



Statewide College Workforce Report

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MONTANA
UNIVERSITY SYSTEM



Montana Department of
LABOR & INDUSTRY



Statewide Research Questions

1. How do Montana college graduates fare in the Montana labor market?
2. Do Montana colleges produce enough graduates in the right fields to meet statewide demand?
3. How does the geographical distribution of graduates match the distribution of worker demand?



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Who are Montana College Grads?

Graduates from
2001-02 to 2014-15

About 100,000
graduates

About 113,000
degrees

From 18 Montana
Colleges





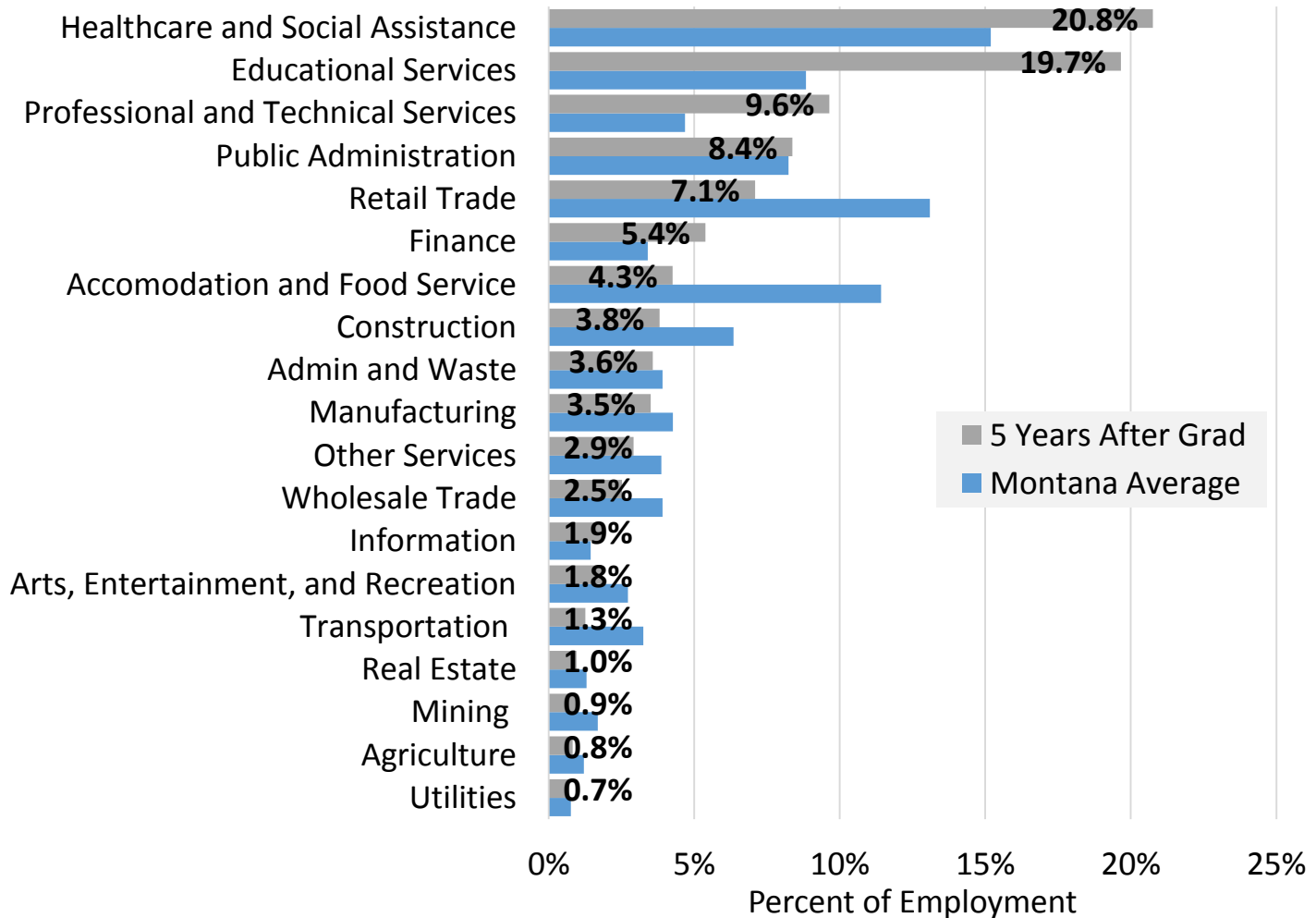
Most Graduates Work in Montana

- 69% of Montana college graduates work in Montana one year after graduation.
- Employment retention rates are highest among:
 - Two-year college graduates (83%)
 - Incumbent workers (86%)
 - Certificate and Associates Degree earners (>80%)
- Graduates from Montana colleges work in every county in the state.



