

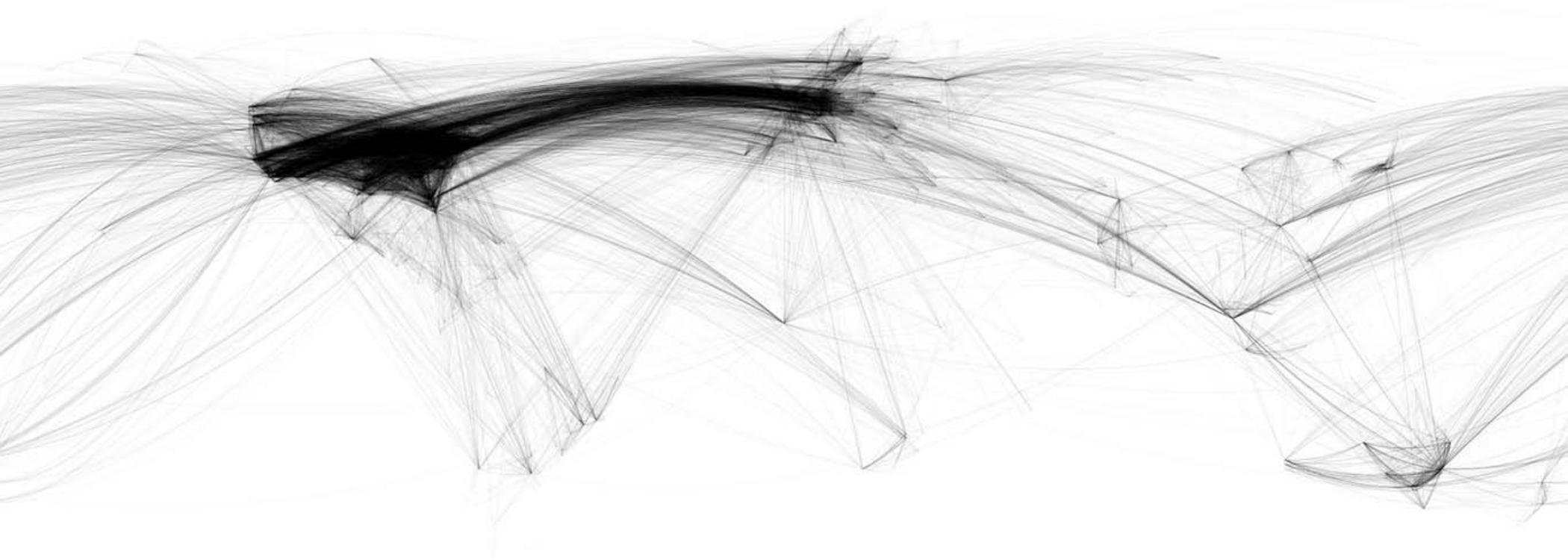
Charting Career Pathways
for a **New Workforce**

