Indiana Family and Social Services Administration
Bureau of Rehabilitation Services

Employment Services Model Evaluation - Quarterly Findings Report

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I. PURPOSE

The purpose of this effort is to provide the Indiana Bureau of Rehabilitation Services (BRS) an examination and analysis of the state’s Vocational Rehabilitation (VR) Employment Services Model (ESM). Specifically, BRS seeks to understand whether ESM, which was only recently implemented on July 1, 2015, is having a positive impact on service delivery and if it is achieving key programmatic goals.

This report is one installment in a series of program evaluation reports to be produced quarterly by Public Consulting Group in partnership with BRS. Each report will analyze elements of ESM and address programmatic questions such as:

- What elements of service delivery lead to positive employment outcomes?
- Are there differences across certain populations that can be identified in order to better inform policy and practice?
- Are services being individualized to best suit the needs and strengths of each consumer?

This report measures key baseline elements that cover a broad range of VR statistics, including hourly wages, weekly hours worked, and successful case closure rate, among others. Also included in this analysis is baseline information related to the Results-Based Funding model, ESM’s predecessor. Although few conclusions can be drawn at this time due to the fact that ESM is still in its infancy, the data results presented in the following sections provide BRS with a foundation of knowledge on which to build upon in the coming months and years.
II. BACKGROUND

As of 2010, nearly 19% of Americans live with a disability\(^1\). At 11.1%, individuals with disabilities have disproportionately high rates of unemployment relative to their peers without disabilities\(^2\). In addition, earned wages are 37% less on average, and in some states, even more, with the pay gap widening as educational attainment increases\(^3\). The differences in earned income impact not only individuals, but their families which often must support them, as well as the state and federal government that provides support in the form of various benefit programs. Workers with disabilities are more likely to be employed part-time, and largely in the service industries, as well as transportation and production. Individuals with disabilities are likelier to face persistent poverty compared to those without disabilities. Individuals with a disability often face barriers to employment, including mismatches between skill and their job, discrimination, and lack of job readiness. As of July 2016, approximately 20.4% of the workforce are individuals with disabilities\(^4\).

The goal of vocational rehabilitation services is to assist individuals with disabilities in gaining meaningful employment. Vocational rehabilitation programs are funded by federal dollars as well as state dollars through the Rehabilitation Act, as amended by the Workforce Innovation and Opportunity Act (WIOA). Vocational Rehabilitation works directly with individuals with physical or mental impairments to address the challenges they may face in the modern workplace, through authorizing a wide range of services and supports\(^5\). These services include job coaching, vocational assessment, training, assessing worksite accommodations, assistive technology, among other services. State vocational rehabilitation programs also assist in job placement of individuals with disabilities by developing relationships with local businesses.

The passage of WIOA introduced new requirements to how services are offered and how success is measured in vocational rehabilitation programming. In an effort to create accountability to job seekers and tax payers, WIOA emphasizes performance measures and stresses that agencies make data informed decisions. WIOA creates common performance measures, requires the establishment of primary indicators on attaining skills and credentials, and establishes annual reporting measures\(^6\).

With this context in mind, Indiana BRS is taking the lead in using programmatic data in order to drive policy and promote positive employment outcomes for individuals with disabilities. The recently implemented Employment Services Model, described in the following section, was designed based on an in-depth analysis of consumer needs and service delivery gaps. Moving forward, BRS will further leverage data and information to improve services and programs.

TRANSITION TO EMPLOYMENT SERVICES MODEL

In order to understand the full impact that ESM is intended to achieve, it is important to briefly outline the evolution that the BRS Vocational Rehabilitation program has undergone.

Beginning in 2006, BRS shifted away from hourly-units of service to a structured milestone-based system, known as the Results-Based Funding model (RBF). The idea was simple and rooted in the ever-changing VR landscape: tie provider reimbursements to specific “milestones”, or consumer accomplishments, in order to promote comprehensive and effective service delivery. This in turn would lead to positive employment outcomes for individuals with a disability. Additionally, BRS separated the RBF model into two tiers: one intended for individuals

\(^1\) https://www.census.gov/newsroom/releases/archives/miscellaneous/cb12-134.html
\(^2\) https://www.dol.gov/odep/
\(^4\) https://www.dol.gov/odep/
\(^5\) https://www2.ed.gov/policy/speced/reg/narrative.html
\(^6\) http://www2.ed.gov/about/offices/list/osers/rsa/wioa-meetings-on-final-regs.html
with high needs and multiple barriers to employment (Tier 1), and one intended for individuals that would require less intensive services than those in Tier 1 (Tier 2).

