

Estimating Return on Investment for Workforce Development Nonprofits

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Individual Report: KindWork

Organization:	KindWork
Data timespan:	Feb 2020 – Oct 2021
Participant sample size:	69
Relative employment barrier for target population:	Medium

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Project Overview

Workforce development nonprofits play a crucial role in combating poverty by providing training, placement, and other supports to jobseekers, thereby equipping them to secure higher wages and greater financial security. However, there is no standardized method for measuring relative effectiveness among these programs. As hinted at in the vignettes above, many practitioners operate without a clear sense of what excellent performance looks like (or which program ingredients are likely to drive it) and grantmakers often make funding decisions based on incomplete measures such as cost per participant or placement rates.

Arbor Rising seeks to develop a standardized methodology to estimate return on investment (ROI) for workforce nonprofits. It is our hope that this methodology can:

- help establish broad benchmarks for cost-effectively serving a given target population, enabling practitioners and their funders to identify both strengths and areas for improvement in operating models; and
- promote consistency, clarity and rigor in characterizing outcomes data across the sector.



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Defining 1-year ROI in workforce development

Two key figures constitute the basic value proposition workforce development organizations offer:

- 1) how much it costs to train and place a program graduate, and
- 2) how much financial return those placed graduates see as a result.

These figures expressed as a ratio—the financial gain per dollar spent in training—is return on investment, or “ROI”, the central measure of a job training organization's cost-effectiveness. We define this more specifically as the average annual financial gain per placed graduate per philanthropic dollar.

$$\frac{\text{Net financial return per placed graduate}}{\text{Fully-loaded philanthropic cost per placed graduate}}$$

While this return is ideally realized over years of post-placement employment, for comparability and data availability reasons we recommend first calculating ROI on a 1-year basis (i.e. excluding additional future earnings):

$$\frac{(\text{Placement wage} - \text{Pre-enrollment wage}) + \text{Stipend} - \text{Foregone wages}}{(\text{Fully-loaded cost} - \text{Earned income}) / \text{Placed graduates}}$$

Additional money that a participant earns, relative to what they would have earned had they stayed at their pre-enrollment wage level. This incorporates pre- and post-placement earnings as well as in-program earnings (e.g. stipends.) and foregone wages (earnings that a participant may need to forego for a period of time to participate in the training).

All organizational costs—including direct program and allocated overhead—less any earned income from captive businesses for a given timespan, divided by the number of placed graduates in that timespan. (We do not include unplaced participants, whom we assume do not see meaningful financial return.)

Strengths of this approach

Combining these relatively simple measures of impact and costs presents a reasonable first approximation of a workforce development organization's value proposition. This is in contradistinction to commonly cited workforce development metrics that are often nonstandard or misrepresentative in isolation, such as:

- Cost per participant, which does not express whether participants are placed or how much they earn
- Placement rate, which speaks to an organization's ability to secure jobs for participants, but not how much they earn as a result or how much the program costs to run
- Wage delta, which does not express the cost of serving a participant
- Definitions of net financial return that include many years of post-placement earnings, which limit comparability and can overstate wage trajectories through overly rosy assumptions
- Metrics that understate costs by excluding allocated overhead

Limitations of this approach

However illuminating it may be, this articulation of ROI is not by itself a comprehensive measure of organizational performance. It does not fully reflect factors such as relative barriers to employment, longer-term career trajectories, non-financial gains for participants, program scalability, or avoided societal costs due to employment. Thorough evaluations of workforce development organizations should take these externalities into account in a more holistic way.

Estimating 1-year ROI

The table below reflects our estimate of KindWork's 1-year ROI estimate based on data submitted in November 2021 (see appendix for additional data.)

KindWork: Estimated 1-year ROI		
Barriers to employment faced by target population: <i>Med</i>		Data span: <i>Feb 2020 – Oct 2021</i>
<i>Component</i>	<i>Calculation</i>	<i>Estimate</i>
Wage delta	Placement wage - pre-enrollment wage	\$33,198
Net in-program earnings per participant	In-program stipends and wages - foregone wages	-\$1,533
Earned income (% of fully-loaded cost)	Funds that reduce the program's philanthropic cost, including ISA* earnings and placement fees	0%
Philanthropic cost per placement	(Fully-loaded cost - earned income) / placed grads	\$11,902
1-year ROI	(Wage delta + net in-program earnings) / philanthropic cost per placement	2.7x

* ISAs, or income-sharing agreements, require placed graduates to pay back part of their tuition costs post-placement. For programs with ISAs, we subtract expected payments from placed graduates' net financial return.

