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<b>Proc Folder:</b> 1374665 <b>Doc Description:</b> Worker Profiling Re-employment System Evaluation			<b>Reason for Modification:</b>
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2024-02-13	2024-02-29 13:30	CRFP 0323 WWV2400000003	1

**BID RECEIVING LOCATION**

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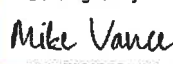
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WV PURCHASING  
DIVISION

**VENDOR**

Vendor Customer Code: VS0000037830  
 Vendor Name : Resultant LLC  
 Address :  
 Street : 111 Monument Circle, Suite 202  
 City : Indianapolis  
 State : Indiana Country : USA Zip : 46204  
 Principal Contact : Chad Timmerman  
 Vendor Contact Phone: 463-271-8497 Extension:

**FOR INFORMATION CONTACT THE BUYER**  
 Toby L. Welch  
 (304) 558-8802  
 toby.l.welch@wv.gov

DocuSigned by:  
  
 Vendor Signature X  
 FEIN# 30-0517849  
 DATE 27 February 2024

All offers subject to all terms and conditions contained in this solicitation

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Chad Timmerman, Senior Consultant  
(Address) 111 Monument Circle, Suite 202, Indianapolis IN 46204  
(Phone Number) / (Fax Number) 463-271-8497  
(email address) ctimmerman@resultant.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor’s behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Resultant LLC

(Company) DocuSigned by: Mike Vance  
(Signature of Authorized Representative) 663679589551438...  
Mike Vance, EVP Professional Services  
(Printed Name and Title of Authorized Representative) (Date)  
317-452-1700  
(Phone Number) (Fax Number)  
salessupport@resultant.com  
(Email Address)

# REQUEST FOR PROPOSAL

## WorkForce West Virginia RFP WWV2400000003

### WORKER PROFILING RE-EMPLOYMENT SYSTEM EVALUATION

Proposal 1: Step 1 –  $\$1,000,000 / \$1,000,000 =$  Cost Score Percentage of 1 (100%)  
Step 2 –  $1 \times 30 =$  Total Cost Score of 30

Proposal 2: Step 1–  $\$1,000,000 / \$1,100,000 =$  Cost Score Percentage of 0.909091 (90.9091%)  
Step 2 –  $0.909091 \times 30 =$  Total Cost Score of 27.27273

**6.8. Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

DocuSigned by:

*Mike Vance*

65367858B551438...

Resultant LLC

\_\_\_\_\_  
(Company)

Mike Vance, EVP Professional Services

\_\_\_\_\_  
(Representative Name, Title)

317-452-1700

\_\_\_\_\_  
(Contact Phone/Fax Number)

27 February 2024

\_\_\_\_\_  
(Date)

**ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: CRFP WWV24\*003**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

*(Check the box next to each addendum received)*

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Resultant LLC

Company  
DocuSigned by:

*Mike Vance*

0330785288951438  
Authorized Signature

27 February 2024

Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.

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Resultant LLC

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Company  
DocuSigned by:  
*Mike Vance*  
8366900262CF459...

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Authorized Signature

04 March 2024

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Date

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Resultant LLC

Company

DocuSigned by:  
*Mike Vance*

8366900392CF459

Authorized Signature

04 March 2024

Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.

Revised 6/8/2012



Department of Administration

2019 Washington Street East

Post Office Box 50130

Charleston, WV 25305

Dear Selection Committee

Resultant is excited to submit a comprehensive proposal for the Worker Profiling Re-Employment System Evaluation project. Our proposal was developed to satisfy all goals and requirements set forth in the WorkForce West Virginia (WorkForce WV) RFP.

We recognize you have an important decision to make as you seek these services. This proposal demonstrates why we believe we are best suited to help you achieve your objectives, including leveraging statistical analysis to answer your research questions.

At Resultant, our purpose is to collaborate with clients to achieve their desired outcomes, tailoring our approach to the specific challenges each organization faces. Rather than merely aligning problems with our services, we focus on crafting distinctive solutions for the issues at hand. Our process begins with an in-depth understanding of our clients, their operations, and their aspirations, enabling us to empathize with their challenges as if they were our own. This partnership ensures WorkForce WV's objectives are our central focus.

With workforce and education agency clients in more than a half dozen states, we believe that WorkForce WV will benefit from the following attributes of Resultant:

- Company based in Indiana, with passionate and highly skilled resources located throughout the country with more than a decade of experience with state education, higher education, and workforce development agencies.
- Education and workforce practices with over 150 years of combined experience across early childhood, K-12, and postsecondary education with experience serving state education and workforce agencies, colleges, large school districts, and nonprofits.
- Broad breadth of state, local, and federal government, and private sector experience.

We believe our team's abundant expertise, experience, and passion for problem solving make us the best choice to help WorkForce WV achieve their desired outcomes with this project. Our successful track record with similar assessments for educational institutions and workforce entities across multiple states, coupled with our ability to leverage cutting-edge data analytics and innovative methodologies, positions us to deliver insights and positive long-term impact for West Virginia's RESEA program.

Should you have any questions, do not hesitate to contact me at 463-271-8497 or [ctimmerman@resultant.com](mailto:ctimmerman@resultant.com).

Chad Timmerman  
Senior Consultant  
Workforce and Economic Development Practice



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# TECHNICAL PROPOSAL

## About Resultant

Resultant, formerly KSM Consulting, is a human-centered consulting firm headquartered in Indianapolis, Indiana and along with employees spread across 31 states. Resultant has worked with clients nationwide since 2008 to achieve their organizational goals by maximizing their people, processes, and technology. We serve more than 750 active clients in the public, private, and non-profit sectors. Today, we have around 450 talented employees and continue to grow. Our team includes strategists, technical experts, subject matter experts, project managers, and management consultants with extensive experience and expertise in data collection, analysis, business processes, project management, and organizational change management. We are a technology-agnostic firm that develops the right solutions for our clients' needs based on their business objectives and preferred technology.

Resultant takes a unique approach by striving to look at and think about systems, technology, and data from a human-centered perspective. What makes data, accessibility to data, and the systems that leverage that data essential? The system is not the end, but a means to an end, to empower the accomplishment of efficient and effective outcomes and to deliver elite results to the stakeholders involved. In addition, this approach supports building future-proofed systems that empower growth, improve capability expansion, and promote system adaptability.

We start by learning as much as we can about who our clients are, how they work, and what they're striving for so we can feel their problems as our own. Partnering with our clients means their desired outcomes are always top of mind, their challenges and strengths guide our efforts. We build client-focused relationships before we build unique solutions that blaze past expectations. See below for a sampling of current and previous clients.