Linda Fowler & Hamilton Galloway

We live in a **networked** world

Internet map of city-to-city connections
source: chrisharrison.net

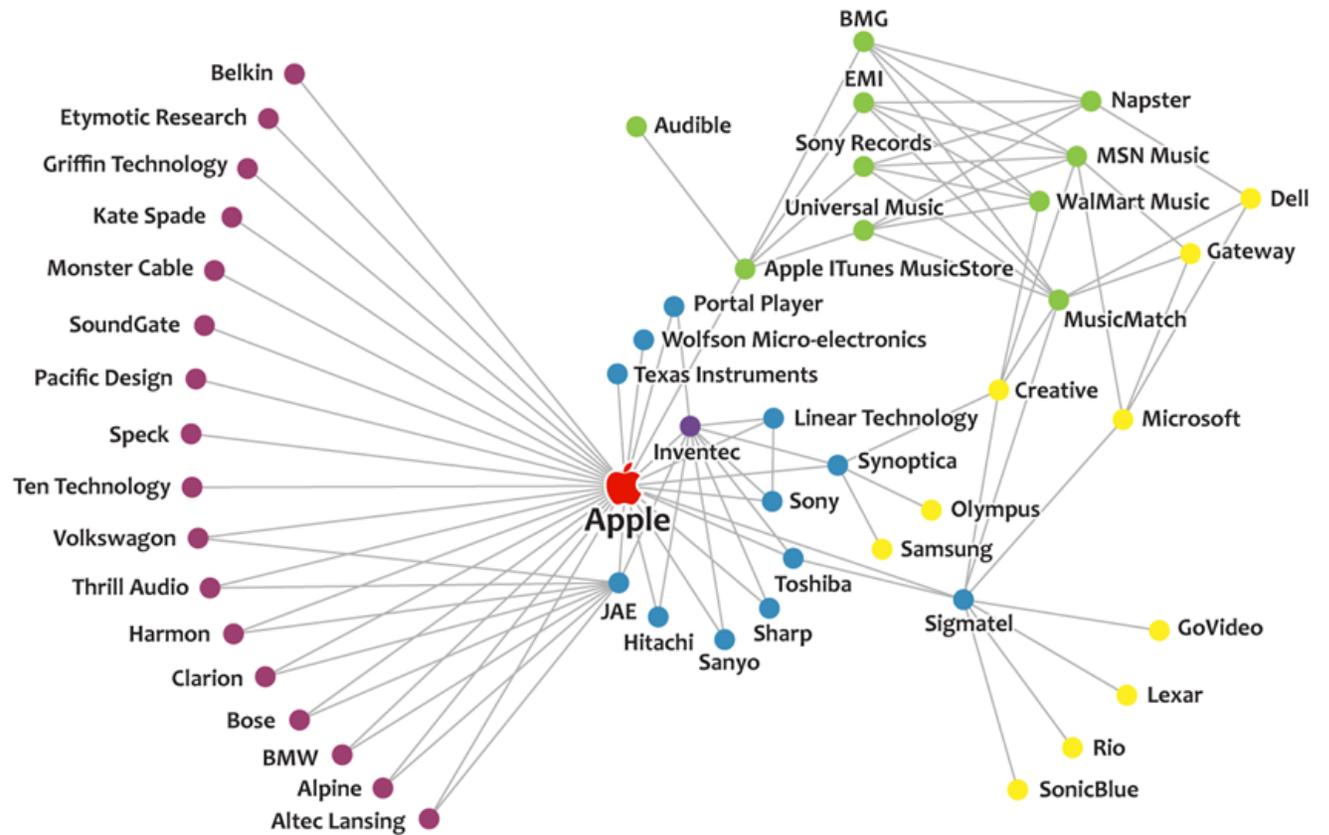
Internet Map
city-to-city connections



ChrisHarrison.net

Q: Who makes the iPhone?

A: *A network led by Apple*



Executing strategy in open networks

- ***Strategic doing*** is set of principles, practices, and disciplines for implementing strategy in a network
- ***Strategic thinking*** and the capacity to translate ideas into action have never been more important
- ***Simple rules*** for managing complex projects in open network
- Helps us ***identify & keep focused on*** transformational questions that move people

No **final** plan

- No *final strategic plan*
- Strategic action plan *reflects midcourse corrections* based on new insights we have learned.
- *Concise guide* that quickly explains where we are and how we are going to get there
- *Convenient framework* for igniting and managing creative collaborations

Q: How do regions function in a **networked world**?