How to interpret this estimate

This ROI estimate is expressed as a multiple: each philanthropic dollar (\$1.00) contributed to KindWork created 2.7x its value (\$2.70) in financial gain for placed graduates (in the time between enrollment and one year post-placement).

Alternative formats

1-year ROI can also be expressed in the following equivalent forms:

- Philanthropic cost per additional \$1 return to a placed graduate
- Number of months post-placement after which the net financial return to a placed graduate equals the philanthropic investment in one placed graduate

Alternative format	Calculation	Estimate
Philanthropic cost per additional \$1 earned	Philanthropic cost per placement / (wage delta + net in-program earnings)	\$0.38
Months to break-even	Philanthropic cost per additional \$1 earned * 12	4.5

Interpreting ROI estimates below 1.0x

If an organization has an ROI estimate below 1.0x (each philanthropic dollar invested leads to less than \$1.00 in financial return to placed graduates within one year), would it have been better to give participants the money directly instead of spending it on training? While research does suggest that cash transfers are more efficient in certain circumstances, and we do see clearing 1.0x within the first year as an important indicator of impact, there are a number of reasons an effective program might have an ROI below that figure: serving a very challenging population, low initial but high eventual wages, sub-scale earned income businesses, etc.

We also emphasize that the metric described above only measures ROI within one year of placement. Placed graduates of workforce development nonprofits often earn at or above their new wage level for many years post-placement, effectively earning the amount of their wage delta (or greater, if their wages rise) many times over. (A cash grant, by contrast, creates financial return only once.) The next section presents a methodology for estimating multi-year ROI, which projects some of these additional earnings.

Defining multi-year ROI in workforce development

Our 1-year (simplified) ROI estimates define net financial return as a placed graduate's additional earnings from enrollment through to one year post-placement. However, provided they remain employed in the same or a similar job for more than one year post-placement, placed graduates continue earning additional money beyond that date. We therefore define multi-year ROI as follows:

$$\frac{\text{Stipend - Foregone wages + Net present value (NPV) of additional post-placement earnings}}{\text{(Fully-loaded cost - Earned income) / Placed graduates}}$$

(Fully-loaded cost - Earned income) / Placed graduates

As in the 1-year ROI estimate, "Stipend - Foregone wages" captures participants' net in-program earnings. Unlike the 1-year estimate, in place of wage delta, the multi-year estimate uses the net present value¹ (NPV) of additional post-placement earnings: the time-discounted value of the additional money that placed graduates earn over a given number of years post-placement as a result of the program. We use a discount rate of 10%.

To maximize comparability, this method does not account for increases in placed graduates' wages nor persistence rates in the years post-placement, as many workforce development organizations do not have robust data available on placed graduates' longer-term earnings trajectories.

This method can be used to estimate workforce development organizations' ROIs from enrollment to any number of years post-placement, though extending the timespan is likely to reduce the accuracy of the estimate. The ROI estimates below include placed graduates' net financial return from enrollment to two years post-placement.

Estimating 2-year ROI

KindWork: Estimated 2-year ROI		
Target population barrier group		Medium
Data timespan		Feb 2020 – Oct 2021
Component	Calculation	Estimate
Wage delta	Placement wage - pre-enrollment wage	\$33,198
Net in-program earnings per participant	Stipend - foregone wages	-\$1,533
Earned income per placement	Funds that reduce the program's philanthropic cost, including ISA* earnings and placement fees	0%
Philanthropic cost per placement	(Fully-loaded cost - earned income) / placed grads	\$11,902
2-year ROI	(NPV of additional earnings + net in-program earnings) / philanthropic cost per placement	5.2x
<i>Philanthropic cost per additional \$1 earned</i>		\$0.19

* For programs with ISAs, we subtract expected ISA payments from placed graduates' net financial return.

¹ More information about net present value available [here](#).

Contextualizing ROI

Barriers to employment faced by target population

While this methodology for estimating ROI incorporates pre-program wages, it does not fully take into account the relative scale of social, economic, and other barriers faced by a given organization's target population. Organizations serving high-barrier populations are likely to spend more resources per participant in order to deliver comparable outcomes. For instance, while two organizations may both be serving the currently unemployed, the one serving formerly incarcerated persons will likely need to invest much more per participant than the one serving recent college graduates in order to drive similar wage deltas.

