Hawkins, R. L. (2005). From self-sufficiency to personal and family sustainability: A new paradigm for social policy. Journal of Sociology and Social Welfare, 32, 77-92.
- Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. Labour Economics, 19, 451-464.
- Heckman, J. J., & Kautz, T. (2013). Fostering and measuring skills: Interventions that improve character and cognition (No. w19656). Cambridge, MA: National Bureau of Economic Research.
- Hong, P.Y.P. (2013). Toward a client-centered benchmark for self-sufficiency: Evaluating the 'process' of becoming job ready. Journal of Community Practice, 21, 356-378.
- Hong, P.Y.P. (2016). Transforming Impossible into Possible (TIP): A bottom-up practice in workforce development for low-income jobseekers. Environment and Social Psychology, 1, 93-104.
- Hong, P.Y.P., & Choi, S. (2013). The Employment Hope Scale: Measuring an empowerment pathway to employment success. International Journal of Psychology Research, 8, 173-189.
- Hong, P.Y.P., Choi, S., & Polanin, J. R. (2014). A multisample confirmatory factor analysis of the Short Employment Hope Scale (EHS-14). Journal of Social Service Research, 40, 339-352
- Hong, P.Y.P., & Crawley, B. (2015). Welfare dependency and poverty: A neoliberal rhetoric or evidence-based policy choice? In S. N. Haymes, M. Vidal de Haymes, & R. J. Miller (Eds.), Routledge handbook of poverty (pp. 131-142). New York: Routledge.
- Hong, P.Y.P., Hodge, D. R., & Choi, S. (2015). Spirituality, hope, and self-sufficiency among low-income job seekers. Social Work, 60, 155-164.
- Hong, P.Y.P., Polanin, J. R., Key, W., & Choi, S. (2014). Development of the Perceived Employment Barrier Scale (PEBS): Measuring psychological selfsufficiency. Journal of Community Psychology, 42, 689-706.
- Hong, P.Y.P., Polanin, J. R., & Pigott, T. D. (2012). Validation of the Employment Hope Scale: Measuring psychological self-sufficiency among low-income jobseekers. Research on Social Work Practice, 22, 323-332.
- Hong, P.Y.P., Sheriff, V. A., & Naeger, S. R. (2009). A bottom-up definition of self-sufficiency: Voices from low-income jobseekers. Qualitative Social Work, 8, 357-376.
- Hong, P.Y.P., Song, I. H., Choi, S., & Park, J. H. (2015). Comparison of perceived employment barriers among low-income jobseekers in the United States and South Korea. International Social Work. doi:10.1177/ 0020872815600509
- Hong, P.Y.P., Song, I. H., Choi, S., & Park, J. H. (2016). A cross-national validation of the Employment Hope Scale in the U.S. and South Korea. Social Work Research, 40, 41-51.
- Hong, P.Y.P., Stokar, H., & Choi, S. (2016). Psychological and economic self-sufficiency among low-income

- jobseekers with physical disability barriers. Environment and Social Psychology, 1, 63–73.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6, 1–55.
- Johnson, R. C., & Corcoran, M. E. (2003). The road to economic self-sufficiency: Job quality and job transition patterns after welfare reform. Journal of Policy Analysis and Management, 22, 615–639.
- Kazis, R., & Miller, M. S. (Eds.). (2001). Low-wage workers in the new economy. Washington, DC: Urban Institute.
- Kline, P. (1994). An easy guide to factor analysis. New York: Routledge.
- Kline, R. B. (2011). Principles and practice of structural equation modeling (3rd ed.). New York: Guilford Press.
- Liu, S., Huang, J. L., & Wang, M. (2014). Effectiveness of job search interventions: A meta-analytic review. Psychological Bulletin, 140, 1009-1041.
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. Biometrika, 57, 519-530.
- Mardia, K. V. (1974). Applications of some measures of multivariate skewness and kurtosis in testing normality and robustness studies. Sankhyā, Series B, 35, 115-128.
- Marsh, H. W., & Grayson, D. (1990). Public/Catholic differences in the high school and beyond data: A multigroup structural equation modeling approach to testing mean differences. Journal of Educational Statistics, *15*, 199–235.
- Meade, A. W., Johnson, E. C., & Braddy, P. W. (2008). Power and sensitivity of alternative fit indices in tests of measurement invariance. Journal of Applied Psychology, 93, 568-592.
- Mellor, S. (2009). Self-evaluation and union interest: The empirical relevance of a mediated model. Journal of Occupational and Organizational Psychology, 82, 369-390
- Moss, P. I., & Tilly, C. (2001). Stories employers tell: Race, skill, and hiring in America. New York: Russell Sage Foundation.
- Mulroy, E. A., & Lauber, H. (2004). A user-friendly approach to program evaluation and effective community interventions for families at risk of homelessness. Social Work, 49, 573-586.
- Nussbaum, M. (1988). Nature, functioning and capability: Aristotle on political distribution. Oxford Studies in Ancient Philosophy, 6, 145-184.
- Nussbaum, M. (1992). Human functioning and social justice: In defense of Aristotelian essentialism. Political Theory, 20, 202-246.
- Oettingen, G. (2000). Expectancy effects on behavior depend on self-regulatory thought. Social Cognition, 18, 101-129.
- Oettingen, G., Pak, H., & Schnetter, K. (2001). Selfregulation of goal-setting: Turning free fantasies about the future into binding goals. Journal of Personality and Social Psychology, 80, 736–753.
- Orme-Johnson, D. W. (1988). The cosmic psyche as the unified source of creation. Modern Science and Vedic Science, 2, 165-221.
- Saleebey, D. (2013). The strengths perspective in social work practice (6th ed.). Upper Saddle River, NJ: Pearson.
- Schott, E. M., & Weiss, E. L. (Eds.). (2015). Transformative social work practice. Thousand Oaks, CA: Sage Publications.
- Sen, A. (1993). Capability and well-being. In M. Nussbaum & A. Sen (Eds.), The quality of life (pp. 30–53). Oxford: Clarendon Press.
- Sen, A. (1999). Development as freedom. New York: Knopf.

- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. Sociological Methodology, 13, 290-312.
- Steenkamp, J.E.M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. Journal of Consumer Research, 25, 78-107.
- Steiger, J. H., & Lind, J. C. (1980, May). Statistically based tests for the number of common factors. Handout distributed at the annual meeting of the Psychometric Society, Iowa City.
- Taylor, M. J., & Barusch, A. S. (2004). Personal, family, and multiple barriers of long-term welfare recipients. Social Work, 49, 175-183.
- Trochim, W., & Donnelly, J. (2006). The research knowledge methods base (3rd ed.). Cincinnati: Atomic Dog.
- Weigensberg, E. C., Schlecht, C., Laken, F., Goerge, R., Stagner, M., Ballard, P., & DeCoursey, J. (2012). Inside the black box: What makes workforce development programs successful? Chicago: Chapin Hall Center for Children at the University of Chicago.
- Wilson, W. J. (2010). Why both social structure and culture matter in a holistic analysis of inner-city poverty. Annals of the American Academy of Political and Social Science, 629, 200-219.

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