

Independence Project

Sixth Interim Report
for period ending 12/31/23

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Executive Summary

This report is the sixth report on Independence Project, the last year of the six-year contract with Arnold Ventures. This report summarizes the findings for all data analyses completed as of 12/31/23, including the main analyses for the three-year outcomes, as previously reported in last year's fifth interim report. During 2023 we produced two additional peer-reviewed journal articles (Al-Abdulmunem et al., 2023; Bond et al., 2023) and drafted two further manuscripts nearing completion, which we will submit to peer-reviewed scientific journals. To date, Independence Project has resulted in five peer-reviewed journal articles, all of which have been published open access, as required by the contract with Arnold Ventures (Al-Abdulmunem et al., 2023; Bond, Al-Abdulmunem, Drake, et al., 2022; Bond et al., 2023; Bond, Al-Abdulmunem, Ressler, Drake, Davis, et al., 2022; Bond, Al-Abdulmunem, Ressler, Drake, & Gade, 2022).

Independence Project involved a randomized controlled trial comparing an intensive employment model (*National Career Coach Program [NCCP]*) to standard community employment services (*Local Community Resources [LCR]*) over a three-year follow-up period. Study participants were unemployed veterans with service-connected disabilities recently separated from active duty. The primary outcome domains were paid employment and disability ratings, as determined by the Veterans Benefits Administration (VBA). Secondary outcomes included life satisfaction, depression, mental and physical health, financial security, and substance use.

Data collection for this project was completed as of 3/4/22, but we have continued to examine further questions related to the overall project goals using data collected for Independence Project. This executive summary adheres to the format of milestones as prescribed in the reporting requirements. In a supplementary report we describe progress on secondary analyses.

A. Basic Descriptive Data on Study Sample and Follow-Up Outcomes

Study Sample

The study sample consisted of 229 participants, 115 randomized to NCCP and 114 to LCR. The two groups were similar on baseline characteristics. The mean age of the sample was 30.3; 80% were men; 85% had some college or other postsecondary education; 46% were White, 36% were Black, and 19% were of Latinx ethnicity.

A total of 208 participants (105 NCCP participants and 103 LCR participants) completed at least one follow-up interview and constituted the intent-to-treat sample for the study. We excluded the 21 early dropouts from the outcome analyses, because their outcomes were unknown. We conducted separate analyses for the one-year, two-year, and three-year employment outcomes for the intent-to-treat sample and standardized health and well-being measures for the interview sample.

One-Year Outcomes

At one-year follow-up, NCCP participants were significantly more likely to work, had significantly greater earnings, and reported significantly greater improvements in physical and mental health compared to LCR participants. Both groups increased in VBA disability ratings over 12 months, with no difference between groups.

Two-Year Outcomes

Employment. At two-year follow-up, NCCP participants continued to have significantly better employment outcomes than LCR participants. NCCP participants averaged \$2,568 in monthly earnings, compared to \$1,865 for LCR participants, a significant difference of \$703 per month, or \$16,872 more earnings per participant during the two-year follow-up. Significantly more NCCP participants worked in paid employment (95% vs. 83%). Employment outcomes significantly improved between Year 1 and Year 2.

Change in health and well-being. At two-year follow-up, NCCP participants reported significantly greater improvement in both physical and mental health than LCR participants, who reported a worsening of health on both measures. Both groups reported a significant improvement in financial well-being. Both groups showed dramatic reduction in opioid use (29% reduction for NCCP and 35% for LCR). The NCCP group also reported a significant reduction in the percentage who used tobacco and in the number of alcohol drinks per week.

Three-Year Outcomes

Employment. At three-year follow-up, NCCP participants continued to have significantly better employment outcomes than LCR participants. Over the three-year period, 102 (97.1%) of NCCP participants versus 89 (86.4%) of LCR participants held a paid job, a statistically significant difference of 10.7%. In the intent-to-treat sample, NCCP participants averaged \$2,875 in monthly earnings, compared to \$2,175 for LCR participants, a significant difference of \$700 more earning per month during the three-year follow-up. Within the completer sample (N=43), the NCCP group averaged more earnings over the 3-year period than the LCR group (\$101,985 versus \$87,100), but this difference was not statistically different.

Change in health and well-being. At three-year follow-up, we found no significant changes between baseline and follow-up for either group on any of the health and well-being measures in the interview sample (N=43), nor did the two groups differ on changes over time in these measures. We also found no differences over time or between groups in substance use with a single exception: NCCP participants reported significant reduction in prescribed opioids.

