Labor Market Intelligence

Using local labor market information to understand and document regional workforce needs that drive NSF ATE and other grant applications

Steven Partridge Vice President, Strategy, Research and Workforce Innovation

Teresa Sweeney Director of Grants

Marisa Lemma Labor Market Intelligence Analyst



NOVA and NSF

During NOVA's history of submitting NSF grants, we have:

- Won 21 grants with a total value of \$7,539,360
- Submitted 9 additional proposals in 2023 with a potential value of \$4,826,297

Among all types of NSF subprograms, the greatest number of proposals submitted and grants awarded have been under ATE (Advanced Technological Education).

LABOR MARKET INTELLIGENCE

Compile, analyze and communicate economic, workforce and demographic data to inform:

Program offerings and curriculum alignment

Career navigation & advising

Advisory board committee membership

Business engagement

Grants and advocacy

Community partnerships

Regional analysis & research



WHAT IS LABOR MARKET INTELLIGENCE (LMI)?



Economic

- Employment by industry, occupation
- Wages, prices, cost of living
- Projected employment growth
- Job openings/postings
 - Employers, occupations, industries, skills, education, etc.
- Unemployment (rates, claims)
- Gross regional product





Education

- Degree awards (regional, national)
- Required levels of education, experience
- Industry-recognized certifications
- Skills and knowledge
- Employment outcomes (NOVA grads, aggregate)

Demographic

- Population demographics (age, sex, race/ethnicity)
- Worker characteristics
- Income and poverty
- Housing
- Migration
- Commuting patterns

LABOR MARKET DATA SOURCES & AVAILABILITY

Federal Sources

- Foundation of all economic & demographic data
- Surveys (employers, workers, households); administrative data
- **Pros:** most accurate; reliable; standardized; public methodology
- **Cons:** delayed/lagged; suppression; less detailed

State Sources

- Informs federal data programs
- Data often offered for more geographies; additional administrative data available
- **Pros:** greater detail; accurate; reliable
- **Cons:** delayed/lagged; suppression; national comparison

Proprietary Sources

- Estimates/imputes missing federal data
- Scrapes/compiles online data like job postings
- Pros: greater detail/frequency; additional types of data; captures "emerging" fields
- Cons: less reliable; less comparable







National Center for Education Statistics



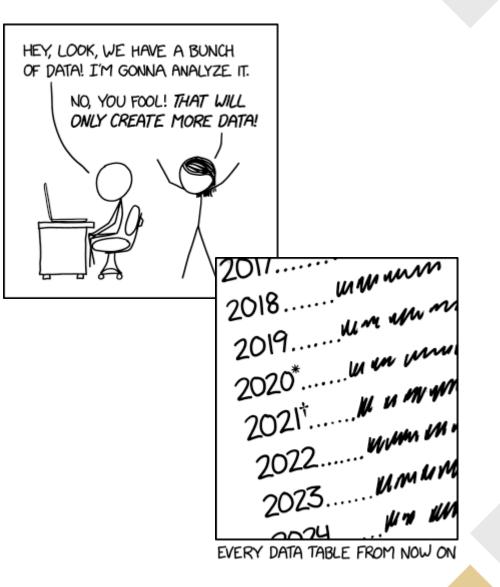




LABOR MARKET DATA SOURCES & AVAILABILITY

GENERAL CONSIDERATIONS

- Tradeoff between accuracy/reliability and detail/timeliness
- Labor market data generalizes, requiring translation to specific industries, jobs, skills, etc.
 - E.g., occupations & industries rarely match reality perfectly
- Most numbers are estimates, and estimates always have a certain amount of error
- Data is never "just the data"—relies on definition and comparison
- Data isn't free good data takes time & effort