## About Resultant's Workforce & Economic Development Practice

Resultant's Workforce and Economic Development practice partners with clients to solve complex workforce challenges. Every challenge is an opportunity. We seek to solve these issues by coming alongside our clients as fearless problem solvers. Through looking at the workforce system holistically, from K-12, to postsecondary, to workforce, we can improve workforce and UI programs leading to increased economic development and improved citizen outcomes. Our team has deep expertise in workforce and UI policies and programs, advanced data analytics, stakeholder engagement, technology services, and digital transformation that is needed to solve complex issues. With our passionate expertise and understanding of the intricacies of workforce ecosystem, we work to facilitate collaboration and stakeholder engagement amongst diverse stakeholder groups. Our practice brings passionate expertise in the education to workforce continuum, including understanding and experience with K-12, postsecondary, workforce, and UI data and trends. We excel at leveraging data and technology to improve not only agency programs and customer services, but more importantly by increasing economic mobility and educational attainment of constituents.

Our offerings are aligned to improving overall citizen outcomes by seeking to bring transparency and clarity of talent pipelines and available talent programs, ensuring talent programs are fostering positive outcomes, improving agency customer services and data driven business decision making, increasing ease of use and accessibility of workforce and UI programs that leads to an improved customer experience. We partner with workforce organizations to create human-centric systems that intentionally guide citizens toward occupations, training, and education that foster economic prosperity at the individual, local, and state levels.

Our track record includes successful projects with state workforce and economic development agencies, local and state workforce boards, colleges, non-profits, and service providers nationwide, including in Indiana, Colorado, Nevada, Ohio, Michigan, Florida, Missouri, Oregon, and Vermont.

Resultant will provide a Sr. Consultant, Chad Timmerman, from the Workforce & Economic Development Practice to act as a subject-matter-expert on workforce and unemployment programs, policies, and data. Importantly, Chad will collaborate with the data scientists to provide the context to the model outputs from a programmatic and citizen-centric lens.

## Understanding of the Opportunity

Resultant appreciates the opportunity to provide WorkForce West Virginia with our comprehensive proposal for the Worker Profiling Re-employment System Evaluation. Resultant understands the importance and accuracy of the calculations to ensure that West Virginians that are at risk of exhausting their unemployment insurance (UI) benefits are provided re-employment services in a timely manner. The goal and output of the calculation is to identify West Virginians who are at risk and provide re-employment services as an intervention as early as possible to reduce the duration that citizens are on UI and improve employment outcomes ensuring UI claimants return to work prior to the exhaustion of their unemployment insurance (UI) benefits.

The scope of this project is to review the current Benefit Exhaustion Calculation and make any needed recommendations to WorkForce West Virginia for updating the model to meet current agency objectives. Resultant understands that the model has not been updated since 2003 and will deploy an approach and methodology that will provide a comprehensive evaluation of the current Benefit Exhaustion Calculation which will include validating or determining efforts necessary to update the model. This project scope does not include implementation of the recommendations, rather will culminate in a final report assessment that will be provided to the agency by September



30, 2024. The final report assessment will include methodologies, findings, and actionable recommendations and next steps that the agency can take to align the Benefit Exhaustion Calculation with Workforce West Virginia objectives.

Resultant has extensive experience in the workforce space, including working with federal programs and leveraging state data, specifically unemployment and workforce data, to perform analysis on programs and assist agencies with improving business decision making and service delivery that ultimately led to better citizen outcomes. Resultant understands WorkForce WV's desire to evaluate the efficacy of its RESEA claimant selection model. WorkForce WV has not updated this model for many years and seeks a fresh look at its model to understand whether it's generating optimal outcomes under current conditions. Today, WorkForce WV likely has broader data assets and more sophisticated IT infrastructure. Additionally, there are more developed inventories of best practices and research-driven insights to inform evaluations, analyses, and recommendations for RESEA claimant selection modeling. We are confident our team is well-positioned to thoroughly evaluate and analyze the worker profiling and reemployment services (WPRS) model and generate insightful recommendations that can fit within WorkForce WV's operational environment.



## Project Goals and Proposed Approach

### APPROACH AND METHODOLOGY TO GOALS AND OBJECTIVES

#### APPROACH

Resultant proposes a multi-phased approach to understand, analyze, and report on WorkForce WV's WPRS model. Our team will initially kickoff the project with WorkForce WV's project team, following by thorough discovery that will ensure all available information and data assets are properly incorporated. Once all information and data assets are accounted for, our data team will multiple statistical analyses to determine the efficacy of the current WPRS model and uncover updates that align with WorkForce WV's goals for the Benefit Exhaustion Calculation model. Our team will routinely communicate, coordinate, and collaborate with the WorkForce WV Team throughout the project to ensure our team's processes and deliverables match WorkForce WV's goals and expectations.

#### Phase 1: Kickoff

As soon as the contract is awarded and finalized, Resultant will schedule the kickoff meeting. To officially kick off a project, Resultant has found value in bringing all key project stakeholders together to define roles, agree on ultimate goals, walk through the process for the project, and begin a high-level discovery.

With WorkForce WV, we recommend this kickoff take place during a two-hour meeting with an agenda that typically follows the following structure:

- Introductions and project team roles
- Review of engagement objectives and project goals
- Sharing of additional context and background
- Share and discuss project plan and timeline
- Communications planning
- Next steps review and assignment

#### Phase 2: Discovery

The Resultant team will immediately begin work on data and information discovery following project Kickoff to fully understand WorkForce WV's current WPRS data model. It will also be critical to assess WorkForce WV's data assets. Our data experts will seek out documentation on data elements used in the current WPRS model as well as other elements that could inform recommendations. Simultaneously, our team will actively review available research on RESEA participant selection methodologies used in other states as well as USDOL best practices, regulatory requirements, and guidance. The discovery process for this project will be foundational to achieving WorkForce WV's goals. Our team will thoroughly pursue and catalog resources, which will enable high quality analysis in the subsequent phase.



## Current WPRS Model

The team will retrieve the existing script of the model to understand the methodology, algorithms, and parameters previously used. We plan to access the documentation of original process as well. This analysis will provide insights into the model's design and computational logic, which will be essential for further evaluation and potential enhancements. The team will also understand the current data platforms involved in WPRS such as storage, cleaning, modeling, calculating. Resultant assumes access to the existing WPRS model and its existing results in the past.

The team will engage with stakeholders and identify perceived gaps and areas for improvement in the current model. We assume stakeholders, ranging from data analysts to program administrators, will offer valuable insights into the model's real-world impact, effectiveness, and shortcomings.

## Data and Infrastructure Discovery

Our team will work diligently to uncover WorkForce WV's data assets and infrastructure that will enable our team to thoroughly evaluate and analyze the RESEA WPRS. For this stage, we propose pursuing the following steps:

**Data Accessibility (Data Sharing Agreements):** The team will evaluate the access mechanisms to the data necessary, including ownership of the data and what are the current use restrictions and privacy laws applicable to the data. Based on the findings, Resultant team will navigate the data sharing framework, including drafting data sharing agreements.