B. Attrition (and reasons why insofar as can be identified)

We obtained information about attrition from participants in follow-up interviews (based on questions about use of and satisfaction with services) and data collected by Hire Heroes USA coaches, who recorded provision of NCCP services and resources. During follow-up, most NCCP participants took full advantage of the four program components: 68% attended the in-person training, 98% made contact with their career coach, 72% used the human capital fund, and 78% of eligible participants received wage bonuses.

Most NCCP participants were in contact with the NCCP in both the first and second year after enrollment (92% and 90%, respectively of those interviewed). By the third year, however, only 35% of those interviewed were still in contact with the NCCP. Satisfaction with NCCP services exceeded 95% in all three years. The two most common reasons for discontinuing participation in the NCCP program were that participants who gained employment decided that they longer needed NCCP services and that participants were no longer eligible for cash payments from the Human Capital Fund or the earnings bonus.

By contrast to NCCP, only 48% LCR participants had contact with any of the recommended local community resources in the first year after enrollment, declining to 18% in the second year, and 12% in the third year, according to participant interviews. During the first four months after enrollment, the most frequently contacted agency was the American Job Center

(34% of LCR participants), followed by Department of Veterans Affairs (VA) vocational rehabilitation services (20%) and the state vocational rehabilitation agency (13%). The most common reasons LCR participants gave for discontinuing were that the program was not responsive to their requests or that the program was not helping them gain employment.

C. Distribution Of Disability Ratings

We obtained initial and follow-up disability ratings from 176 (85%) participants – 96 (91%) NCCP and 80 (78%) LCR participants. The two groups did not differ in disability ratings either initially or at follow-up. Disability ratings increased significantly from initial ratings to follow-up within both groups. The mean initial disability rating was 73%, increasing significantly to 80% by the final follow-up.

D. Accessing the Wage Bonus in the National Career Coach Program

A total of 61 (78%) of 78 eligible NCCP participants received wage bonuses. During the project period, the group receiving bonuses averaged a cumulative bonus of \$8,402.

E. Percentage Of Participants Who Completed Interviews

We randomized 229 participants to the study over a 13-month period in 2018-2019, conducting follow-up interviews every 4 months for three years after baseline interviews. We completed data collection in March 2022. The intent-to-treat sample consisted of 208 (91%) participants who completed at least one follow-up interview. The number and percentage of annual follow-up interviews were: 180 (87%) of participants at one year, 119 (57%) at two years, and 43 (21%) at three years. Interview completion rates were 9% to 16% higher for the NCCP group than the LCR group up until the third year when the completion rates were similarly low for both groups (22% for NCCP and 19% for LCR).

Summary

This study's findings suggest that the National Career Coach Program is effective in increasing employment earnings and improving physical and mental health in veterans with significant mental health conditions over a two-year period after program enrollment. Low interview completion rates during the third year follow-up period suggest caution in drawing conclusions from this time period. The program had no measurable impact on disability ratings, which increased by 7% in both groups during follow-up. Participants offered the National Career Coach Program used all four components of the program, and most participants were satisfied by the help they received. While findings from this study are encouraging, replications are needed to determine the generalizability of these findings.

Sixth Interim Report of Independence Project: Supplemental Findings Overview

In previous interim reports we have included detailed findings addressing the two primary study hypotheses, that the NCCP participants would have significantly better employment outcomes and significantly less increase in VBA disability ratings than LCR participants. We provided detailed findings in last year's interim report and in prior publications (Bond, Al-Abdulmunem, Drake, et al., 2022; Bond, Al-Abdulmunem, Ressler, Drake, Davis, et al., 2022; Bond, Al-Abdulmunem, Ressler, Drake, & Gade, 2022) and do not repeat these detailed findings here. In this section we summarize progress on spin-off projects over the past year and plans for the current year.

As outlined in last year's fifth interim report, we identified six secondary subprojects using the Independence Project data. Of these six planned projects, we have completed one, are nearing completion on two more, and plan to complete two others in 2024. We have discontinued one of the six planned projects:

- (1) Disruptions caused by COVID?** As planned, we completed a substudy examining the impact of the COVID pandemic on the mental health and well-being of Independence Project participants. We completed this report and it is now published (Bond et al., 2023). To summarize the findings:

The COVID pandemic led to a sharp increase in psychological distress in the general U.S. population, as well as among U.S. veterans. This prospective observational study examined changes in symptoms of depression in a sample of 109 young veterans with service-connected disabilities who had recently transitioned from the military. A standardized self-reported depression scale was used to examine changes in rates of moderate depression from pre-pandemic (2018-2019) to during the pandemic (2020-2021). Pre-pandemic, 33% of the sample screened positive for moderate depression, an elevated rate compared to a national veteran survey. During the pandemic, the rate of moderate depression declined slightly to 28%, contrary to trends in the general population. We concluded that the high rates of pre-existing depressive symptoms in the sample may explain the absence of a measurable impact of the pandemic on depressive symptoms.