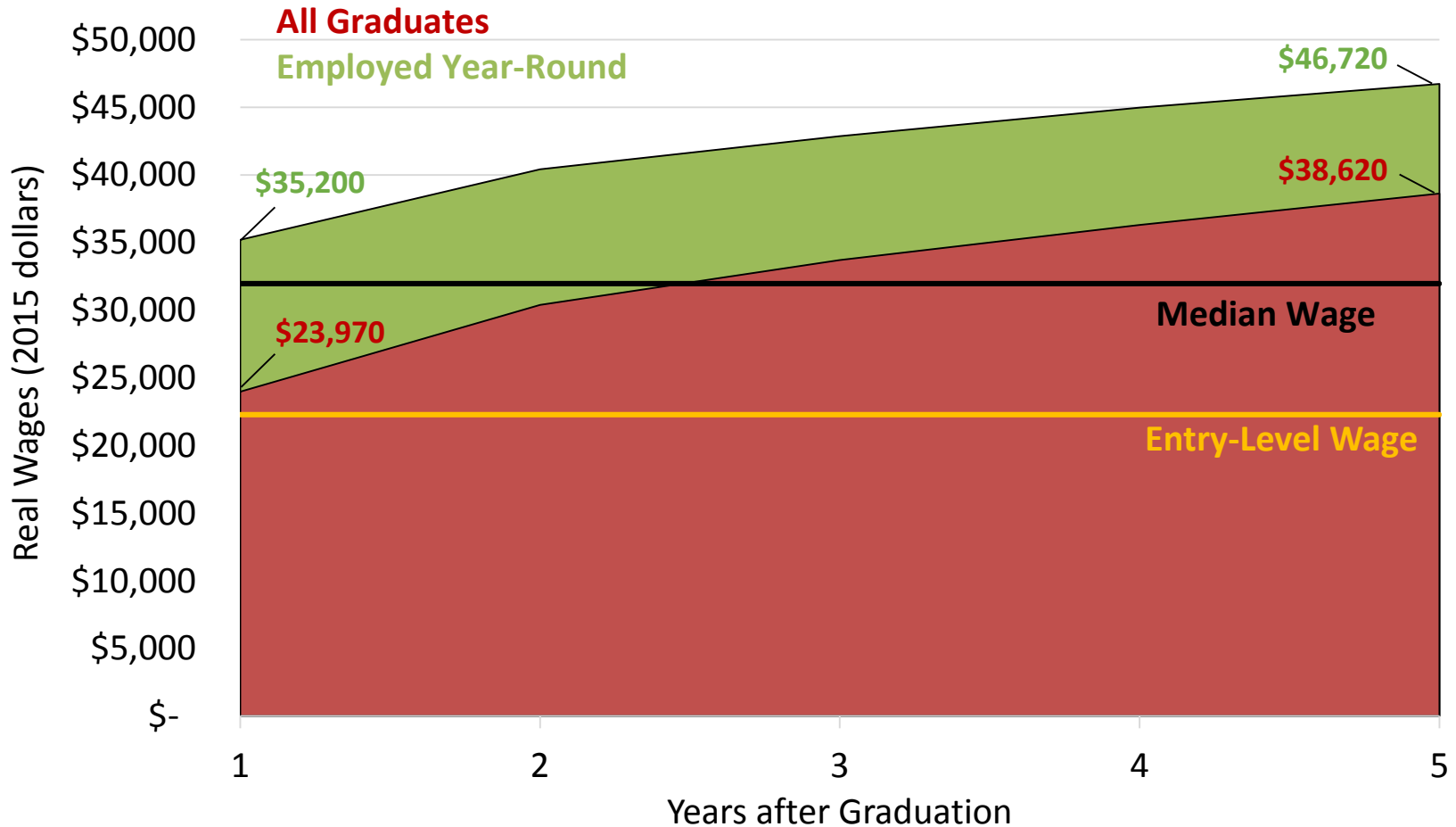
Employment by Industry

Primarily in Healthcare and Education





Graduates Earn Above Median Wages *within Three Years of Graduation*





Higher Wage Earnings Among:

Incumbent Workers

- \$8,000 wage premium one year after graduation.
- Premium decreases to \$6,000 over five years.