NOVA and NSF

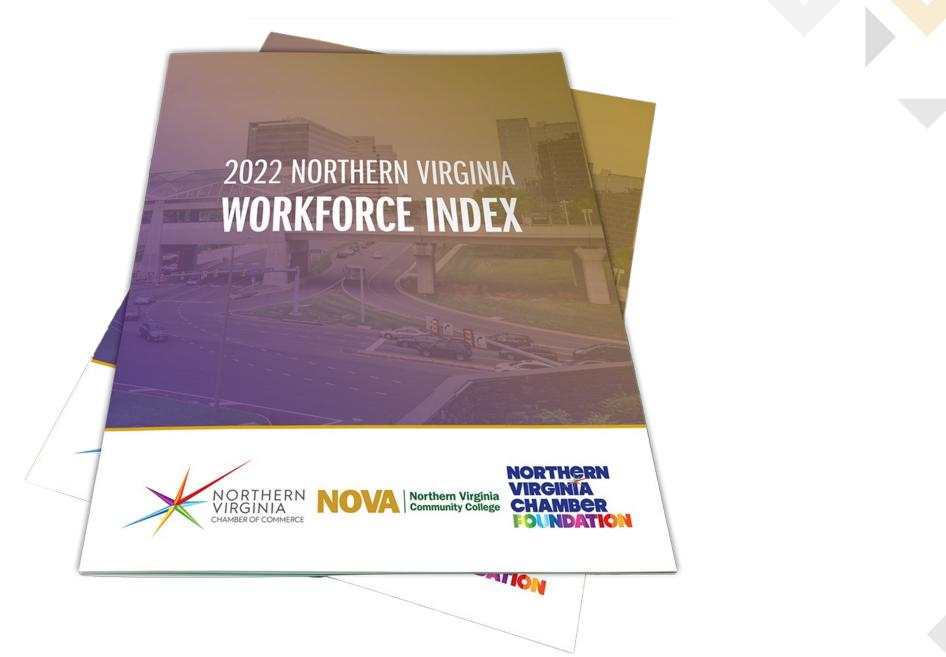
In choosing sources of LMI data to use in proposals, we focus on the following factors:

- Produced within the last 2 years
- Representative of the same or similar geographic region as the area to be served by the project - local, regional, state or a combination
- Representative of the same or similar target populations to be served by the project
- Industry and partner-company specific jobs data related to the LMI data and crossreferenced with NOVA certification and degree programs that are central to the project design and expected improvements or outcomes

NOVA and NSF

"NOVA Biotechnology Leadership in Education (NOBLE)," that started in May 2023 included research and LMI data from several sources as part of its rationale, such as:

- Virginia's biotechnology industry growth, including companies such as Ceres Nanosciences, Orpheus Bioscience, GlaxoSmithkline, Inova Health System
- Regional job statistics for previous 3 years and forecasted job growth/need through 2028 (28% per year) in the life sciences
- Monetary investment in life sciences industry for previous 3 years of \$1.2 billion (Virginia Economic Development Partnership and Virginia Works data)
- Specific biotechnology need and growth sectors (e.g., medical technology and bioinformatics) and how they relate to NOVA degrees/certifications and student data (e.g., demographics, enrollment and completion in our Biotechnology Program offerings)



MAKING IT POSSIBLE: NOVA'S BUSINESS ENGAGEMENT CENTER

NOVA's Business Engagement Center—the first of its kind at a community college in the U.S.—is a **one-stop shop for all industry partnerships and collaborations.**

https://www.nvcc.edu/bec/index.html

Through our **Guaranteed Interviews program**, employers get the first chance to hire our in-demand, highly-valued career pathway grads.

https://www.nvcc.edu/bec/guaranteedinterviews.html



Lessons from Five Colleges:

• Set the Tone and Vision

Leadership Matters at Every Level

- Focus on Regional Industries Understand the Needs—Current and Future—of the Local Economy
- Center Employment Outcomes

Make Connecting Students to Economic Opportunities Mission Critical

Build Deep Partnerships

Shift to Long-Term Relationships with Employers, Away from Short-Term Transactions