**Understanding Current Technology Stack:** Resultant team will also evaluate the current technology stack. This evaluation will include inspection of the systems where relevant data resides, the computational environment where the current model runs, and the mechanisms through which results are disseminated. Identifying any limitations, such as data integration challenges, computational constraints, or issues with result delivery mechanisms, will be crucial for addressing any obstacles to the model's performance or scalability.

**Initiating Data Discovery:** The Resultant team will initiate the data discovery session by gathering and examining all available data, including UI and RESEA data, focusing on collecting metadata associated with the current dataset. This task will help understand the nature, scope, and limitations of the data, crucial for assessing its potential in contributing to an accurate and reliable model.

**Data Cataloging:** Next, the team will catalog the data sources, identifying and documenting the origins of the data, such as government databases, internal records, and third-party data providers. This step is foundational for understanding the breadth and depth of information available, crucial for the model's accuracy and reliability.

**Data Profiling:** Following data cataloging, the team will profile the data to assess its quality, consistency, and relevance. Through statistical analysis, the team will detect anomalies, patterns, or trends that could influence the model's performance, ensuring the dataset's robustness and its representative nature.

## External Research

Our team will conduct a comprehensive review of external research and resources to acquire a full accounting of evaluation/analysis best practices, prospective improvements, and conformity with legal/regulatory requirements for RESEA candidate selection methodologies. External research sources will include, but may not be limited to the following:

**Published Research and Evaluations:** Our team will review existing research or publications to enhance insight into the effectiveness of similar models as well as different models deployed in other states. A prominent example includes USDOL's ["Reemployment Services and Eligibility Assessments \(RESEA\) Evidence Building and Implementation Study."](#)



**Models in Other States:** Our research and data analysis team will collaborate to identify states with similar RESEA candidate selection designs and structures. States with significant model similarities will be contacted to gain further insight into candidate selection outcomes. This outreach could potentially help our data analysis team validate evaluative findings for WorkForce WV's current model and identify potential improvements.

**USDOL Guidance and Regulatory Requirements:** Publicly available USDOL resources will be examined to understand model development best practices. Critically, our team will use USDOL's content to ensure recommendations comply with legal requirements.

### Phase 3: Model Validation, Data Collection, and Statistical Analysis

This phase will focus on developing an approved outline of our planned approach and, upon approval, testing and validating the existing model as well as collecting, cleaning, and preparation of data. This work will set the stage for and lead directly to the comprehensive data analysis. To achieve this, we will employ an iterative, sprint-oriented approach, carefully designed to extract valuable insights from the data in a structured format. This process will harness the collective expertise of Resultant's team and engage in a collaborative partnership with WorkForce WV, ensuring a dynamic and impactful analysis process.

#### Outline of Approach

At the outset of Phase 3 our team will outline a plan for evaluating the current model and developing updates to the benefits exhaustion calculation model. Our team will seek feedback and approval for the proposed process and techniques. The Phase 3 steps and techniques described below are proposed based on our team's current understanding of the RFP and will be revisited/revised based on feedback and approval from West Virginia WV's project team.

#### Data Exploration

In the data exploration process Resultant cleans the data and explores correlations within the data.

**Data Preparation:** Our team will focus on the collecting, cleaning, and preparing quantitative data, setting the stage for comprehensive data analysis.

**Utilizing Discovery:** To generate confidence on understanding of the data and boost the model building phase, we will deploy informational resources acquired in the Discovery phase to make sure we sync in the same definitions and assumptions as WorkForce WV project team.

#### Model Validation

Throughout the model validation process, our team will employ a variety of statistical techniques to evaluate WorkForce WV's current model. Planned work for this phase includes the following:

**Current Model Simulations:** Resultant team will rigorously assess the model's historical accuracy by conducting simulations to pinpoint when the model forecasted benefit exhaustion, and then cross-referencing these predictions with the actual instances of benefit depletion. This analysis is designed to evaluate the model's predictive accuracy in determining the timing of benefit exhaustion events.

**Dual Model Approach:** Building on insights from prior stakeholder interactions concerning potential discrepancies in the model's predictions, the Resultant team will employ a dual approach of model simulation and analysis of historical data. The purpose of the dual model approach is to verify the presence of these discrepancies as consistent patterns, and where feasible, to quantify the extent of these discrepancies.



**Discrepancy Analysis:** Utilizing a combination of simulations and statistical tests, the team will identify and analyze any disparities between predicted and actual outcomes. The focus will be on quantifying the impact of these discrepancies, specifically the magnitude and significance of the prediction gaps. Further, the analysis will extend to forecasting future discrepancies by extrapolating current findings into future periods. This will involve using the identified patterns of prediction gaps to estimate their potential future impact, providing a basis for anticipating and mitigating model inaccuracies.

#### Roadmap to New Model and Proof-of-Concept

Preceding evaluations will enable our data team to identify and measure quantitative gaps. These gaps will allow the data team to determine whether a new RESEA candidate selection model is appropriate.

**Roadmapping Process:** Resultant will create a roadmap that will identify the existing gaps in the current model. This will support an assessment and recommendation concerning development of a new model. The roadmap will specify what elements the model should be addressing as well as model performance expectations. In the roadmap, Resultant will identify the possible methodologies of a model based on the following factors

- Expected accuracy and precision
- Available data and restrictions
- Performance expectation
- Tech stack availability

**Proof of Concept:** In addition to the roadmap, from our experience, it is beneficial to provide a concrete example for model building. We plan to develop a proof-of-concept model that can address one or more gaps in the previous model as identified in the assessment.

#### Model Development

For model development, we will take the following steps to ensure any recommended changes are rigorously developed, align with best practices, and conform to applicable legal requirements. These steps include the following:

**Exploratory Analysis:** In this step we will analyze the available data used in the previous model and additional available data in UI and RESEA. These data sources will be carefully reviewed for specific patterns and anomalies.

**Small Scale Predictive Model Building:** In this step we will leverage predictive machine learning-based models such as regression, random forest, deep learning, and time-series to create predictions of benefits exhaustion. From historical data we can simulate the accuracy and precision of these models compared to the existing model.

**Backtesting:** Leveraging the historical data, we will do backtesting to compare and identify which models for accuracy and precision. This work will also involve examining and identifying the assumptions that impact model performance compared to the previous model.

#### Revisiting External Research

Resultant's draft model will incorporate external research and conform with identified best practices. Critically, Resultant will ensure the model is compliant with applicable federal and state statutes and regulations as well as USDOL guidance. By revisiting external research content, our team will confirm that model revisions and recommendations undergo a final round of review and quality control.



## WorkForce WV Collaboration and Feedback

Resultant will review the draft model with the WorkForce WV project team to ensure accuracy and completeness. Resultant will take an iterative approach to drafting an evaluation model. This iterative approach will allow the WorkForce WV project team up to two review cycles before the is finalized and approved. Once Resultant has received feedback and made, necessary revisions we will finalize a clear and concise visual representation of the model.