Graduates working in high-wage industries

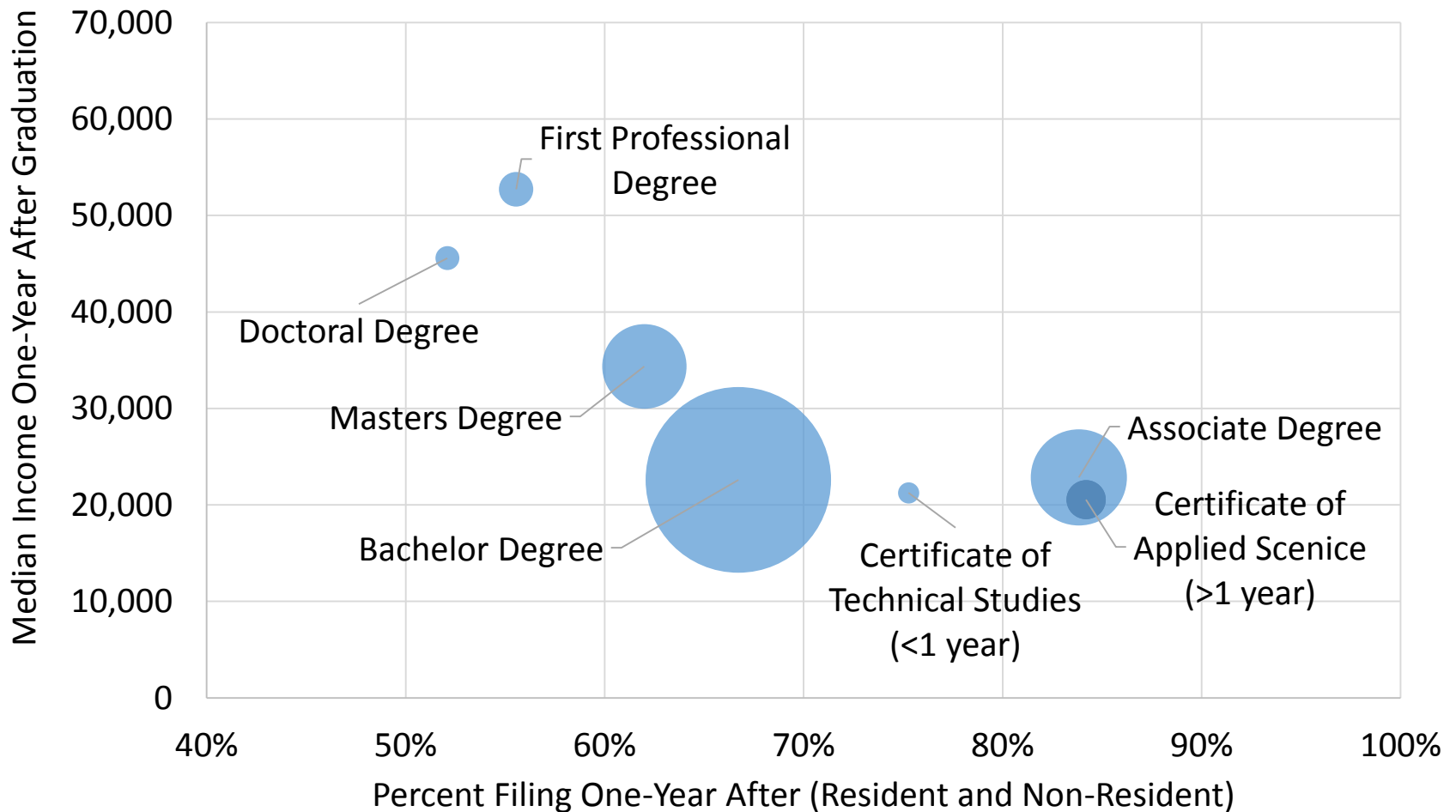
- Ex: Mining and Utilities, Professional Services, Wholesale Trade, Manufacturing, Healthcare

Graduates with more education

- Graduate degrees have the highest wages.
- Exception: Bachelor's degree graduates.