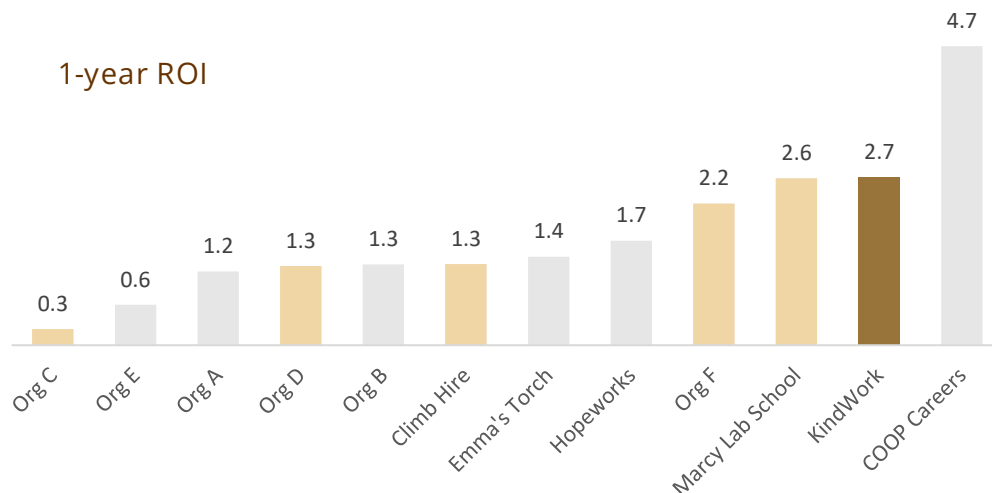
To better contextualize an organization's cost-effectiveness, we present ROI and its component parts both compared to all study participants and to a narrower group of peer orgs serving broadly similar populations. Participating organizations were sorted into three broad groups (below) based on the employment barriers faced by their target populations.

Target Population Barrier Groups	
Characteristics	Group
Few participants involved in state systems, most participants speak English proficiently, and/or most participants hold 2- or 4-year college degrees at enrollment	Low barrier
Many participants involved in state systems, many participants speak English proficiently, and/or many participants hold 2- or 4-year college degrees at enrollment	Medium barrier
Most participants involved in state systems, few participants speak English proficiently, and/or few participants hold 2- or 4-year college degrees at enrollment	High barrier

* Few: (0-25%); Many (25-75%); Most (75-100%)