### Phase 4: Final Report

The project team will create a RESEA WPRS model evaluation report, with feedback and input from the WorkForce WV project team, intended to articulate the answers to the research questions and determine the efficacy of the WorkForce WV RESEA claimant selection model. Critically, this report will provide recommendations for changes to improve model alignment with WorkForce WV's goals for the Benefit Exhaustion Calculation model. These recommendations will be provided with detailed, actionable descriptions.

Our team will collaborate with WorkForce WV's project team to align the configuration, format, and structure of the report with expectations. The final report and any corresponding deliverables will be provided to WorkForce WV by September 30<sup>th</sup>, 2024.

## APPROACH AND METHODOLOGY TO COMPLIANCE WITH MANDATORY PROJECT REQUIREMENTS

Please see preceding response in section 4.2.1. for full response.

## Qualifications and Experience

### QUALIFICATIONS AND EXPERIENCE INFORMATION

Resultant's technical depth, empathetic approach, and client focus have positioned us as a trusted advisor our clients can count on. Expertise in technology, data, and project management consulting, including specific experience with strategic data consulting, helps us provide game-changing solutions for organizations. Our team of sought-after thought leaders and technology experts has significant experience working in data and enterprise IT with the public sector and not-for-profit organizations. Resultant has engaged in these sectors for services including, but not limited to data analysis and research, predictive analytics, data strategy and assessment; data solution implementation; platform architecture and re-architecture design and implementation; Microsoft Power BI and Tableau implementations; systems modernization; and the application of advanced data analysis.

With respect to the services requested, our professionals are prepared to bring direct, relevant, and specific expertise in assessing data landscapes, collaborating with key stakeholders to build and deliver data strategy, and business analysis and fraud expertise to formulate solution roadmaps.

Specifically, our skilled areas of service include, but are not limited to:





**Data Analysis**

- Predictive analytics
- Data pattern recognition
- Analytical skill sets
- Advanced analytics including machine learning
- Statistical modeling
- Visualization
- Big Data expertise
- Anomaly detection
- Exploratory analytics
- Programming and automation

**Business Support Services**

- Leadership
- Business process analysis
- Management
- Training
- Development
- Advocacy
- Policy change and implementation

**Project Delivery**

- Project assurance
- Program assessment and analysis
- Project management
- Solution integration
- Tool and process management

Much of Resultant’s core business is built on delivering exceptional service in the data assessment framework arena. Specifically, we focus on our ability to assess and improve the data landscape, build data strategy, then build and implement solution roadmaps. We are adept at delivering on time and on budget. Below we have included examples related to projects, grouped by projects harnessing unemployment compensation data and projects with relevant data science work.

**EXPERIENCE WITH STATE AGENCIES, WORKFORCE DEVELOPMENT ORGANIZATIONS, AND DEPARTMENT OF LABOR**

Resultant has experience with many organizations in the workforce ecosystem, including state agencies, workforce boards, community colleges, and non-profit organizations. In addition to the list below, we have extensive experience with state education, health, and public safety agencies. A sampling of projects is provided below.

CLIENT	ORGANIZATION TYPE	PROJECT NAME(S)
<b>TechPoint</b>	<ul style="list-style-type: none"> <li>• Workforce &amp; Economic Development Non-Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Xtern Program Outcomes Evaluation</li> </ul>
<b>Orr Fellowship</b>	<ul style="list-style-type: none"> <li>• Workforce Non-Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Career Velocity Study</li> </ul>
<b>Indiana Chamber of Commerce   Institute for Workforce Excellence</b>	Workforce & Economic Development Non-Profit	<ul style="list-style-type: none"> <li>• Talent Resource Navigator</li> <li>• Work-Based Learning Supply + Demand Study</li> </ul>
<b>Central Indiana Corporate Partnership</b>	<ul style="list-style-type: none"> <li>• Workforce &amp; Economic Development Non-Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Data Strategy Assessment</li> <li>• Catapult Program Assessment</li> </ul>
<b>United Way of Central Indiana</b>	<ul style="list-style-type: none"> <li>• Workforce &amp; Economic Development Non-Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Impact Reporting Solution Leveraging Data</li> </ul>
<b>Florida Commerce</b>	<ul style="list-style-type: none"> <li>• State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>• Workforce Program Return-on-Investment Study</li> </ul>
<b>Indiana Department of Workforce Development</b>	<ul style="list-style-type: none"> <li>• State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>• Workforce Recommendation Engine</li> <li>• Equity Grant Plain Language Assessment</li> <li>• Data Warehouse Strategy</li> </ul>



CLIENT	ORGANIZATION TYPE	PROJECT NAME(S)
		<ul style="list-style-type: none"> <li>Unemployment Insurance Modernization</li> </ul>
<b>Ohio Department of Jobs and Family Services</b>	<ul style="list-style-type: none"> <li>State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>Contact Center Support</li> </ul>
<b>Oregon Employment Department</b>	<ul style="list-style-type: none"> <li>State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>Unemployment Insurance Technology and Data Assessment</li> </ul>
<b>Ivy Tech Community College</b>	<ul style="list-style-type: none"> <li>Community College</li> </ul>	<ul style="list-style-type: none"> <li>Career Coach and Employer Connections Data Solution</li> <li>ROI Valuation Expansion</li> </ul>
<b>EmployIndy (Region 12 Workforce Board)</b>	<ul style="list-style-type: none"> <li>Workforce Board</li> </ul>	<ul style="list-style-type: none"> <li>Data Assessment</li> </ul>
<b>Regional Opportunities Initiative (ROI)</b>	<ul style="list-style-type: none"> <li>Workforce &amp; Economic Development Non-Profit</li> </ul>	<ul style="list-style-type: none"> <li>READI Support &amp; Strategic Services</li> <li>Uplands Work and Learn</li> </ul>
<b>Vermont Department of Labor</b>	<ul style="list-style-type: none"> <li>State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>Unemployment Insurance Fraud and Overpayment Review</li> </ul>
<b>Missouri Department of Higher Education and Workforce Development</b>	<ul style="list-style-type: none"> <li>State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>P20W Data System Assessment</li> </ul>
<b>Nevada Department of Employment, Training, &amp; Rehabilitation</b>	<ul style="list-style-type: none"> <li>State Workforce Agency</li> </ul>	<ul style="list-style-type: none"> <li>Organizational Assessment</li> </ul>

## UNEMPLOYMENT COMPENSATION DATA SCIENCE EXPERIENCE

### Indiana Department of Workforce Development | Workforce Recommendation Engine (WRE)

The Workforce Recommendation Engine (WRE) delivers personalized occupation recommendations leveraging data that states collect in daily operations, including statewide longitudinal data systems (SLDS) data and workforce/UI data. We use artificial intelligence and machine learning to provide personalized recommendations based on information and characteristics we know about the individual (i.e., previous occupation, previous industry experience, previous wage, and educational information), information about the local job market, and information regarding actual experience outcomes with persons like the individual. After the data has been linked together and deidentified, we run the data through our algorithm which identifies similarly situated individuals through matching personas with relevant measures of occupational outcomes and based on that it provides users with their top suggested career occupations and associated training pathways.