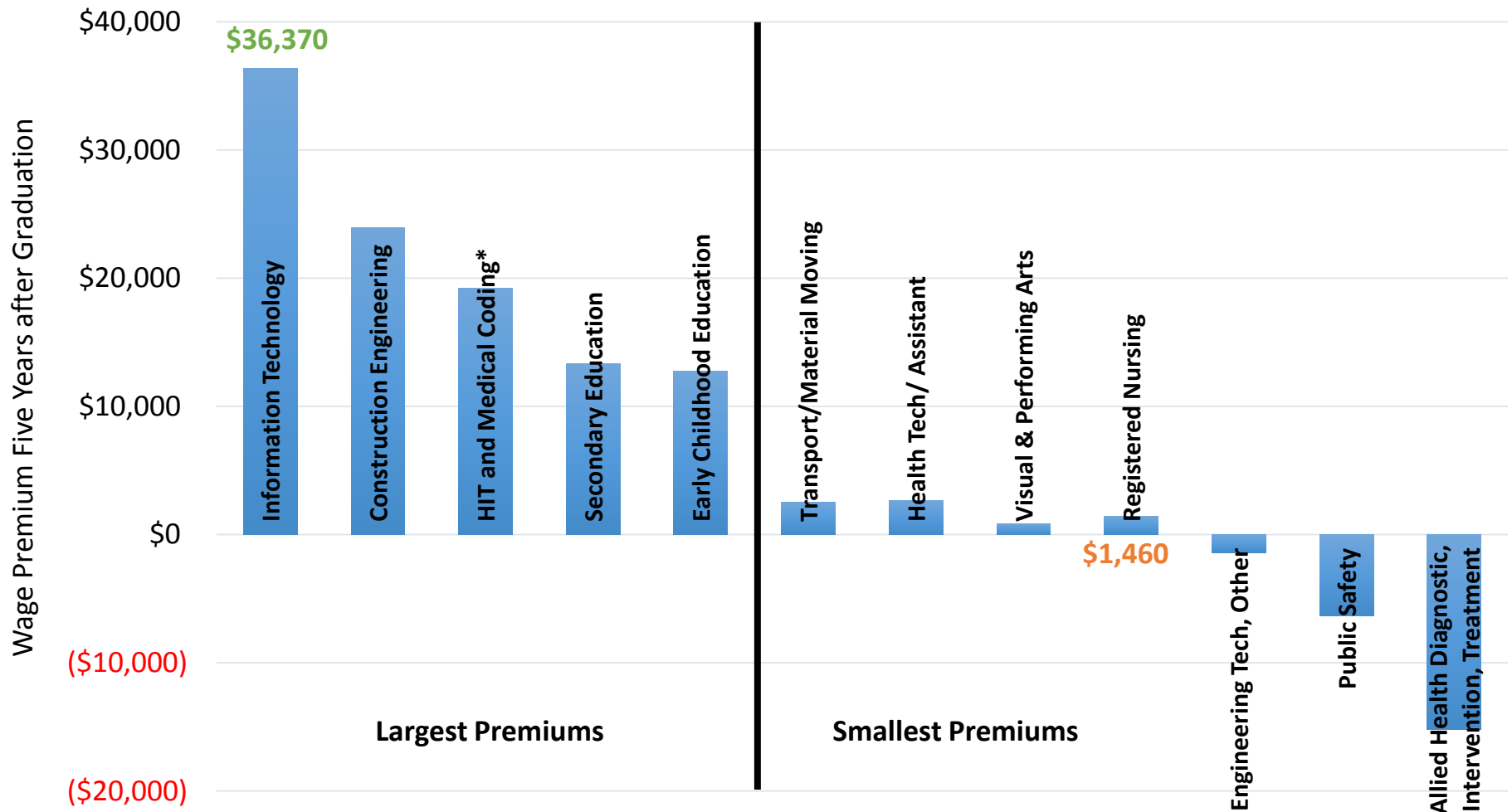
Workforce Outcomes by Degree





Wage Premium for Bachelor's Degree

Five Years After Graduation





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Measuring Worker Demand

- Measured using MT DLI 2015-2025 industry and occupational employment projections.
- Colleges are expected to meet job openings due to growth and retirements, but not exceed total openings.





Supply and Demand Analyses

By Industry

Supply: Average annual number of graduates employed in each industry in last 3 years.

Demand: Annual industry employment growth projections.

By Occupation

Supply: Average annual number of graduates over the last three years who graduate from programs that prepare them to work in the occupation.

Demand: Estimated annual employment growth for high-demand occupations requiring a post-secondary education.

By Program of Study

Supply: Average annual number of graduates from each program over the last 3 years.

