

Post-Incarceration Employment and Economic Opportunity in Virginia 2025-2030

A. Research Objective

The primary objective of this project is to conduct a comprehensive analysis of the geographic and economic landscape facing formerly incarcerated individuals upon their release in the Commonwealth of Virginia. The research will identify the specific regions to which this population returns, analyze the structure of those regional labor markets, and assess the alignment between available "second-chance" employment opportunities and the vocational skills of the returning population.

The project will produce a detailed, data-driven framework to inform policy and workforce development strategies. This includes a five-year projection (2025–2030) of employment trends in key industries and regions to anticipate future challenges and opportunities. The ultimate goal is to identify the systemic barriers and structural mismatches that hinder successful reentry and to provide actionable recommendations for state agencies, economic development organizations, and community service providers.

B. Method

The project will employ a mixed-methods approach, integrating geospatial analysis, econometric forecasting, and qualitative industry assessment to build a multi-layered understanding of the reentry-to-workforce pipeline.

- 1. Geospatial Hotspot and Return Destination Analysis:**
 - Utilize geocoded incarceration data to identify counties and sub-county census tracts with the highest per-capita rates of incarceration. These "hotspots" will serve as a proxy for the primary destinations of returning citizens.
 - Map these high-impact regions against the locations of reentry support services to identify potential "reentry deserts" where services are scarce.
- 2. Comparative Regional Economic Analysis:**
 - For each identified high-impact region, conduct a cross-sectional analysis of key socio-economic indicators (e.g., population, median income, poverty rate, labor force participation, educational attainment).
 - Benchmark these regional profiles against statewide averages to quantify the level of economic distress or dynamism in the communities to which individuals are returning.
- 3. Sectoral Employment and Industry Concentration Analysis:**
 - For each target region, analyze employment data by NAICS code to identify the dominant industry sectors.
 - Compile and analyze lists of the largest public and private employers in each region to determine the concentration of employment opportunities and identify potential systemic barriers (e.g., public sector hiring restrictions for individuals with felony convictions).
- 4. Labor Market Suitability and Opportunity Mapping:**

- Conduct a qualitative assessment to identify industries historically amenable to "second-chance" hiring (e.g., Construction, Manufacturing, Transportation & Warehousing).
 - Synthesize this assessment with the regional industry concentration analysis to create an "Opportunity Matrix." This matrix will map the supply of second-chance friendly jobs against the geographic destinations of the returning population, explicitly identifying areas of high opportunity and significant mismatch.
5. **Economic and Employment Trend Forecasting (2025–2030):**
- Integrate statewide and national econometric forecasts for key industry sectors (Construction, Manufacturing, Logistics, etc.).
 - Apply these macro-level growth and contraction projections to the specific industrial compositions of the identified high-impact regions to develop a five-year outlook for each. This will model the probable widening or narrowing of the geographic opportunity gap over the medium term.

C. Data Sources

- **Incarceration and Reentry Data:** Virginia Department of Corrections (VADOC) population reports; Prison Policy Initiative and New Virginia Majority geocoded incarceration data; Virginia Department of Criminal Justice Services (DCJS) program information.
- **Demographic and Economic Data:** U.S. Census Bureau (American Community Survey 1-Year and 5-Year Estimates, County Business Patterns, QuickFacts); Bureau of Economic Analysis (BEA).
- **Labor Market and Employment Data:** Virginia Employment Commission (VEC) / Virginia Works (Labor Market Information, Quarterly Census of Employment and Wages); U.S. Bureau of Labor Statistics (BLS).
- **Economic Forecasts:** University of Virginia Weldon Cooper Center for Public Service economic forecasts; national construction and manufacturing outlooks (Associated General Contractors of America, ConstructConnect).
- **Regional Economic Development Data:** Virginia Economic Development Partnership (VEDP); Virginia Coalfield Economic Development Authority (VCEDA); InvestSWVA; Richmond EDA; PlanRVA.
- **Occupational and Licensing Data:** Virginia Department of Professional and Occupational Regulation (DPOR).

D. Project Timeline

- **Weeks 1–2:** Data acquisition, cleaning, and establishment of baseline incarceration and demographic datasets for all Virginia counties.
- **Weeks 2–4:** Geospatial analysis to identify high-impact return destinations; development of detailed socio-economic profiles for each target region.
- **Weeks 4–7:** Sectoral employment analysis for target regions; compilation and analysis of major employer data; qualitative assessment of second-chance friendly industries.

- **Weeks 7–9:** Integration of 5-year economic forecasts; modeling of future regional employment trends; synthesis of findings to articulate the core "reentry mismatch."
- **Weeks 9–12:** Drafting of the comprehensive report, creation of data visualizations and tables, and development of strategic policy recommendations.

E. Deliverables

- Comprehensive Research Report
- Notable Employers in Counties and Industries

F. Statistical Techniques

- Regional Analysis
 - Location Quotient
 - $LQ = \frac{\text{Regional Industry Employment} / \text{Total Regional Employment}}{\text{National Industry Employment} / \text{Total National Employment}}$
 - Shift-Share Analysis
 - Break down changes in employment into factors
 - $\text{Total Regional Employment Change} = \text{National Growth Effect} + \text{Industry Mix Effect} + \text{Regional Competitive Effect}$
 - Visually Determine Hotspots
 - Use geospatial cluster analysis if necessary
- Time Series Forecasting
 - ARIMA
 - Autoregressive Integrated Moving Average models will be developed to generate baseline statewide employment projections for key "second-chance" industries. ARIMA models analyze historical employment data to forecast future values by accounting for trends, seasonality, and serial correlation in the data.