The WRE is the first of its kind in the nation. This large-scale data science and application development project required our project team to work with multiple agencies from various Indiana agencies, including the Indiana Department of Education, Commission for Higher Education, and the Indiana Department of Workforce Development and perform record linkage alongside the Management Performance Hub (MPH). The Indiana Office of Technology was also a critical partner in this implementation. After the data has been linked together and deidentified, we will take specific features of the individual (i.e. their education level, wage data, and previous job experience) and run it through our algorithm that identifies similarly situated individuals through matching personas with relevant measures of occupational outcomes and based on that it provides users with their top suggested career occupations and associated training pathways.



In total, claimants receive 15 recommendations and provide the following information to the user so that they can make an informed decision.

- Occupation name
- Occupation description
- Associated trainings
- Median wage
- Job demand forecast
- Number of job openings
- Training program completion percentage
- Training duration

Each user receives a single top ranked recommendation based on specific factors such as outcomes of similar individuals, job openings or median wage. However, the user will have the ability to rank and sort the remaining 14 recommendations based on their own preferences (i.e., training duration, wages, number of job openings). As they go through each recommendation, the WRE will compare the information to the top ranked one.

Users can also provide feedback in the form of yes, no, or maybe and they will then be able to select a prepopulated reason explaining why. For instance, someone may have chosen not to make a recommendation because the training duration was too long. If users select yes, they will be taken to Indiana Career Explorer in a separate tab to a prefiltered search for the job occupation that they selected yes on. Once an individual has provided feedback on all their recommendations, we will collect and store that data so it can be used to improve our algorithm. This will ensure we provide even better recommendations that are more impactful for users in the future. This will also enable DWD to use longitudinal data to measure outcomes of the tool's usage, gather feedback from job seekers on occupations, and demonstrate talent pipelines.

The use of individuals' real data is what sets this tool apart from anything else in the public or private sector. For example, state workforce agencies are the sole organizations that have access to wage data. The data behind the WRE is what will allow citizens to confidently make informed decisions and pursue occupation pathways that are in demand and fit their interests. The WRE will empower Indiana citizens to make informed workforce decisions and drive positive economic growth and economic mobility.

### **Florida Department of Commerce | Education and Workforce Return on Investment Models**

Resultant is currently working with the Florida Department of Commerce (FL DOC) to develop an Educational and Workforce Return on Investment Model. Both the Workforce and Education ROI models will make statistically valid assessments of the observed outcomes of program participation compared to a baseline expectation of the same individuals' economic outcomes had they not participated in the program of interest. The results of the ROI models will be expressed as the ROI of participation in a program relative to nonparticipation (or other reasonable counterfactual; for example, additional earnings because of participation may be presented as "earnings above expectation" or "additional earning."

Our project team is building and implementing a tool that FL DOC can leverage on an ongoing basis. Delivery of this tool will include a user manual and a summary analysis of the current state of ROI for workforce and education programs. Resultant is also producing streamlined materials such that FL DOC may input or update data, execute the model, and retrieve the ROI results in an easily digestible, reproducible manner. Resultant will provide detailed



guidelines and configurations for the models such that FL DOC will be able to update parameters and methods if necessary.

### **Indiana Department of Workforce Development | Unemployment Insurance Modernization**

Indiana Department of Workforce and Development (DWD) began efforts to modernize its unemployment insurance systems in 2003. However, after eight years of frustration, DWD's modernization efforts were far from completion. In 2011 DWD engaged Resultant to perform Independent Verification and Validation (IV&V) services relative to the services that were being provided by DWD's then-current Project Management Office (PMO) vendor, which provided DWD executives with accurate reporting and transparency into the status of the project.

Resultant established a PMO to support DWD by providing oversight of this large software development modernization project, Uplink. Key personnel from Resultant assisted the agency by developing a strategy to efficiently drive the project to completion. Specific attention was given to project work across domain-specific areas for Uplink, reviewing the solution design and identifying the most effective approach to pursue for a successful implementation. Our team developed dashboards and established metrics that accurately depicted the status of project efforts, as well as provided insight into the effort left to complete the project.

As an outcome of the positive gains that resulted from Resultant's efforts, DWD terminated its engagement with the existing PMO vendor and engaged Resultant for Project Rescue services. Officially tasked with the successful launch of the Unemployment Insurance Modernization (UIM) system, the Resultant team took immediate action and began interviewing DWD resources to analyze project team members' knowledge, skills, and abilities. Once this analysis was completed, a proactive reorganization of the team went into effect, placing highly capable individuals in the most critical technical roles.

Slightly over one year following the beginning of the Project Rescue engagement, DWD's UIM efforts were completed with the successful launch of Uplink. DWD continues to retain Resultant's Project Management Team to oversee the successful support, maintenance, and enhancement of Uplink so that it continues to deliver the full and intended value to all those utilizing DWD's systems.

### **OTHER RELEVANT STATE AGENCY, WORKFORCE DEVELOPMENT ORGANIZATIONS, AND DEPARTMENT OF LABOR EXPERIENCE**

#### **Indiana Department of Corrections | Reducing Recidivism with Analytics**

Reducing recidivism requires an in-depth look into when specific subgroups of offenders have the greatest likelihood to recidivate, which suite of programs will optimally reduce their risk of returning to prison, and how to equip policymakers with the information they need to make informed decisions and investments. This project started with the State of Indiana asking Resultant to work alongside it in the effort to reduce recidivism in Indiana. The Resultant team (alongside the State) established a plan to apply advanced analytical techniques to cross-agency data, which would in turn provide actionable insights for the State with a much better understanding of state recidivism.

Based on that understanding, a machine learning algorithm and a new tool for the case managers became the top priority. This tool would provide them with all the information they need when making program recommendations for their incarcerated population. This resulted in a dashboard that includes information on the incarcerated person, their charges, past program attendance, and conduct.

Major programs were placed into five common categories: Education, Vocational, Apprenticeship, Cognitive Behavioral, and Substance Related. The model then showed what type of programming was most predictive of a



reduction in recidivism for individuals based on what programming was effective for similar individuals in the past. This information helped case managers identify when programming when recommending programming to individuals.

We leveraged historical data from incarcerated population. The data included demographic information, programming, and background information. We developed a custom algorithm based on inexact matching based treatment control evaluation. The programming data had self-selection bias and we implemented both inexact matching and propensity score-based matching. The data was divided into smaller treatment control groups correcting for self-selection bias and ran statistical testing on each to calculate effect of programming on each sub-population both for treatment and control. The custom algorithm was developed in R and applied on the data in SAP HANA. The results were visualized in the platform SAS visual analytics.