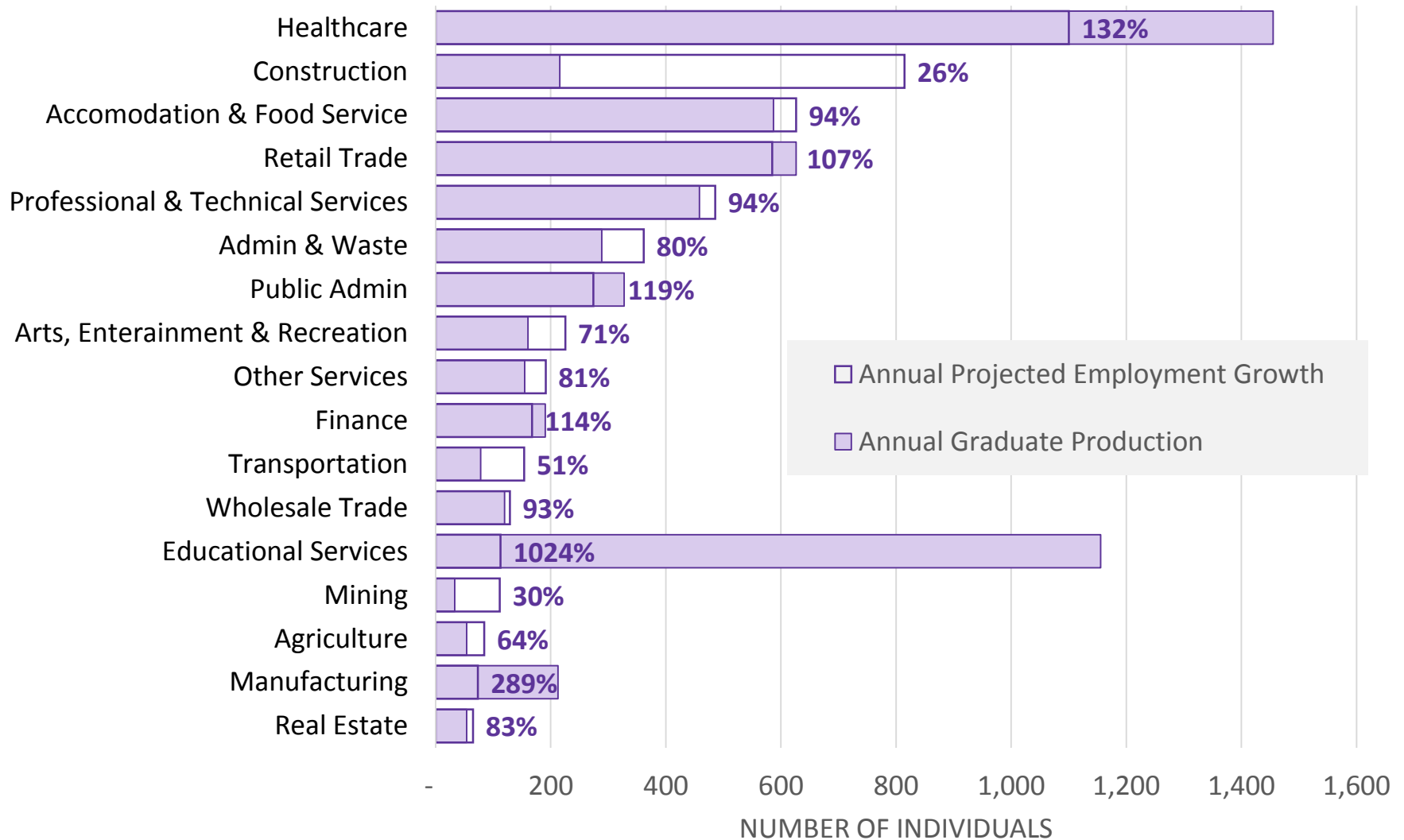
Demand: The sum of estimated annual employment growth for all occupations graduates from a program are qualified to fill.

Workforce Outcomes by Program

Workforce outcomes by program help confirm the conclusions reached in the other three supply and demand analysis. Under-supplied programs should have better outcomes than over-supplied programs.



Supply and Demand by Industry





Supply and Demand by Occupation

Most Job Demand Met by College Capacity

- Colleges meet demand for **67%** of high-demand occupations, but **63%** are oversupplied.
- College don't train graduates for **22%** of high-demand jobs.
 - Mostly high-level healthcare occupations like dentists, veterinarians, occupational therapists, optometrists, etc.
- **10%** of high-demand occupations are undersupplied.

	Number of Occupations	Percent
Under Supplied	10	10.6%
No Program	21	22.3%
Meets Demand	4	4.3%
Over Supplied	59	62.8%





Supply and Demand by Program

Most Programs Meet Demand

	Number of Programs	Percent
Under Supplied	33	34.4%
Meets Demand	9	9.4%
Over Supplied	54	56.3%

- Colleges produce enough graduates in **66%** of programs to meet demand, but **56%** are oversupplied.
 - Oversupplied programs primarily in communication, liberal arts, and social science.
- **34%** of programs are undersupplied.
 - Program expansion candidates: computer & info science, social work, automotive technology, mechanic and repair technology, and HIT and medical coding.

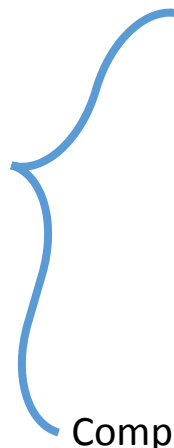


Supply and Demand by Program

for Select Programs

Expansion Candidates

- Jobs require college degree.
- Jobs rely on program to fill openings.