Social Service Economic Development

State Agencies K-12

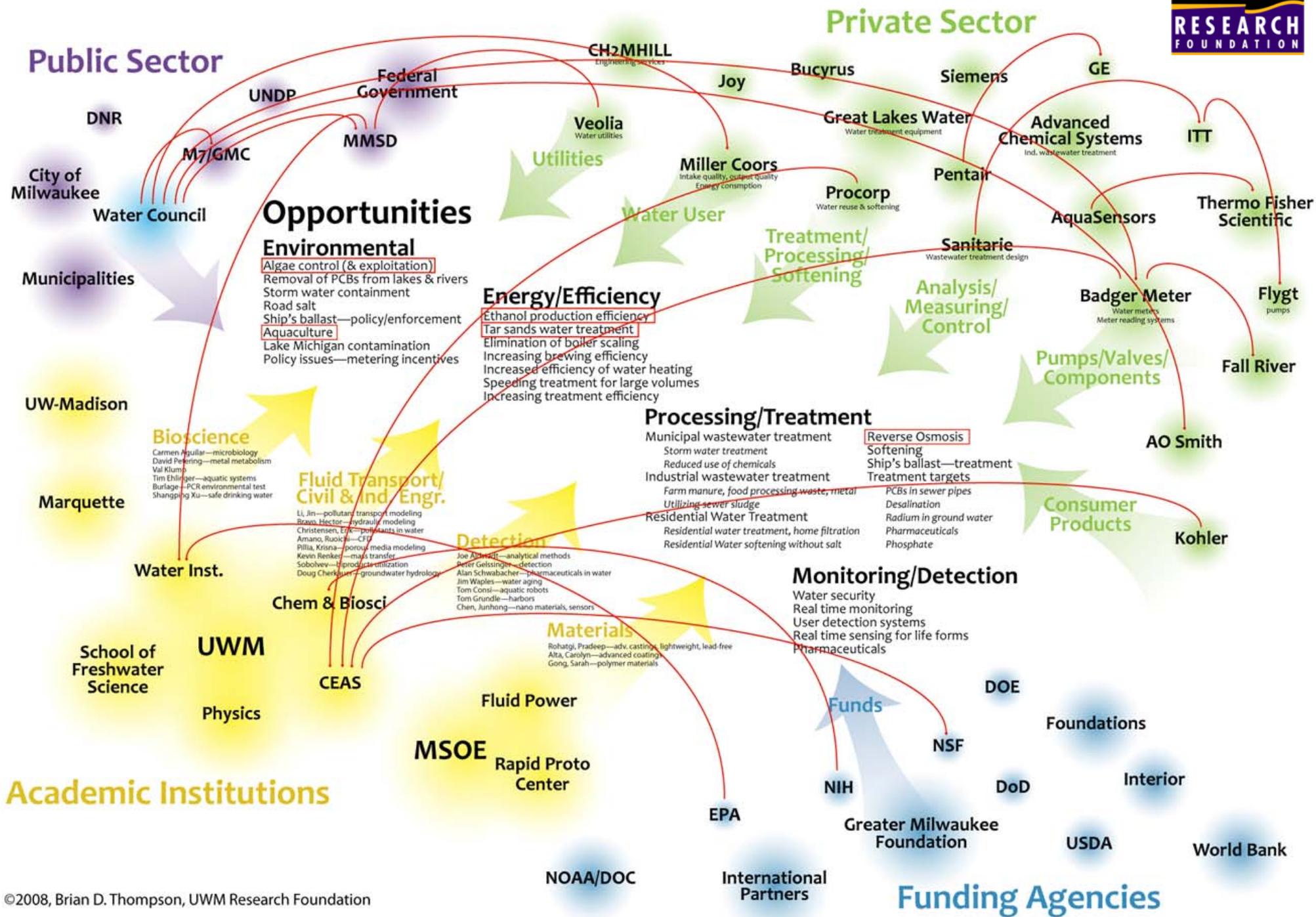
Libraries Chambers

Cities Federal Agencies

Post-secondary Workforce

Counties

The Milwaukee 7 Water Cluster



Networks & Innovation

- Promoting innovation requires *new habits* to think and act together
- Best way to move past old patterns is to *form new collaborations* across organizational and political boundaries
- By connecting assets to our emerging opportunities, defining clear outcomes, setting action plans, and committing to learning, we are *strengthening habits* we need to build networks and *trust that powers them*

Four **critical** questions

- What ***could*** we do together?
- What ***should*** we do together?
- What ***will*** we do together?
- ***When*** will we get back together?

What **could** we do together?