- (2) Critical ingredients of National Career Coach Program.** The main findings from Independence Project indicate that NCCP is an effective employment model, improving employment as well as mental health outcomes. When a program model has been shown effective, one next step is to identify the features of the program model that account for its success. To address this question, we proposed to use a mixed methods approach, drawing on three sources: (1) qualitative interviews with career coaches who have provided mentoring in the National Career Coach program, (2) qualitative interviews with participants, and (3) quantitative data from Hire Heroes regarding attendance at in-person training, frequency and type of career coach contacts, and use of human capital fund.

During 2023, we completed both the quantitative and qualitative analyses, but the plan for a report reflecting mixed methods approach proved impractical, because the

quantitative and qualitative findings differed sharply and could not be readily synthesized into a single report. Thus we split the project into two separate studies.

As planned, we conducted a detailed quantitative analysis of NCCP data prepared a written report of these findings. We examined 6 predictor variables (attendance at the in-person training, total number of contacts reported by National Career Coaches, total expenditures from the Human Capital Fund, and participant-reported use of NCCP at the 4-, 8-, and 12-month interviews) and 4 employment outcomes (months worked, monthly earnings, highest hourly wage, and job satisfaction) at 12-month and 24-month follow-up. Three of the 48 correlations were statistically significant at $p < .05$ before correcting for multiple statistical comparisons, which is what we would expect by chance, so the analyses do not support the hypothesis that one or more components of the NCCP are associated with better employment outcomes. We also tested whether expenditures in nine specific Human Capital Fund domains were associated with employment outcomes, but found less than chance number of significant correlations. We concluded that our hypothesis of a linear positive relationship between number of contacts with career coaches and employment outcome was naïve; in fact, the more plausible interpretation was that the number of contacts with a career coach was often minimal for veterans who were successful at employment, whereas career coaches had extensive contact with veterans who were less successful, suggesting a *negative*, rather than positive, correlation between number of contacts and outcome. Regarding the use of human capital fund, we concluded that the benefits were individualized and not directly associated with the dollar amount of the funds used.

The qualitative component of this substudy was more informative. The qualitative study included interviews with 18 veterans enrolled in NCCP and 6 career coaches. The interview included questions about the most beneficial components of the NCCP model. The themes emerging from the qualitative analyses indicated that the most beneficial aspect of NCCP was the role of the career coach. Participants noted the benefits of both practical and emotional support and also the career development framework used by career coaches. Career coaches also noted that the human capital fund was used to great advantage by a small number of veterans. While relatively few participants indicated that the most important component was access to the human capital fund, those who did typically noted that these funds met a specific urgent need. Examples included tuition for certificate programs that qualified veterans for positions that matched their preferences, child care, and clothes for interviews.

We are nearing completion on a manuscript describing these qualitative findings. This report may be useful to veteran organizations seeking to develop more effective employment services for transitioning veterans, such as the US Department of Labor's Veterans Employment and Training Service, which is part of the Homeless Veterans' Reintegration Program. The Department of Labor has recently issued a request for proposals "...to propose strategies to achieve economic prosperity, address historical inequities, and provide equitable access and outcomes to marginalized groups."

- (3) Who benefits from the National Career Coach Program.** The main findings from Independence Project are that the National Career Coach Project is effective in improving employment outcomes for men and women transitioning from the military with service-connected disabilities. One next step is to determine how broadly the study findings

generalize. For example, is the National Career Coach Program effective for different subgroups defined by gender, race, education, and military experience? The two-year outcome paper, reporting the main findings regarding the effectiveness of NCCP (Bond, Al-Abdulmunem, Ressler, Drake, & Gade, 2022), did not examine whether any veteran background characteristics were associated with better employment outcomes. In this secondary analysis we examined two questions: (1) whether any veteran background characteristics were associated with better employment outcomes, and (2) whether veterans with any specific background characteristics especially benefited from NCCP compared to LCR.

To answer the first question, we examined correlations between 18 background characteristics and two-year employment outcomes (mean monthly earnings from employment). Twelve background measures were significantly correlated with outcome, including four demographic measures, three military service measures, and five standardized measures of health and well-being. Regarding demographics, veterans who were older, married, and better educated, and male accumulated higher earnings over the two-year period. Regarding military service, veterans with more years in service, who were on active duty at time of programs entry, and who served in a combat zone had better employment outcomes. Regarding health and wellness, three measures of psychiatric symptoms were modestly correlated with poorer employment outcomes.