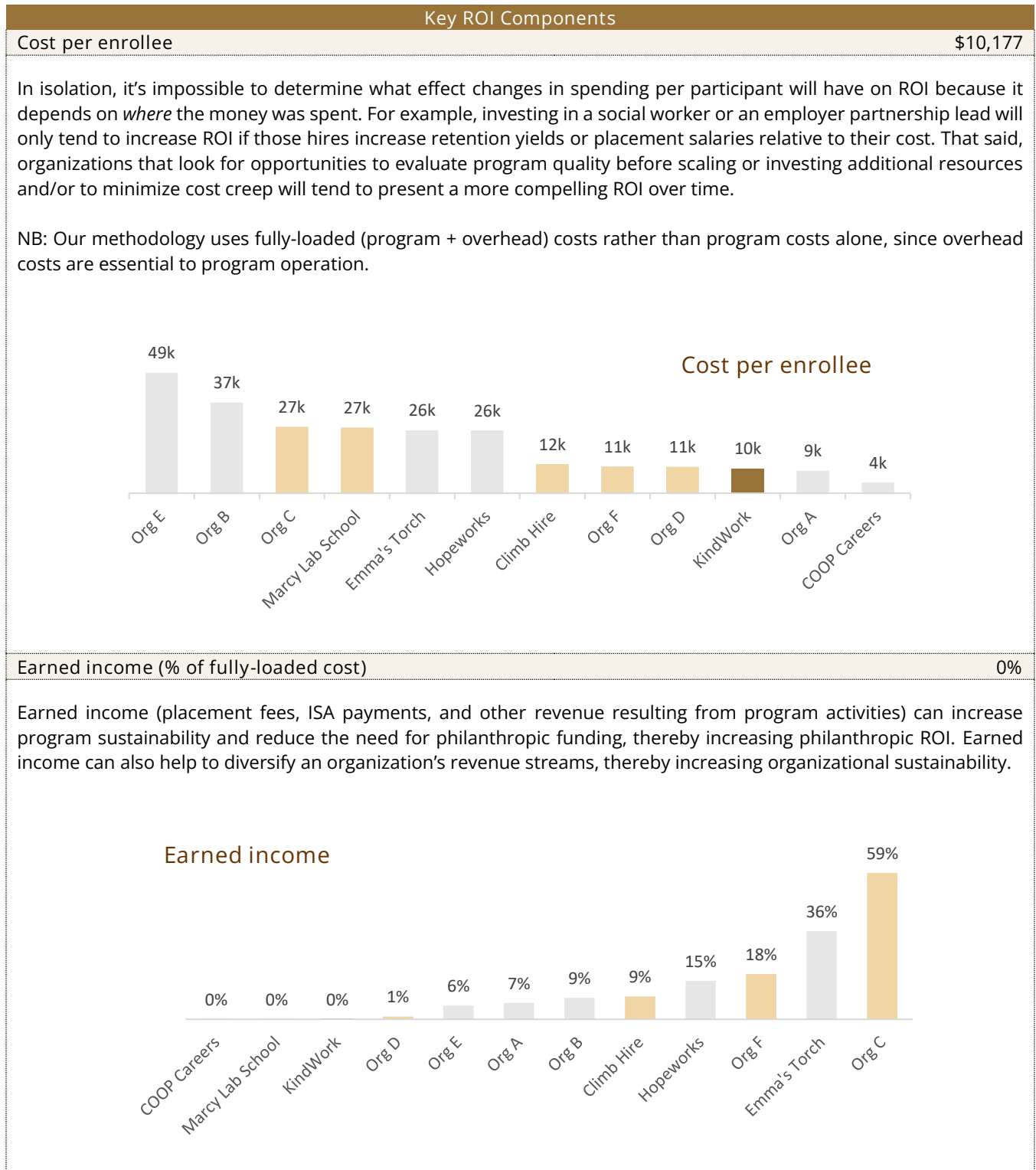
** State systems include foster care, shelter, prison, and refugee resettlement

KindWork was most comparable to peers in the medium-barrier group. The chart below shows their 1-year ROI alongside those of peers in that group (tan) and organizations serving different populations (gray).



Components of ROI

Our hope is that this methodology aids workforce organizations in understanding, communicating and ultimately maximizing their ROI. To this end, we decompose KindWork's ROI into five key components that drive cost-effective impact in workforce development. All charts below show KindWork figures (brown) alongside those of its target population barrier group peers (tan) and other organizations (grey).



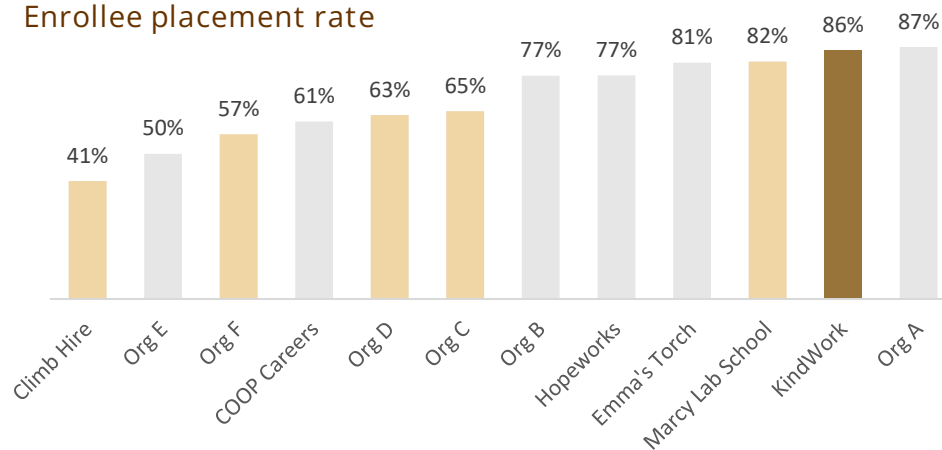
Enrollee placement rate

86%

Our methodology uses the cost per placed graduate rather than the cost per participant, on the assumption that unplaced enrollees do not typically see meaningful financial returns. Successfully placing a greater proportion of enrollees reduces the cost per placed graduate, thereby increasing ROI.