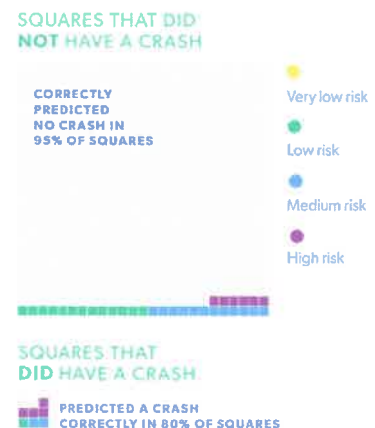
This program identifies the programming that has the highest potential to reduce recidivism for a specific incarcerated person. It provides insights on the types of programming that are predicted to be most effective in reducing the risk of reoffending, as well as highlighting which existing programs have not shown promising results. This tool allows case managers to make more informed decisions about the type of programming that will be most beneficial for everyone, helping to address the needs of the incarcerated population more effectively.

As a result of the pilot program conducted in different types of prisons, including maximum security, general population, and women's facilities, the Indiana Department of Correction expanded the use of the recidivism tool to all case managers in the state. By leveraging data and insights generated by Resultant's tool, the Department is reevaluating the eligibility requirements for each program and making data-driven decisions regarding the allocation of programming and funding. The tool also provides a risk score for each offender, allowing the Department to determine if the projected impact of a program outweighs the associated costs. This approach empowers the Department of Corrections to optimize resources, enhance the effectiveness of programs, and reduce recidivism rates in the state.

### INDIANA STATE POLICE AND MANAGEMENT PERFORMANCE HUB | PREDICT CRASH MAPPING TOOL

Resultant partnered with the Indiana State Police (ISP), the Indiana Department of Transportation (INDOT), and the Management Performance Hub (MPH) to create an interactive web-based map that provides law enforcement and the general public relevant information about where crashes have occurred in the past and where they are more likely to occur in the future. Resultant began by gathering data from multiple sources, including: The Automated Reporting Information Exchange System (ARIES); Average Annual Daily Traffic (AADT) volumes; the U.S. Census and County Business Patterns (CBP); and the U.S. National Grid (USNG) reference system. The data fed into the machine learning algorithm required significant processing. Road segments were clipped to the USNG polygons; latitudes and longitudes of every historical crash location were mapped to a grid using a point-in-polygon technique. Attributes of roads and previous crashes were then summarized for each grid.

The Daily Crash Prediction Map uses data from the past to predict the future. The entire state is divided into one-kilometer squares. The map color codes each square based on the probability of a crash occurring during a three-hour period in the future, similar to a weather map. Users can search for locations, zoom in and out, pan, and change the time range. Each day there are about 500,000 predictions across the state and around 460 crashes; relatively speaking, crashes are rare. Crashes occur in high-risk areas over 100 times more often than very low-risk areas. The



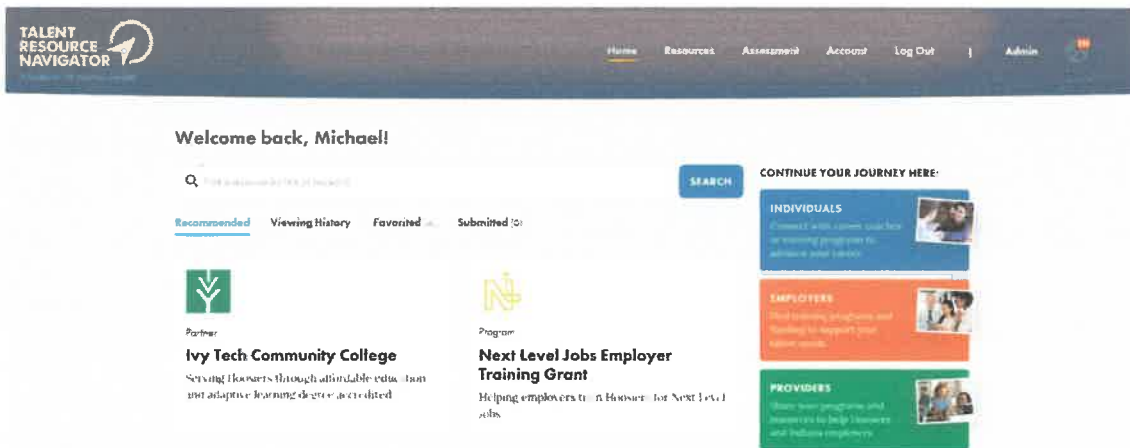


tool's predictions were highly accurate: It correctly predicted crashes that did occur 80% of the time and correctly predicted where and when a crash would not occur 95% of the time.

## INDIANA CHAMBER OF COMMERCE | TALENT RESOURCE NAVIGATOR

After realizing that their member organizations and individuals were unaware of many of Indiana's key talent development programs, the Indiana Chamber of Commerce asked Resultant to assess the statewide workforce ecosystem, identify talent resources, and build a web application called the Talent Resource Navigator (TRN) which intentionally guides users to workforce programming that are relevant to them.

Phase 1 of this project included conducting discovery and planning which required the project team to conduct interviews with the Indiana Chamber staff and their partners and deploying a survey to identify workforce resources and determine the need for a web-based tool to catalog all resources in a user-friendly manner.



The TRN is a free, web-based tool that offers the convenience of one-stop shopping for education and job training opportunities. Supported by on-demand customer service and technical assistance, the TRN intentionally guides and connects individuals and employers with a tailored set of talent development resources based on each user's identified needs. In order to create this product, Resultant had to conduct a landscape analysis of talent development programs across the state of Indiana. Through discovery interviews, research, and a review of Indiana's Eligible Training Provider List, Resultant mapped Indiana's talent development program landscape. Using this information, Resultant populated over 300 resource pages within the TRN. This tool now provides users with a comprehensive list of talent development partners, programs, and promising practices throughout the state.

## INDIANA CHAMBER OF COMMERCE | WORK-BASED LEARNING SUPPLY + DEMAND STUDY

In the summer and fall of 2022 the Resultant team conducted a comprehensive mixed-methods research project concerning the statewide supply and demand for work-based learning (WBL). The goal of the project was to understand how many employers were offering WBL opportunities compared to the demand from students. Legislation was passed in the Indiana General Assembly that now requires Indiana high school students to participate in a work-based, project-based, or service-based learning experience as a graduation requirement. It was generally accepted that WBL was the most desired path for students, however there was not a clear understanding of if student demand for WBL matched the amount of WBL opportunities offered by employers around the state. Our team approached this research question from both a quantitative and qualitative lens. Our research team gathered data from state, federal,



and other WBL partners. Additionally, the team conducted focus groups across the state and gathered input and feedback from educators and employers through surveys.

This effort revealed that WBL is widely considered a critical element of Indiana’s talent development system. However, the analysis also revealed that much of the WBL ecosystem is disconnected, disorganized, and at times contradictory, leading to a system that is complex and difficult for employers, educators, and students to navigate. This dynamic, while challenging, is incredibly important because it demonstrates that with some strategic planning and greater coordination, the state is well-positioned to support a system where every student who wants a WBL opportunity may be able to access it. The final report provided the Chamber with a landscape analysis of best practices and policies from other states, key data findings, opportunities to scale WBL experiences, and actionable recommendations to make WBL experiences more accessible to more students.