While the implementation of the RBF model was a positive step for Indiana's Vocational Rehabilitation program, it did not entirely accomplish BRS' service delivery goals. For instance, an analysis performed by BRS revealed that providers, in general, were spending less time with consumers during the initial intake stages. This upfront work allows providers to identify consumer strengths, skillsets, barriers to employment, and career goals, and thus lead to positive employment outcomes.

In July 2015, BRS implemented a new service delivery model known as the Employment Services Model (ESM). Commonly referred to as a "hybrid service model" because it contains elements of both the RBF model and hourly units of service, ESM intends to find the balance between service structure and provider flexibility, as well as emphasis on both achievements of outcomes and individualized, high quality services. Furthermore, ESM eliminates the "one size fits all" approach that unintentionally resulted from the milestone-based service structure by allowing providers to tailor their service hours to each individual consumer.

Overall, the purpose of ESM is to:

- Allow for service flexibility;
- Eliminate barriers for individuals with the most significant disabilities to receive appropriate services and supports; and
- Ensure that employment plans are tailored to the unique needs of each consumer served.

One goal of this new model is to re-emphasizes the work at the start of the consumer's journey to employment, referred to in ESM as the "Discovery" phase. There are a number of Discovery services that providers can leverage to better serve their consumers, including Situational Assessment, Work Experiences, and Job Shadowing. Over the coming months and years, BRS will analyze the impact of ESM in order to better inform future policy and practice.

ANALYSIS FRAMEWORK

For clarity, the components outlined below frame the following analysis:

- Consumers are designated as “RBF” or “ESM” based on date of earliest authorization. Consumers whose earliest authorization occurs between July 1, 2006 and June 30, 2015 received the RBF designation. Consumers whose earliest authorization occurs after June 30, 2015 received the ESM designation.

- All results are reported based on the number of cases rather than the unique number of consumers. This is a more accurate representation of the RBF model because it captures consumers that have had multiple cases with BRS with different determination attributes. For example, a consumer might have a severity determination of “non-significant disability” for one case, while another case for the same consumer might reflect a severity determination of “significantly disabled.”

- In some cases, a consumer might receive multiple job placements before case closure. To ensure accuracy, only the most recent hourly wages received and weekly hours worked by a consumer are included.

- Population distributions are categorized based on the primary impairment identified by the VR counselor. The primary impairment categories are condensed for purposes of this report and are as follows: Sensory-Vision, Sensory–Hearing, Physical, Developmental, Mental Illness, and Other. The “Other” category includes individuals who are deaf-blind or with communication barriers.

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7 “Indiana Vocational Rehabilitation Services Manual of Employment Services”
• Severity determination distributions are based on determinations required for federal reporting purposes. The severity determination categories are as follows:
  
  o **Non-Significant Disability (NSD)**: Consumer has a physical or mental impairment that results in a substantial impediment to employment.
  
  o **Significant Disability (SD)**: Consumer has a severe physical or mental impairment that substantially limits one or two functional capacities (communication, interpersonal skills, mobility, self-care, self-direction, work skills, and work tolerance) in terms of an employment outcome and who can be expected to require multiple VR services over an extended period.
  
  o **Most Significant Disability (MSD)**: Consumer has a severe physical or mental impairment that substantially limits three or more functional capacities and who can be expected to require multiple VR services over an extended period.

• Case closure rates are determined using three different case closure codes. Each code is associated with a specific reason for case closure. Cases can be closed for a variety of reasons, including a consumer leaving the program before completion. The case closure categories are as follows:
  
  o **Case Closure – IPE Not Implemented**: Consumer receives a comprehensive Individualized Plan for Employment (IPE) but leaves the system prior to receiving VR services.
  
  o **Case Closure – Not Rehabilitated**: Consumer receives a comprehensive Individualized Plan for Employment but leaves the system prior to achieving employment placement and stabilization.
  
  o **Successful Case Closure**: Consumer is successfully placed in competitive and integrated employment, has achieved stabilization, and has retained employment for at least 90 days.