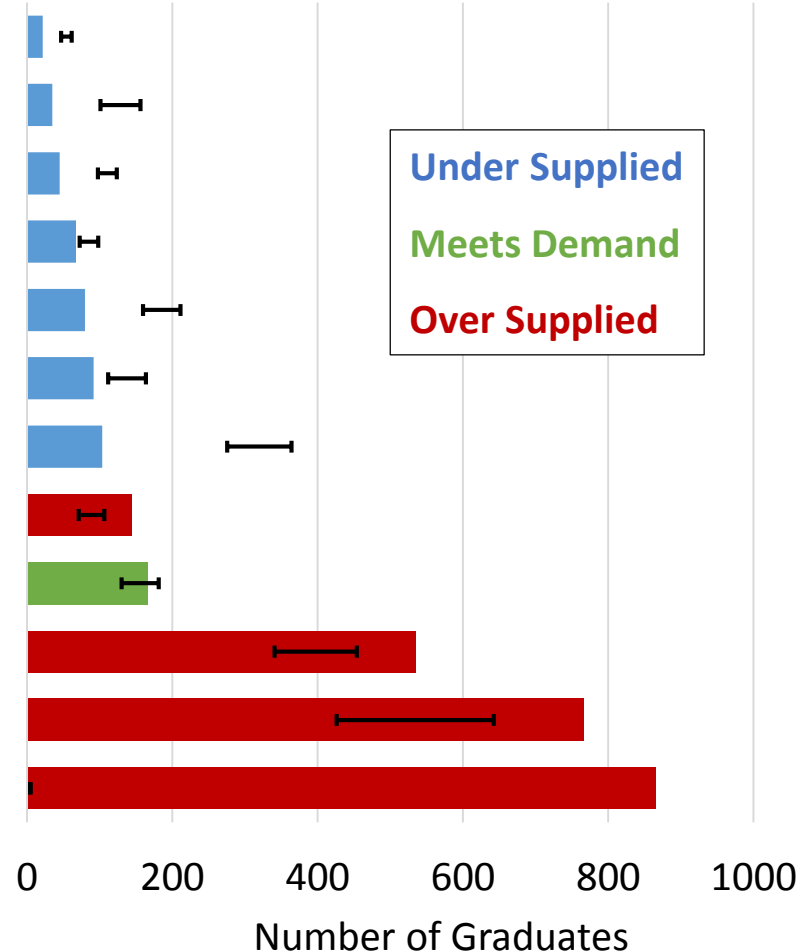


Mechanic Repair Tech
 Automotive Technology
 Information Technology
 HIT and Medical Coding
 Computer Science
 Social Work
 Computer/Info Science, Other