Organizations with high placement rates tend to cultivate strong employer partnerships, develop high-quality training curricula closely aligned with industry needs, and ensure that graduates are equipped with professional and career skills (resume writing, interviewing, networking, etc.) in addition to job skills.

Enrollee placement rate

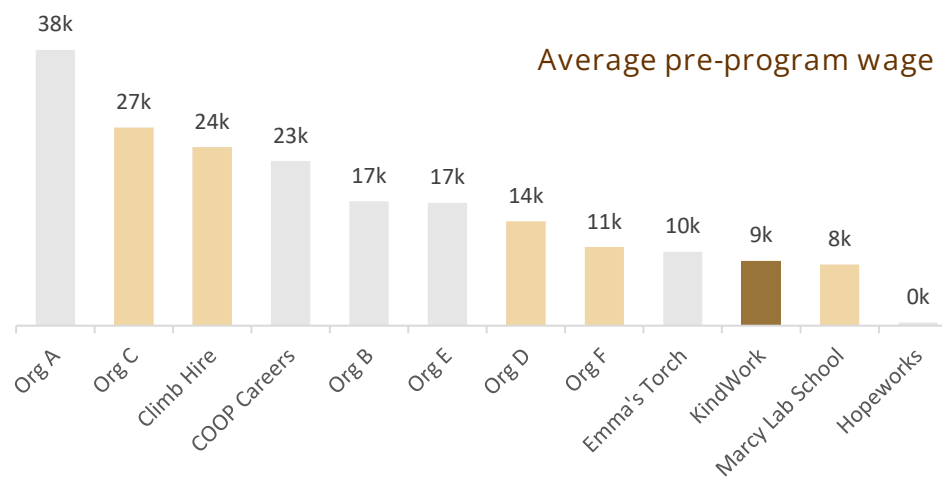


Average annual pre-program wage

\$8,880

Serving lower-income populations lowers average pre-program wage. Provided that the placement wage and placement rate remain constant, this increases the program's average wage delta (the amount by which a placed graduate's salary at placement differs from their pre-program wage), thereby increasing its ROI.

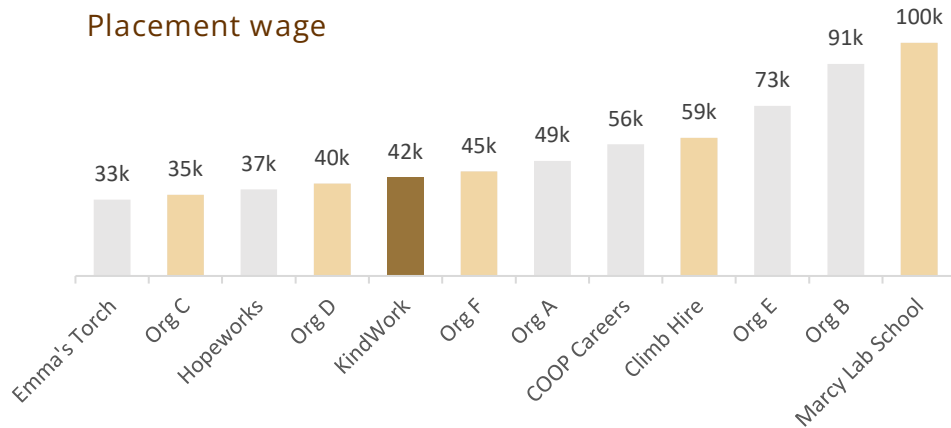
Average pre-program wage



Average annual placement wage

\$42,078

Selecting highly compensated career tracks, investing in participants' skill development, supporting graduates' job searches, and building relationships with employers can increase placement wages. This increases organizations' average wage delta, thereby increasing ROI.