• Outliers greater than two standard deviations from the mean were removed from the average hourly wage and average weekly hours worked analyses.

### III. RESULTS-BASED FUNDING MODEL FINDINGS

#### POPULATION

The following data results are for consumers served under the Results-Based Funding model. Consumers that received their first service authorization for an RBF service after July 1, 2006 and before June 30, 2015 are included in these results.

Figure 1 displays the percentage of cases based on primary impairment. From July 1, 2006 to June 30, 2015 a total of 40,604 cases received at least one RBF service authorization. Of those, the three largest categories of impairments are Developmental (37%), Mental Illness (36%), and Physical (21%).
HOURLY WAGES AND WEEKLY HOURS WORKED

Figure 2 measures, by population, the average hourly wage a RBF consumer received upon employment placement. The results reveal 22,276 unique cases with placement data that received an average hourly wage of $8.24. The Sensory – Hearing and Sensory – Vision cases achieved the highest average hourly wages at $8.96 and $8.93, respectively. Individuals with a developmental disability, which is also the largest portion of the population as noted above, achieved the lowest average hourly wage at $7.92. This is $.32 less than the overall average hourly wage.

Figure 3 displays the annual average hourly wage achieved by RBF consumers. From 2006 to 2016, the overall average hourly wage increased by $1.30 from $7.39 to $8.69. Even though the RBF model was retired on June 30, 2015, many consumers with active cases at the time of the transition continued to be served under the RBF model. Thus, their average hourly wages counted towards the RBF wage analysis.
Figure 4 measures the average weekly hours worked by consumers upon achieving employment placement. The data reveals 22,040 cases achieved on average 25.8 hours of work per week. Similar to the hourly wage results, Sensory – Vision (28.8 hours) and Sensory – Hearing (29.0 hours) achieved the highest average weekly hours worked. Individuals with developmental disabilities achieved the lowest average weekly hours worked at 24.4 hour per week.

LENGTH OF TIME FROM FIRST AUTHORIZATION TO PLACEMENT

Figure 5 displays the average number of weeks of time from a consumer’s first authorization for an RBF service to when employment placement is achieved. These results reflect any changes or updates to consumer authorizations that may have occurred. For instance, it is common for consumers to receive positive or negative adjustments to their authorized service hours. The date of the earliest authorization was used for this metric since many consumers received multiple authorizations within a single case.

The results reflect 22,137 cases that achieved placement with at least one RBF service authorization. The overall average length of time from the first authorization date to successful placement is 38.3 weeks. The population with the shortest number of weeks to placement are individuals with Mental Illness (33.4 weeks) and the population with the longest number of weeks to placement are individuals with Sensory – Vision impairments (52.7 weeks).

SUCCESSFUL CASE CLOSURE RATE

Figure 6 shows the number of cases in the RBF model that received an employment placement and 90-day stabilization. The case closure rates reflect the proportion of closed cases that received “Successful Case Closure” designation compared to the other non-successful case closure designations.

The successful case closure rates range from 44% (Physical) to 59% percent (Sensory – Hearing). The overall case closure rate for RBF consumers is 49%.
SEVERITY OF DISABILITY

The following table displays a number of metrics based on severity determination, including percent of population, average hourly wages, and average weekly hours worked. Consumers identified as not having a significant disability achieved the highest average hourly wages ($8.87) and weekly hours worked (31.7 hours) but only represent 2% of the population. Those identified as having the most significant disabilities, which represents over half of the population, achieved the lowest average hourly wages ($7.87) and weekly hours worked (23.6).

<table>
<thead>
<tr>
<th>Severity of Disability</th>
<th>Percent of Population*</th>
<th>Average Hourly Wages</th>
<th>Average Weekly Hours Worked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Significant Disability</td>
<td>2 %</td>
<td>$ 8.87</td>
<td>31.7</td>
</tr>
<tr>
<td>Significant Disability</td>
<td>41 %</td>
<td>$ 8.58</td>
<td>28.5</td>
</tr>
<tr>
<td>Most Significant Disability</td>
<td>57 %</td>
<td>$ 7.97</td>
<td>23.6</td>
</tr>
</tbody>
</table>

*Based on number of unique cases.
IV. EMPLOYMENT SERVICES MODEL FINDINGS

POPULATION

BRS implemented the Employment Services Model on July 1, 2015. The following data results are for individuals that received their first service authorization on or after the date of July 1, 2015.