- Strategic doing starts with our *assets*
- How can our assets be combined in *new and different ways*?
- *New patterns* in our assets, new collaborations, new connections
- Future prosperity flows from *opportunities* we see by linking and leveraging our assets
- Consider *three people*—you and two friends—what could you accomplish together?

What **should** we do together?

- We need to ***choose*** two or three of our ideas
- We need to ***focus*** on defining clear, practical, tangible outcomes so others will follow
- Vague outcomes such as entrepreneurial community or seamless workforce system ***do not inspire commitment*** in loosely formed network
- Fail ***fast***, fail ***cheap***, get ***smart***

What **will** we do together?

- Make mutual *commitments*
- Come up with an *action plan* of who does what, by when with measures of progress
- What is the *practical path* to get to our outcome?
- Creativity and innovation is not the product of a single mind but the *blending* of diverse perspectives

Job Opportunity Investment Network (JOIN)

Green Pathways out of Poverty

Funding collaborative in Philadelphia area has brought together business associations, social service organizations, workforce, and education providers to build career pathways

- Start with **coalition** of small “green” businesses
- Assessment of **basic skills** and remediation
- Soft skills and occupational **training**
- Wrap-around **support** services
- **Family** sustaining jobs

Gates Funding Career Pathways in **Manufacturing & Energy**

- ***Gates Foundation*** supporting a pilot to support 16-26 year old low-skill adults moving into “Energy Career Pathways” for 8 states.
- ***Networks include*** state utilities, community colleges, workforce development professionals, community-based organizations
- ***Implementation process*** supports accelerated associates degrees, seamless credentials, and credit for prior learning.
- Students move through ***educational pathways*** of basic skills, industry fundamentals, and occupational specific technical training



Points to consider

- Create a *safe civic space* for complex thinking
- **Remember** everyone is watching their own movie
- Guide conversations with *appreciative questions*
- Focus on *linking assets* in new and different ways
- Ask four *key questions*



Points to consider

- ***Define*** and ***post*** clear outcomes for transparency
- Mark your path with ***SMART goals***
- Draw ***maps*** to guide people
- Use ***metrics*** to learn what works
- Continue to ***revise*** plans
- Close ***triangles*** relentlessly



In **Summary**...

- Focus on possibilities with ***competitive assets*** and ***intentional networks***
- ***Link*** and ***leverage*** individual and organizational aspirations and capabilities
- ***Convene willing partners*** often to have “strategic doing” conversations

A **starting** point

Know your region...

- Data-driven research on industry, workforce, demographic and education assets
- Identify targets (*e.g.* industries, occupations, education programs, *etc.*)