Factors excluded in these estimates

In developing these estimates, we chose to balance accuracy with usability. This resulted in a number of trade-offs and limitations, including but not limited to:

- Counterfactual wage: We calculated wage deltas by subtracting reported pre-enrollment wage from placement wages except in the case of very recent college graduates, for whom we estimated the *counterfactual* pre-placement wage (what a typical participant would expect to earn in the next 12 months). The counterfactual wage could be more informative for comparison in other cases as well, but few workforce development organizations have rigorous data on these projections (it is often expensive and difficult to obtain with accuracy).
- Wage and career trajectory: Neither the simplified nor multi-year estimates account for placed graduates' post-placement wage increases or retention, or for non-financial aspects of job quality (working conditions, job security, etc.), since most participating organizations did not have this data readily available.
- Scale: These estimates reflect the efficiency with which organizations convert philanthropic funds into financial gain for placed graduates, but do not reflect the total number of placed graduates served—an important aspect of total impact.
- Adjustment for program growth or program quality improvements: Our method likely underestimates ROI for organizations that were investing significantly in scale or program quality during the data timespan. (If an organization incurs costs during the measured timespan, but does not reap the benefits of that investment until after the timespan concludes, this methodology would include those costs but exclude the resulting improvement in outcomes.)

Appendix: Submitted Data

KindWork submitted the data below in November 2021. In cases where actuals were not available, AR collaborated with each participating organization to determine best-fit estimates. These estimates are italicized below. (KindWork does not use ISAs, and therefore did not submit ISA terms.)

	Definition	Submitted data	Data treatment notes
Data type	Time category (Pre-COVID, COVID, mixed, or combined) for which data is collected	COVID	We define pre-COVID datasets as ending no more recently than December 2019, and post-COVID datasets as beginning no earlier than April 2020. Mixed datasets cover both timespans. For organizations that submitted both a pre-COVID and a COVID dataset, we combined both to yield a single larger dataset.
Data start	Time boundary	2/24/2020	The participant(s) with the earliest graduation date in the dataset graduated on or after this date. For organizations with overlapping participant cohorts, this date typically aligns with a cohort's graduation date so as to avoid understating ROI. (Since ROI estimates for programs with overlapping cohorts often include costs associated with enrollees who enrolled during but graduated after the timespan, thereby counting these enrollees towards a program's costs but not its outcomes, we sought to also include enrollees who enrolled before but graduated during the timespan. Our expectation was that this choice would help to balance excluded outcomes and included costs at the end of the timespan by including outcome and excluding costs at the start of the timespan. This choice was likely most effective for organizations who did not see significant growth in their number of placed graduates over the course of the timespan.)
Data stop	Time boundary	10/15/2021	The participant(s) with the latest graduation date in the dataset graduated on or before this date.
Average annual wages pre-enrollment	Average actual wages from prior 12 months before enrollment (all participants)	\$8,880	Typically based on participants' self-reports, and typically recording participants with no income at enrollment as earning \$0 in pre-enrollment wages.
# of enrollees	Total participants who enrolled within timespan	69	
# of 2-yr degree holders	# of placed graduates who held degrees from 2-year college programs before enrolling	8	Where this figure was not available, organizations cited the number of enrollees who held degrees from 2-year college programs before enrolling.
# of 4-yr degree holders	# of placed graduates who held degrees from 4-year college programs before enrolling	10	Where this figure was not available, organizations cited the number of enrollees who held degrees from 4-year college programs before enrolling.
Program duration	For placed graduates, average months between enrollment and graduation	3	Where this figure was not available, organizations cited the average months between enrollment and graduation for all graduates.
Time to placement	For placed graduates, average months between graduation and placement	0	
Foregone wages	Percentage of pre-enrollment wages that participants forego during vestibule, enrollment and time to placement as a consequence of program participation	75%	All participating organizations estimated this figure, usually based on hours of programming per week, whether (in the case of part-time programs) those hours were during work hours, and staff's perception of typical participant behavior.
Stipends paid	Average total stipend per participant during program duration	\$ 132	Includes wages earned as part of program activities, if applicable
Fully-loaded cost	Total program and overhead expenses within timespan	\$702,222	Equivalent to full organizational budget
Total earned income	Total earned income (via program activities) within timespan	\$0	
# of graduates	Total enrollees who graduated within timespan	64	
# of placements	Total enrollees placed within timespan	59	Occasionally, timespans ended recently enough that participating organizations did not yet have complete placement data for graduates within the timespan. In these cases, organizations shared their projected total placements.
Average placement wage	Average annual wage at placement across all participants placed within timespan	\$42,078	This figure includes only wages (excluding the value of benefits, equity, etc.), as data on non-wage compensation (where applicable) was often limited or incomplete. As a result, this methodology may underestimate ROI for organizations whose placed graduates often received substantial non-wage compensation.