### INDIANA COLLEGES AND UNIVERSITIES | PREDICTIVE ANALYTICS FOR STUDENT RETENTION

The average college graduation rate for Indiana Colleges is just over 60%. This means that many students are spending a large amount of time and money to go to college – often going into debt to do so – yet fail to receive a degree and higher paying job to make their efforts worthwhile as they never graduate. For institutions, additional revenue is also left on the table due to the students that drop out or transfer out.

Resultant developed a predictive model identify students at risk of leaving the university to enable early intervention with these students prior to attrition from the university. The model a) outputs a success score for each student, indicating how likely they are to retain at the university on a scale from 0 – 100 and b) highlights the top risk and success factors for each student. We also developed a UI to enable interacting with the results of the model. Student success coaches then work with the model output to work with students at risk of leaving the university as early as possible and to help the students succeed based on an understanding of their individual risk and success factors.

The model and web application are currently live at UIndy, SMWC, and Anderson University. It is has also been rolled out at Martin University, USI, and Indiana Tech in late 2023.

Overall impact to retention metrics at institutions are yet to be determined, but model performance has been measured and shows strong performance as follows.

- *Accuracy* – 96%. The ratio of correct predictions to the total number of predictions made.
- *Recall* – 84%. The ratio of drop-out and transfer students can be explained by the model.
- *Precision* – 86%. The ratio of correctly predicted students who leave the university to the total number of students predicted to leave the university.

### REFERENCES

Resultant is provided two references for projects that are referenced above. Resultant can provide additional references upon request.

NAME + CONTACT INFORMATION	TITLE + ORGANIZATION	PROJECTS
<p><b>Josh Richardson</b>  <a href="mailto:jrichardson@dwd.in.gov">jrichardson@dwd.in.gov</a></p>	<p>Chief of Staff            Indiana Department of Workforce Development</p>	<p>Workforce Recommendation Engine            UI Modernization</p>



**Todd Hurst**

[thurst@indianachamber.com](mailto:thurst@indianachamber.com)

Executive Director

Indiana Chamber of Commerce |  
Institute for Workforce Excellence

Talent Resource Navigator

Work-Based Learning Supply +  
Demand Study

## MANDATORY QUALIFICATION/EXPERIENCE REQUIREMENTS

### RESULTANT'S DEEP EXPERIENCE

Resultant has been in business since 2008, helping public sector clients with data and technology projects for 16 years. Resultant has extensive experience in the workforce space, including working with federal programs and leveraging state data, specifically unemployment and workforce data, to perform analysis on programs and assist agencies with improving business decision making and service delivery that ultimately led to better citizen outcomes. Resultant understands the RESEA theory that unemployed individuals re-enter the workforce at a more rapid rate when provided re-employment services and unemployment insurance requirements are enforced. Resultant is well-positioned to support WorkForce WV in conducting a comprehensive implementation and process evaluation study for their RESEA Program.

Our capabilities are particularly attuned to the goals of the RFP, as follows:

- **System Review and Stakeholder Engagement:** Our strategic execution approach entails a comprehensive system review of program implementation. Resultant excels in stakeholder engagement, drawing upon stakeholder interviews and program data analysis as required to obtain an integrated view of the program's performance and provide actionable recommendations.
- **Empirical and Evidence-Based Approach:** With a rigorous commitment to empirical research and a foundation in implementing evidence-based intervention strategies, Resultant can discern and rate program components for their effectiveness according to federal guidelines and standards set by organizations such as USDOL's CLEAR.
- **Development of Conceptual and Logic Models:** Our team has substantial expertise in creating conceptual or logic models to provide a clear framework that maps a program's theory of change. This expertise ensures that we can visualize and communicate how RESEA's inputs and activities link to desired outcomes.
- **Design and Execution of a Process Evaluation Plan:** We have led process evaluation design plans for various clients, exploring service components, delivery methods, program response to external challenges such as the COVID-19 pandemic, and participant characteristics. Our evaluations include examining the consistency and quality of program delivery, analyzing reemployment outcomes, and comparing program models and outcomes across states.
- **Implementation Study and Evaluability Assessment:** Resultant has extensive experience conducting thorough implementation studies across a myriad of programs. We understand the significance of using evaluation studies as a precursor to more extensive future impact studies. Our team is adept at executing evaluability assessments to determine if a program such as RESEA WPRS is poised and ready for change.
- **Program Comparisons and Recommendation Development:** Leveraging our diverse clientele and project history, we offer insights from a wealth of comparative data which can be instrumental in informing WorkForce





WV's WPRS. Our comprehensive benchmarks against similar program models facilitate data-driven recommendations.

- **Project Management and Reporting:** In line with delivering on the suite of activities outlined in the RFP, Resultant stands ready to manage and report on the project. We know the importance of regular progress reports, risk assessments, and stakeholder communication to keep a project on track.
- **Cross-regional Experience:** Resultant has a strategic presence in key regions across the United States, ensuring familiarity with diverse community needs and experiences that can be leveraged in WorkForce WV's RESEA's goals.

In summary, Resultant brings a combination of strategic insight, technical skill, and empirical rigor to the table, all of which are essential in meeting the WorkForce WV's objectives for evaluating and advancing the effectiveness of the RESEA program. Building upon our demonstrated capabilities and aligned experience with the requirements of the RFP, Resultant is eager to deploy a structured and innovative methodology that capitalizes on our cross-sector expertise.

## PROJECT LEADERSHIP

Chad Timmerman will serve as the project manager for this project. Chad significance experience providing consulting services to workforce, non-profit, and government boards/commissions. Chad also has substantial experience producing, developing, and overseeing data-focused research projects. He is a subject matter expert in workforce, education, and economic development policy with a knack for using data to solve problems and inform solutions. In addition to his consulting experience with both Ascend Indiana and Resultant, Chad had led education policy for the Indiana Governor's Office and was Assistant Director at the Indiana Office of Management and Budget and while there oversaw a portfolio that included workforce, education, and economic development agencies. He holds a Juris Doctor and Master of Public Administration, both from Indiana University.

Sandip Biswas will serve as the lead data scientist for this project. Sandip leads the data science practice in Resultant. Sandip has a Ph.D. in particle physics and brings in strong mathematical and statistical expertise. He has 13+ years of experience in the data analytics industry and 8+ years of providing data science solutions for public sector data projects. In public sector, he has expertise across several verticals such as workforce development, health and human services and education. From a technical perspective, Sandip specializes in predictive analytics, machine learning and algorithm development. In addition to data science Sandip is involved overall solution architecture and has proven track record in scalable solutions development.

Full resumes for Chad and Sandip can be found below.