Overview: **process**

- ***How do you identify target occupations and/or target industries?***

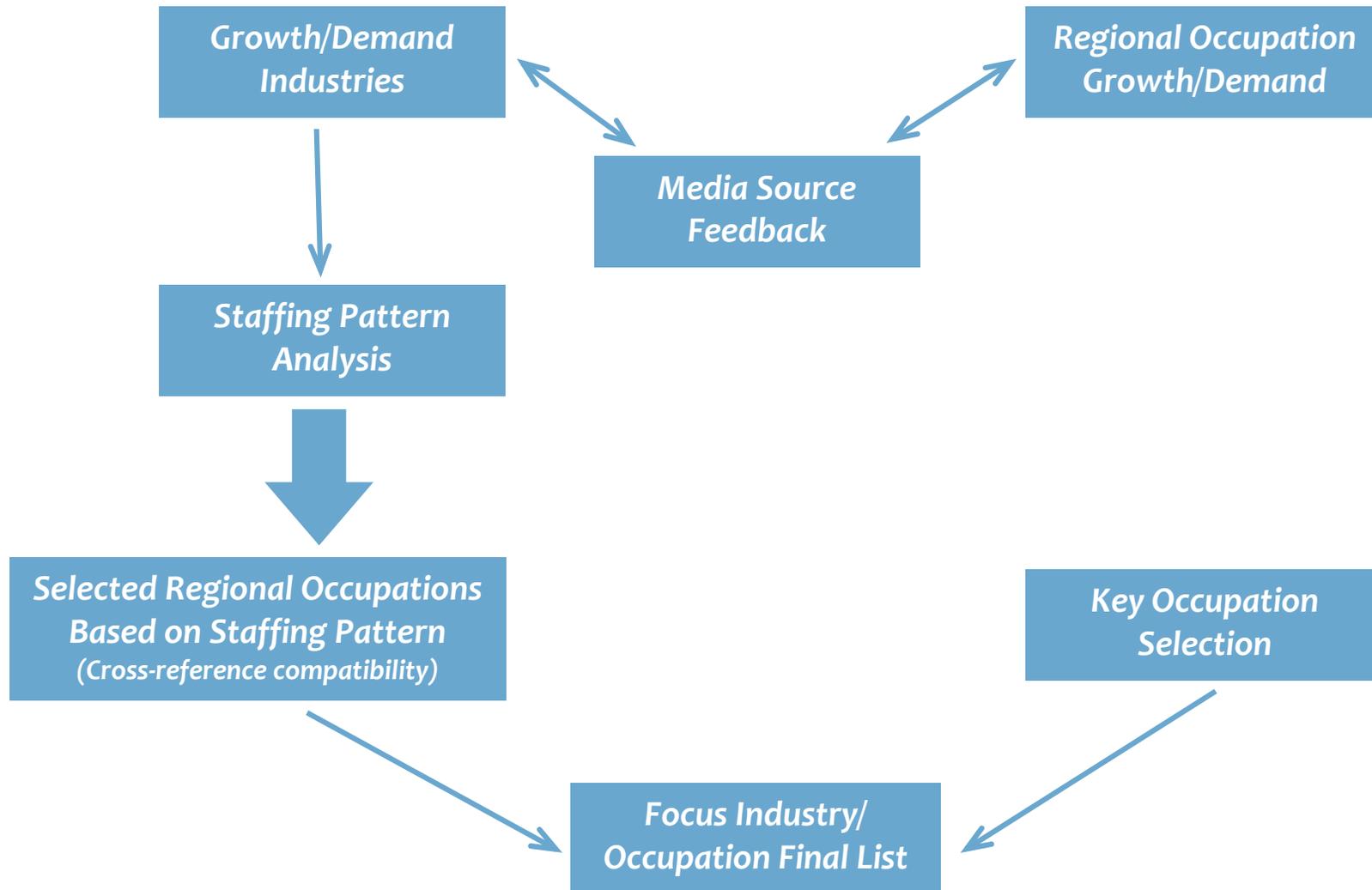
Indicators to look for: size, growth, replacement jobs, specialization, competitiveness, media review

- ***How do you narrow a list of focus occupations?***

Find the *areas of overlap* (occupations that are consistently appearing in the indicators) and be aware of *specializations* within industries

Identifying **target** occupations

Data-Driven Focus Industry and Target Occupation Selection Process:



Competency report **process**

- ***How do you identify competencies?***
Use of O*Net and labor market information
- ***How do you identify career pathways?***
Use of labor market information and occupation compatibility

Industry groups (sample)

- Life Sciences
- Professional and Business Services
- Metal Manufacturing
- Sustainable Energy
- Food Processing
- Plastic and Rubber Product Manufacturing
- Chemical Manufacturing
- Paper/Print Manufacturing
- Transportation and Distribution