Under Supplied
Meets Demand
Over Supplied

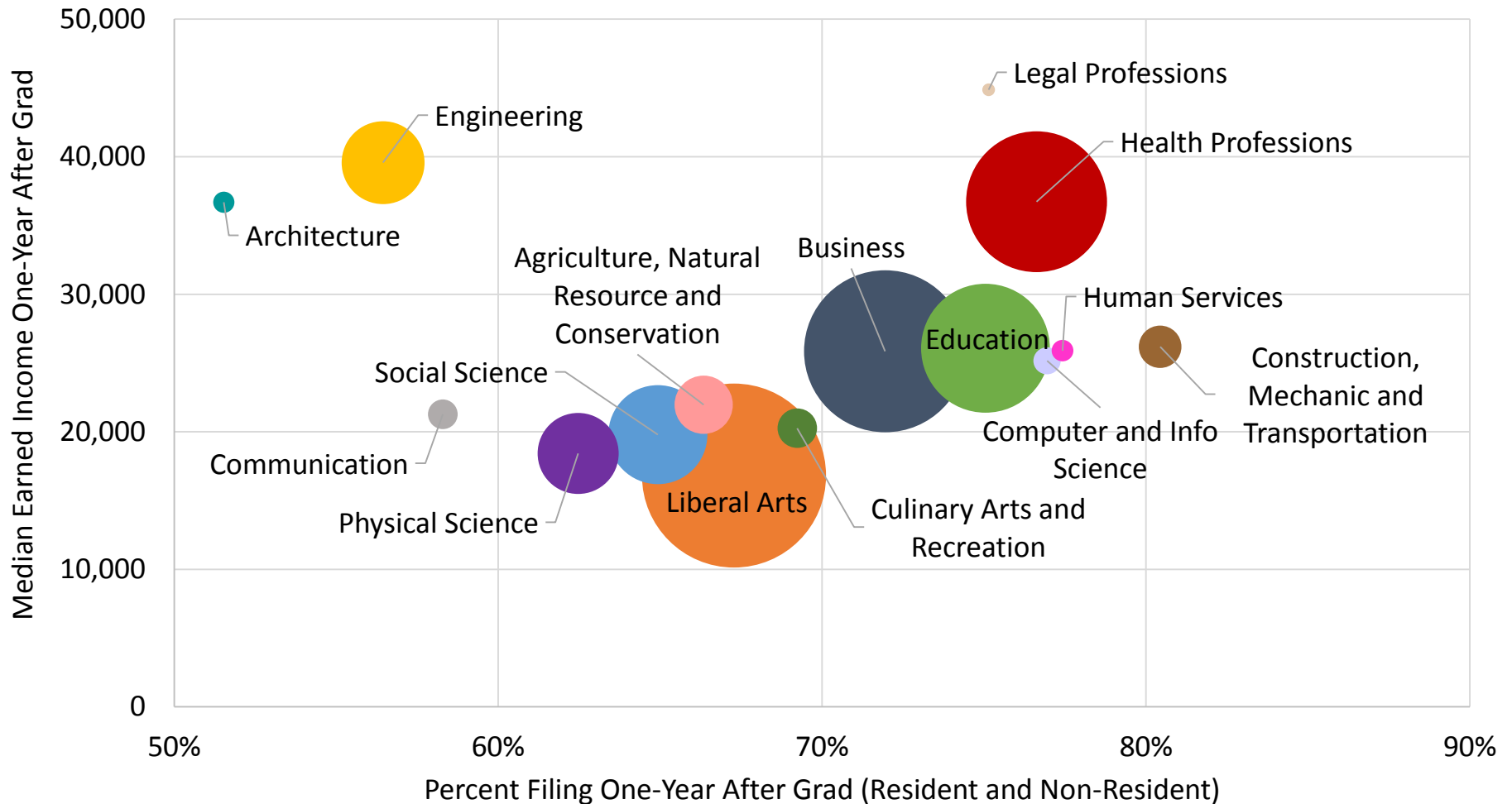
Largest Oversupply →

Practical Nursing
 Accounting
 Registered Nursing
 Business
 General Studies





Workforce Outcomes by Program





Statewide Research Questions

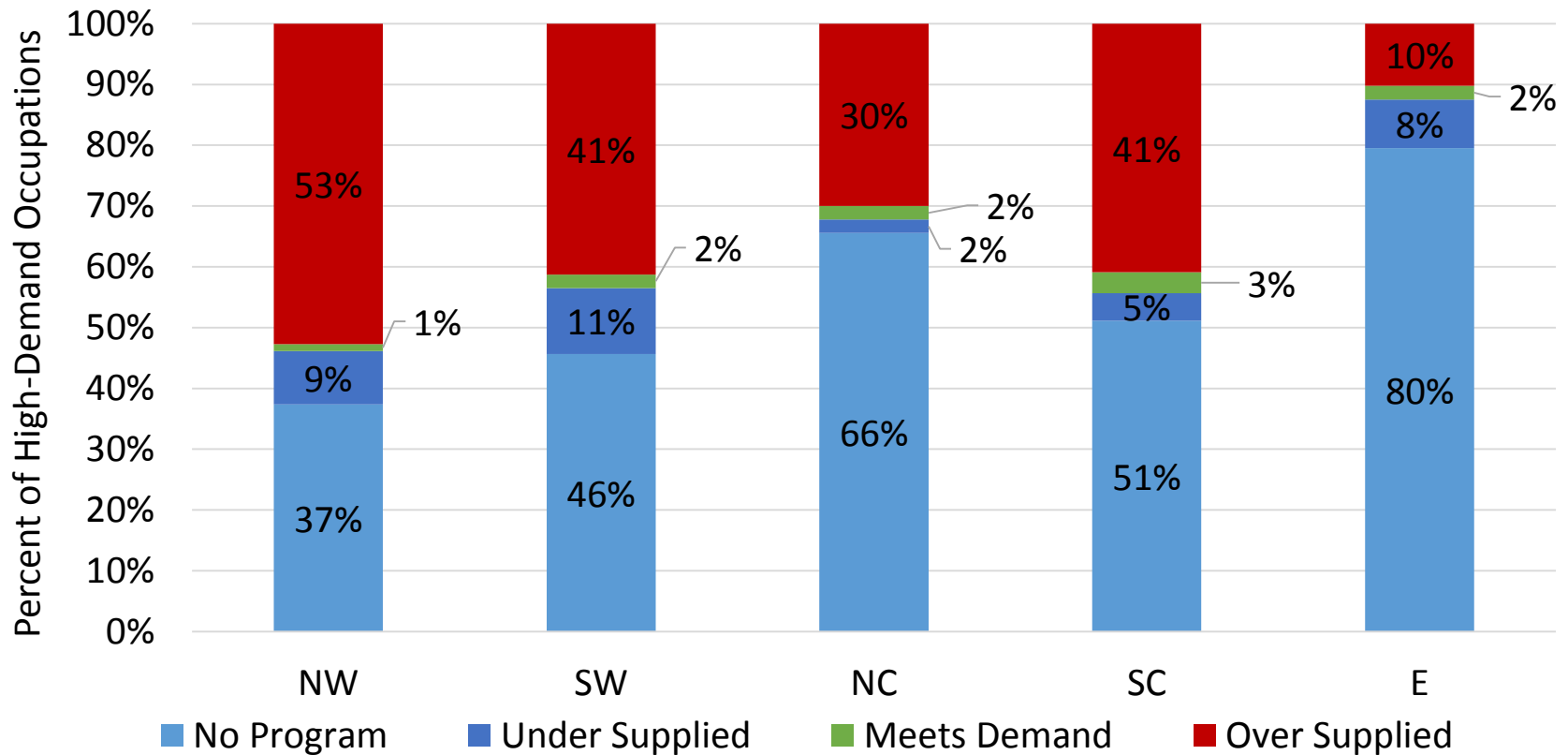
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Occupational Supply and Demand