Figure 8 displays the distribution of consumers by primary impairment. There are 3,797 unique consumer cases served under ESM. Of those unique cases, most consumers are individuals with developmental disabilities at 37%, followed by Mental Illness, which comprises 35% of the total consumer population. The ESM population is further analyzed in Figure 9, which displays the distribution of consumers by severity determination. Similar to the RBF results, individuals with the most significant disability represent the majority of the overall ESM population (54.2%).

HOURLY WAGES

Figure 10 displays, by population, the average hourly wage an ESM consumer received upon achieving employment placement. Since ESM went into effect, 1,077 unique cases with placement data received an average hourly wage of $9.00. Individuals with a Sensory – Hearing designation achieved the highest average hourly wages at $10.08. The population with the lowest hourly wages on average was individuals with a developmental disability ($8.71).
These results reflect that individuals with a developmental disability achieved the lowest average hourly wages, while individuals with Sensory-Hearing impairments earned the highest hourly wages. This data also shows that the overall average hourly wage across consumer populations was $9.00.

The average hourly wages are further categorized in Figure 11 by severity determination. Similar to the RBF results, individuals designated as having the most significant disabilities achieve the lowest wages.

**WEEKLY HOURS WORKED**

Figure 12 displays the average weekly hours worked by population. The number of unique ESM cases identified with weekly hours worked is 1,106. The population with the most weekly hours worked on average is Sensory-Hearing, at 26.6 hours per week. The overall average of weekly hours worked across consumer populations is 25.0.

Individuals with a Sensory – Hearing impairment achieved the highest average weekly hours worked, while those with a Development disability achieved the lowest average weekly hours worked. The overall average weekly hours worked across all populations is 25.

**LENGTH OF TIME FROM FIRST AUTHORIZATION TO PLACEMENT**

Figure 13 on the following page displays the length in time from a consumer’s first authorization for an ESM service to the date of placement. The population with the least amount of time between first authorization to placement date is Sensory – Hearing, at 14.84 weeks. Individuals with developmental disabilities experience the longest time from first authorization to placement, at 19.8 weeks.
The overall average between first authorization to placement was 18.9 weeks. It can also be noted that individuals with a developmental disability, which comprises the largest population receiving ESM services, experience the longest amount of time from their first authorization to employment placement. Since the population of closed ESM cases are still relatively small, few conclusions can be drawn at this point in time.

SUCCESSFUL CASE CLOSURE RATE

Figure 14 shows the number of cases in the ESM model that received an employment placement and 90-day stabilization. The case closure rates reflect the proportion of closed cases that received “Successful Case Closure” designation compared to the other non-successful case closure designations. Out of the total ESM population, 635 consumers received a case closure code.

The population with the highest rate of successful case closures are those designated as Other (80%). However, it is important to note that this metric only reflects a total of five cases. Sensory-Vision and Sensory-Hearing populations both have the second highest case closure rate (56%).

TIME SPENT IN DISCOVERY PHASE

The Discovery Phase is the first of four “phases” in ESM. The service is authorized in hourly units and offers providers the flexibility needed to meet the unique needs of VR consumers. The idea behind this approach is to provide a customized and individualized discovery process for each consumer, and to adequately support providers as they get to know their consumer and identify their strengths, career interests, and barriers to employment. Some individuals will receive more authorized Discovery hours than others, depending on their service needs. Future reports will explore whether there is a link between Discovery hours and successful case closure.

Figure 15 on the following page displays the average Discovery hours for cases that have received either a successful or unsuccessful case closure.
Consumers with a disability that fell into the Other category had the longest average time spent in discovery, at 25 hours. As noted above in the case closure results, there are only five cases designated as “Other”. The overall average of Discovery hours received for closed cases is 9.4 hours. It is more likely than not that this average is deflated and will increase in future reports. This is because there are many cases that have still not closed since the implementation of ESM and therefore the increased Discovery hours are not reflected in this graphic.