## CHAD TIMMERMAN | PROJECT MANAGER

### EDUCATION

**Juris Doctor (J.D.)** *Indiana University Robert H. McKinney School of Law*

**Master of Public Administration (M.P.A.)** *Indiana University School of Public and Environmental Affairs*

**Bachelor's Degree, Political Science and Government** *Indiana University, Bloomington*

### CERTIFICATIONS

**Attorney License** *Indiana State Bar (Attorney No: [REDACTED])*



## PROFESSIONAL EXPERIENCE

### **Workforce and Education Return on Investment Study** *Florida Commerce*

- Serviced as Primary Consultant and Engagement Manager for the Workforce and Education ROI project.
- In alignment with the REACH Act (House Bill 1507), partnered with Florida Commerce and Local Workforce Development Boards to collect and analyze data to better understand citizen outcomes.
- Analysis included WIOA programs, Wagner-Peyser, Welfare Transition, and Supplemental Nutrition Assistance Program Employment and Training (SNAP E&T).

### **Education Policy Experience** *Indiana Governor's Office*

- Coordinated strategy development, advocacy, and implementation efforts to realize the Governor's education priorities through legislative, regulatory, and administrative processes.
- Communicated Governor's education policy priorities to the state legislature, interest groups, and key stakeholders through direct dialogue, public testimony, board service, and speaking engagements.
- Absorbed and applied feedback from interest groups, professional associations, legislators, and education-focused constituencies.
- Prepared and advised State Board of Education appointees to understand and advance shared policy objectives.

### **Central Indiana Rapid Reemployment Response Initiative** *Ascend Indiana and EmployIndy (Region 12 Workforce Board)*

- Lead efforts to partner with Indiana Department of Workforce Development (DWD) to access unemployment insurance claimant information to facilitate targeted outreach efforts and support services offered by Ascend Indiana and EmployIndy.
- Drafted written summaries and graphic visuals for project stakeholders concerning unemployment insurance data flows, data classifications, entity access, and corresponding legal requirements.
- Developed written summaries of federal/state statute and agency-level rules applicable to unemployment insurance data by stage, including claimant application, eligibility determination, reemployment servicing, and intra-agency sharing.
- Negotiated, developed, and executed multiple data sharing agreements with the Indiana DWD and program administrators to ensure regulatory and system-level compliance.
- Collaborated with Indiana DWD legal counsel to ensure mutual understanding and agreement on data sharing processes, compliance, and reporting.

### **Ascend Indiana Talent Pipeline Development Program (ARPA SLFRF)** *Ascend Indiana and EmployIndy (Region 12 Workforce Board)*

- Led ARPA grant application and development process efforts for Ascend Indiana and EmployIndy partnership to support co-developed (employer and higher education) postsecondary pathway and work-based learning experiences.
- Provided data and regulatory analysis to ensure partnership activity aligned with grant eligibility requirements.

## LABOR MARKET AND TALENT RESEARCH EXPERIENCE

### **Research and Content Development**

- *Indiana's Evolving Labor Market Full Report* (Ascend Indiana) | [Full Report](#) and [Interactive Data Visualization](#)
- *Seismic Shifts in the Talent Landscape: 2023 TechPoint Indiana Tech Workforce Report* (Techpoint) | [Full Report](#) and [Interactive Visualizations](#)
- *Racial Gaps in the Education-to-Workforce Pipeline and Indiana's Opportunity to Close Them* (Business Equity for Indy) | [Full Report](#) and [Interactive Visualizations](#)
- *Indiana School Pandemic Aid & Funding Policy Overview* (Eli Lilly Foundation) | [Interactive Visualizations](#)

### **Research Oversight and Advisement**

*Pathways to Good and Promising Jobs in Metro Indianapolis* (Ascend Indiana, EmployIndy) | [Full Report](#)

*Advancing Opportunity in Central Indiana* (Central Indiana Corporate Partnership) | [Full Report](#)



*Aligning the Workforce: Labor Market Demand and the Supply of Talent in Indiana* (Ascend Indiana) | [Full Report](#)

## PROFESSIONAL EXPERIENCE

**Sr. Consultant, Workforce and Economic Development** Resultant | 2023 - Present

**Vice President of Public Policy and Research** Ascend Indiana | 2017-2023

**Director of Education Policy** Indiana Governor's Office | 2015—2016

**Assistant Director (Workforce Development, Education, Economic Development)** Indiana State Budget Agency | 2011—2015

## SANDIP BISWAS | LEAD DATA SCIENTIST

Sandip is a Data Scientist Team Lead with Resultant. In this role, Sandip applies his expertise in quantitative analysis and computing to analyze, understand, and transform data for Resultant clients.

With a mathematical and statistical background, Sandip holds expertise in data analysis, machine learning, data visualization, application development, analytical models, and regression analysis. A problem solver at heart, Sandip is a highly cited physics researcher and has aided in efficient analytical and computational work in academia and across industries.

Sandip has delivered 20+ projects leveraging data mining, statistical analysis, and machine learning techniques as primary individual contributor. He has developed research plans and POCs to solve complex business problems for clients. As a team lead, he has partnered with business stakeholders to develop use cases and scope of analytics solutions. Furthermore, he has been able to mentor and train junior data scientists.

## Education

Ph.D., Physics, University of Hawaii

M.S., Physics, Indian Institute of Technology, Kanpur

B.S., Physics, University of Calcutta

## Project Experience

### Data Scientist

*Resultant | 2015-2017*

### Technology Lead

*Allstate | 2011-2015*

### Consultant

*Remote Tiger Inc. | 2011*



## ASSUMPTIONS AND EXCEPTIONS

### Assumptions

- This project will depend significantly upon the stakeholders and subject matter experts within organization and the ability for team members to have reasonable and prompt access to stakeholders, data resources, organization staff, and third-party vendor staff as applicable.
- The organization will provide working papers and project documentation requested by Resultant within a timely manner (typically 2-3 business days) to support the project.
- Resultant will define and estimate any additional work effort requested by the organization prior to commencement of new or additional work. Once Resultant submits an estimate for additional work, the organization will have five (5) business days to review and approve the additional work.
- This engagement will not lead to Resultant providing legal advice, legal opinion, or attestation of the state of security within the environment.
- Budget and new agency legislative and/or policy decisions may affect this plan. If significant changes occur, the timeline and effort could be affected.
- The organization is responsible for transferring data for our analysis
- In the event that a staffing change occurs during the project, the replacement team member will have comparable experience in their area of expertise. Resultant closely monitors resource allocation across the organization, and we have processes in place to respond to unforeseen instances in the event a staffing change occurs. Given the size of our organization, we have a deep pool of experts from which to pull. In the unlikely event that a change may occur, Resultant will be sure to communicate with the project team.

### Execptions

- Payment: We cannot agree to accept payment by P-Card
- Indemnification: We only agree to indemnify for claims resulting from a third party if that party is acting as our agent, no any party performing in any connection to the contract; we will only agree to indemnify for claims/losses brought by third parties.
- Request limitation of damages and liability cap at two times total contract value