by Region

More unmet demand in the Eastern and Central Regions





Program Supply and Demand

by Region

Program Category	Program	NW	SW	NC	SC	E
<i>Computer/ Info Science</i>	Computer/Info Science, Other	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
	Information Technology	Green	White	Red	Dark Blue	White
	Computer Science	Dark Blue	Dark Blue	White	Dark Blue	White
<i>Liberal Arts</i>	General Studies	Red	Red	Red	Red	Red
<i>Human Services</i>	Social Work	Red	Dark Blue	White	White	White
<i>Construction, Mechanic & Transportation</i>	Mechanic Repair Tech	Green	Dark Blue	White	Dark Blue	White
	Automotive Technology	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
<i>Health Professions</i>	HIT and Medical Coding	Dark Blue	Dark Blue	Red	Dark Blue	Dark Blue
	Registered Nursing	Dark Blue	Red	Red	Dark Blue	Red
	Practical Nursing	Red	Red	Red	Red	Dark Blue
<i>Business</i>	Business	Red	Red	Green	Red	Dark Blue
	Accounting	Red	Dark Blue	White	Red	White



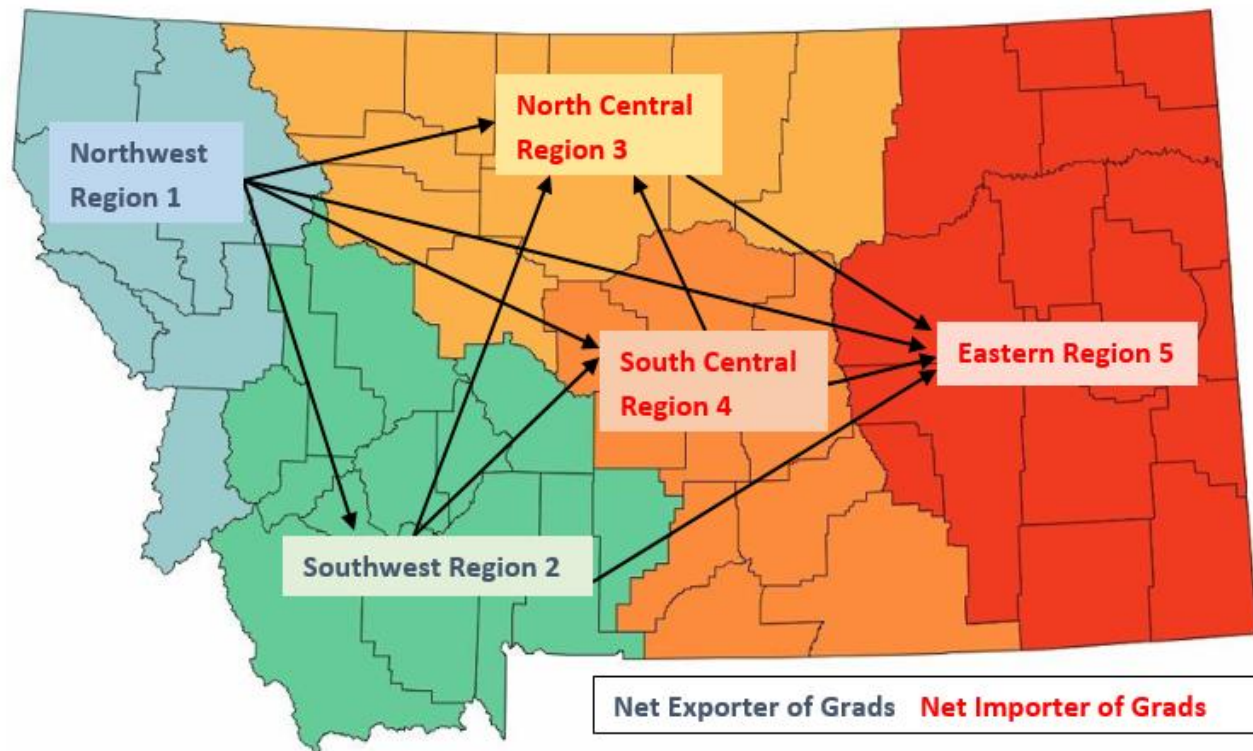
Migration Helps Fill Gaps

Graduate migration from the West into the Central and Eastern regions.

Colleges develop specializations.

- Engineering programs in Southwest
- Pharmacy and PT in Northwest

Most employers hire graduates from the same region.





Thank You

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