**INDUSTRY PLACEMENT**

**O*Net Resources**

This report leverages the O*NET data warehouse specifically for the analysis of job category skills, education, and wages.

O*NET is a leading web-based resource sponsored by the Department of Labor for occupation-related information. O*NET collects and analyzes data on occupations, the skills necessary to obtain jobs in specific occupations, average wages, and other occupational information. O*NET uses a framework called the “Content Model” to identify the most important information about work, and integrates this information into a structured system. The online database also contains interactive applications for searching occupations, such as Career One Stop.

**Industry Placement by Job Function**

BRS uses O*NET’s federal job codes to designate a consumer’s employment placement. This job code corresponds to a “Job Family” category. A Job Family is composed of different occupations that require similar skills and expertise. In other words, a Job Family is grouped by job functions. Categorizing consumer employment placements by job functions allows for an easy analysis across multiple industries. For the sake of clarity, any reference to “category” in the remainder of this section will refer directly to the Job Families found in O*NET.

The categories with the largest percentage of consumer placements in ESM are as follows:

- **Production**,
- **Office and Administrative Support**, and
- **Food Preparation and Serving Related**.

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8 The O*NET Content Model
In 2015, the estimated employment opportunities for Production-related jobs occupations in Indiana was 377,510. Similarly, the number of employment opportunities for Office and Administrative Support was 406,130, and 277,960 for Food Preparation and Serving jobs.

Since July 1, 2015, 280 consumers have been placed in occupations designated in the “Production” category. Many of the consumers in this category have the job title of “Helpers-Production Workers”. Production workers perform activities such as supplying or holding materials or tools, cleaning work area or equipment, examining products for quality assurance, and starting equipment. The skills required are minimal, although some occupations may require knowledge of mechanical concepts (maintenance, machines, tools), or some technology. Educational requirements for occupations in this Job Family typically require a high school diploma. Nationally, the average wage for Production Worker occupations is $13.44 hourly, and in the state of Indiana, the average is slightly higher at $16.65. The ESM data reflected an average wage of $9.05 for this category. Projected growth (2014-2024) for Production Worker occupations is expected to see a 4% decline nationally, but is expected to increase in the state of Indiana by 8%.

The second largest Job Family, with 175 consumer placements, is “Office and Administrative support”. An example of a job title received by a consumer is “Office and Administrative Support Workers, All Other”. Other consumers in this job category find employment in occupations such as Stock Clerks, Customer Service Representatives, Receptionists and Information Clerks, and Hotel, Motel, and Resort Desk Clerks. The skills required for these jobs include clerical and administrative duties, and often require moderate on-the-job training. Educational expectations are high school diploma, though some college education is required for certain job titles. The medium wage nationally is $15.67, and $14.45 in the state of Indiana. The ESM data reflected an average wage of $9.23 for this category. Projected growth for Office and Administrative Support occupations is expected to be at 7% nationally and 8% in Indiana.

The third largest category that consumers were placed in is “Food Preparation and Serving Related” Job Family. Most consumers received a “Food Server, Non-restaurant” job title. Activities that are typically performed under this Job Family include serving food to individuals outside of a restaurant environment, such as hotels and residential care facilities, and often have occupations such as “Dietary Assistant”, “Food Service Worker” and “Room Service Server”. The skills required include active listening, speaking, service orientation and monitoring/assessing to make improvements or take corrective action. The educational requirements to obtain a job in this category include less than high school diploma to some college. The average wage nationally for occupations in this Job Family is $9.80 hourly, and $8.85 in Indiana. The ESM data reflected an average wage of $8.29 for this category. Furthermore, career growth is expected to be at 13% nationally, and 16% in Indiana between 2014 and 2024.