To answer the second question, we conducted a series of 2-factor regression analyses pairing each background characteristic with employment program assignment (NCCP versus LCR) and including the interaction term. None of the 18 analyses yielded a significant interaction effect. These analyses suggest that regardless of background characteristics, transitioning veterans generally benefit more from receiving the National Career Coach Program than accessing local community resources.

We have completed the planned analyses and are close to completing a manuscript suitable for submission. We expect to submit to a peer-reviewed journal in the next two months.

- (4) Education outcomes.** We have not yet examined education outcomes but plan to do so in 2024. In each of the annual follow-up interviews, approximately two-thirds of participants indicated that they were enrolled in education, including both degree-awarding formal academic programs and career-oriented certificate programs. In retrospect, these findings are not surprising, but the original research design did not include education as a primary outcome. Nevertheless, the findings for education may have important implications for the design of transition services for veterans. Further questions include understanding concurrent and long-term outcomes for those who enroll in educational programs. Roughly two-thirds of those enrolled in education were also working. How did this group fare, compared to those who did not enroll in any education program and those who were in education only? Longitudinal analyses are most suitable, on the assumption that the economic benefits of education are long-term. Another factor is the type of education program. Was a veteran's education a brief certificate program or a four-year bachelor's program? The study design involved a three-year follow-up period, which may not be adequate to identify the full benefits of education, but we may be able to see some trends.

- (5) **Veterans' recommendations for the design of employment services.** In our qualitative interviews we asked both NCCP and LCR participants to describe how they would design employment services for future transitioning veterans like themselves. Veterans made a variety of suggestions that might be incorporated in future programs. We have coded these data but have not yet synthesized the findings but plan to do so in 2024.
- (6) **Costs of National Career Coach Program.** Another proposed project was conduct a rudimentary cost analysis of NCCP, estimating the per-participant costs of each of its four primary components. Previously we concluded that a comprehensive cost-effectiveness analysis was not feasible because of the difficulty estimating the costs for the control group (Local Community Resources). We have abandoned this project because of challenges estimating some of the key costs, especially those based on data of uncertain reliability, such as number of career coach contacts.

Budget

The Westat contract office is submitting the required financial information by February 29, 2024. The final financial report is not yet ready, but we estimate that Independence Project's cash on hand is approximately \$200,000 as of 12/31/23. Given that we have a number of supplementary substudies that are underway, Westat requests a one-year no-cost extension and permission to carry over these unexpended funds to complete the unfinished work.

Independence Project Publications

- Al-Abdulmunem, M., Carpenter-Song, E., Bond, G. R., Drake, R. E., & Ressler, D. R. (2023). Transitioning veterans with service-connected disabilities seeking employment: A qualitative study of barriers and strategies. *Austin Journal of Psychiatry and Behavioral Sciences*, 9(2), 1095.
- Bond, G. R., Al-Abdulmunem, M., Drake, R. E., Davis, L. L., Meyer, T., Gade, D. M., Frueh, B. C., Dickman, R. B., & Ressler, D. R. (2022). Transition from military service: Mental health and well-being among service members and veterans with service-connected disabilities. *Journal of Behavioral Health Services and Research*, 49, 282-298. <https://doi.org/10.1007/s11414-021-09778-w>
- Bond, G. R., Al-Abdulmunem, M., Ressler, D. R., & Drake, R. E. (2023). Mental health impact of COVID pandemic on veterans transitioning from military. *Journal of Behavioral Health Services and Research*, online. <https://doi.org/10.1007/s11414-023-09869-w>
- Bond, G. R., Al-Abdulmunem, M., Ressler, D. R., Drake, R. E., Davis, L. L., Meyer, T., Gade, D. M., Frueh, B. C., & Dickman, R. B. (2022). Evaluation of an employment intervention for veterans transitioning from the military: A randomized controlled trial. *Journal of Nervous and Mental Disease*, 210, 321-329. <https://doi.org/10.1097/NMD.0000000000001472>
- Bond, G. R., Al-Abdulmunem, M., Ressler, D. R., Drake, R. E., & Gade, D. M. (2022). Randomized controlled trial of an employment program for veterans transitioning from the military: Two-year outcomes. *Administration and Policy in Mental Health and Mental Health Services Research*, 49, 1072–1083. <https://doi.org/10.1007/s10488-022-01208-z>