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9. OES Dashboard
10. Details Report for: Helpers- Production Workers
11. Summary Report for: Helpers-Production Workers
12. Salary Finder: Production Workers, All Other
13. U.S. Department of Labor
14. Salary Finder: Office and Administrative Support Workers, All Other
15. Occupational Profile: Office and Administrative Support Workers, All Other
16. Summary Report for: Food Servers, Non-restaurant
17. Skills Summary
18. Summary Report for: Food Servers, Non-restaurant
19. Salary Finder
20. Occupation Profile
The figure below compares two data points, **Average Weekly Hours Worked** and **Percent of Consumers Placed by Job Family**. This provides a visual representation of where the majority of consumer are being placed and for how many hours worked per week. Note that the “Production” Job Family has both the largest proportion of consumer placements while also achieving the second highest weekly hours worked. Conversely, the Job Family with the third highest percent of placements is “Food Preparation and Serving Related”, but achieved the lowest average of weekly hours worked.

\*Only the top ten Job Family placements are included in this graphic.*
V. KEY OBSERVATIONS

Since this analysis reflects only 15 months of ESM data, few definitive conclusions can be drawn. As VR services continue to be authorized under ESM, the data set will grow and reveal broader trends and patterns. For now, key observations will drive future analyses and reveal questions for further consideration.

- **Consumers are achieving placement in Job Families with healthy projected industry growth.**

  The occupations which most consumers are being placed in – Production, and Office and Administrative Support, all have projected growth between 4% and 8% in the state of Indiana specifically. Further, Food Preparation and Serving Related jobs, the third highest category for consumer placements, are expected to grow at 16% in Indiana between 2014 and 2024\(^22\).

- **Consumers are achieving placement in Job Families with minimal educational requirements.**

  The data clearly suggests that the occupations in the top three Job Families overwhelmingly require no more than a high school diploma to some college experience. The exception being Food Preparation and Serving Related which requires less than a high school diploma to some college experience. A very small number of consumers are placed in occupations that require a college education or an advanced degree, through Employment Service providers.

- **The transition to the Employment Services Model does not appear to have negatively impacted key performance indicators such as average hourly wages and weekly hours worked.**

  The overall average hourly wage for the RBF model is $8.24 for the years 2006 to 2016. During this period, the year-to-year average hourly wage increased in eight of the ten years. Furthermore, the average hourly wage at the time of the transition to ESM was $8.69. The first 15 months of ESM reveal an average hourly wage of $9.00, representing a 4% increase since the transition.

  Additionally, the overall average weekly hours for ESM appears to have held steady when compared to the ten-year RBF data. The overall average weekly hours worked for RBF was 25.8 hours per week, while the first 15 months of ESM reveal an average weekly hours worked of 25.0.

  Since the sample size of ESM data is limited, especially when compared to the ten years’ worth of RBF data points, definitive conclusions cannot be drawn at this time. However, at a high level, initial performance indicators appear to reveal a smooth transition from RBF to ESM. BRS will continue to monitor ESM data elements and trends in order to understand the model’s impact on employment outcomes.

\(^22\) Occupation Profile
VI. FUTURE ANALYSES

This report is just one installment in a series of program evaluation reports to be produced quarterly by Public Consulting Group in partnership with BRS. As each report builds off its predecessor, BRS will identify areas for further exploration. Based on the key observations to date, the following areas should be considered for future analyses:

- **Supported Employment** – In addition to implementing ESM in July 2015, BRS also modified the way in which Supported Employment hours are authorized. Initial reviews of authorization data reveal that providers have not been fully utilizing this service component. BRS continues to encourage providers to continue supporting consumers beyond placement to ensure employment stabilization. Future reports will monitor supported employment authorizations.

- **Quality of Placement** – The goal of BRS Vocational Rehabilitation Services is “to provide quality individualized services to enhance and support people with disabilities to prepare for, obtain or retain employment.” While there is not a single data point that measures the quality of a consumer’s employment placement, BRS collects a wealth of data that could at least reveal various aspects of “quality”. BRS will continue to explore different methods of measuring quality in order to best serve VR consumers.

- **Trends and patterns over time** – Since ESM was only recently implemented, there are limited data points available for analysis. However, over time the data collected from the ESM model will grow and allow for analyses specifically looking at trends and data patterns. Are average hourly wages earned by consumers increasing, decreasing, or remaining static over time? Are certain metrics (average hourly wages, weekly hours worked, case closure rate, etc.) changing for populations over time? These are just a few questions that could be answered in future reports.
APPENDIX A – CITATIONS


The O*NET Content Model. Retrieved from http://www.onetcenter.org/content.html