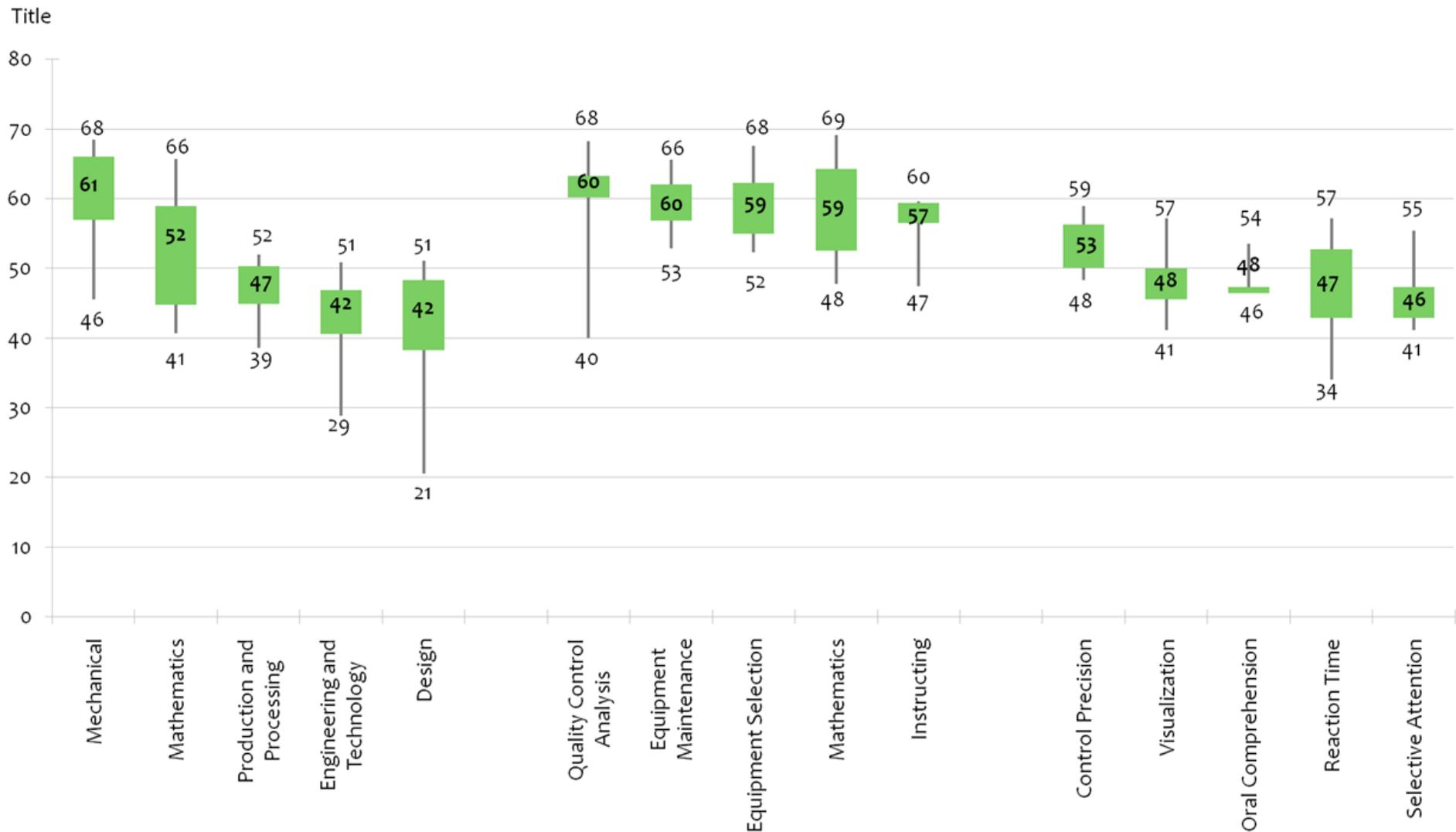
Study results highlights

INDUSTRY GROUP	2005 JOBS	2010 JOBS	2015 JOBS	2005–2015 CHANGE	% CHANGE 2009–19
Life Sciences	375	399	436	61	16%
Business and Professional Services	6,120	8,052	8,764	2,644	43%
Metal Manufacturing	2,420	2,405	2,376	(44)	(2%)
Sustainable Energy	1,253	1,218	948	(305)	(24%)
Food Process	1,788	1,761	1,596	(192)	(11%)
Plastic and Rubber Product Manufacturing	1,509	1,334	1,328	(181)	(12%)
Chemical Manufacturing	2,943	2,765	2,653	(290)	(10%)
Paper and Print Manufacturing	837	1,447	1,411	574	69%
Total	17,245	19,381	19,512	2,267	13%

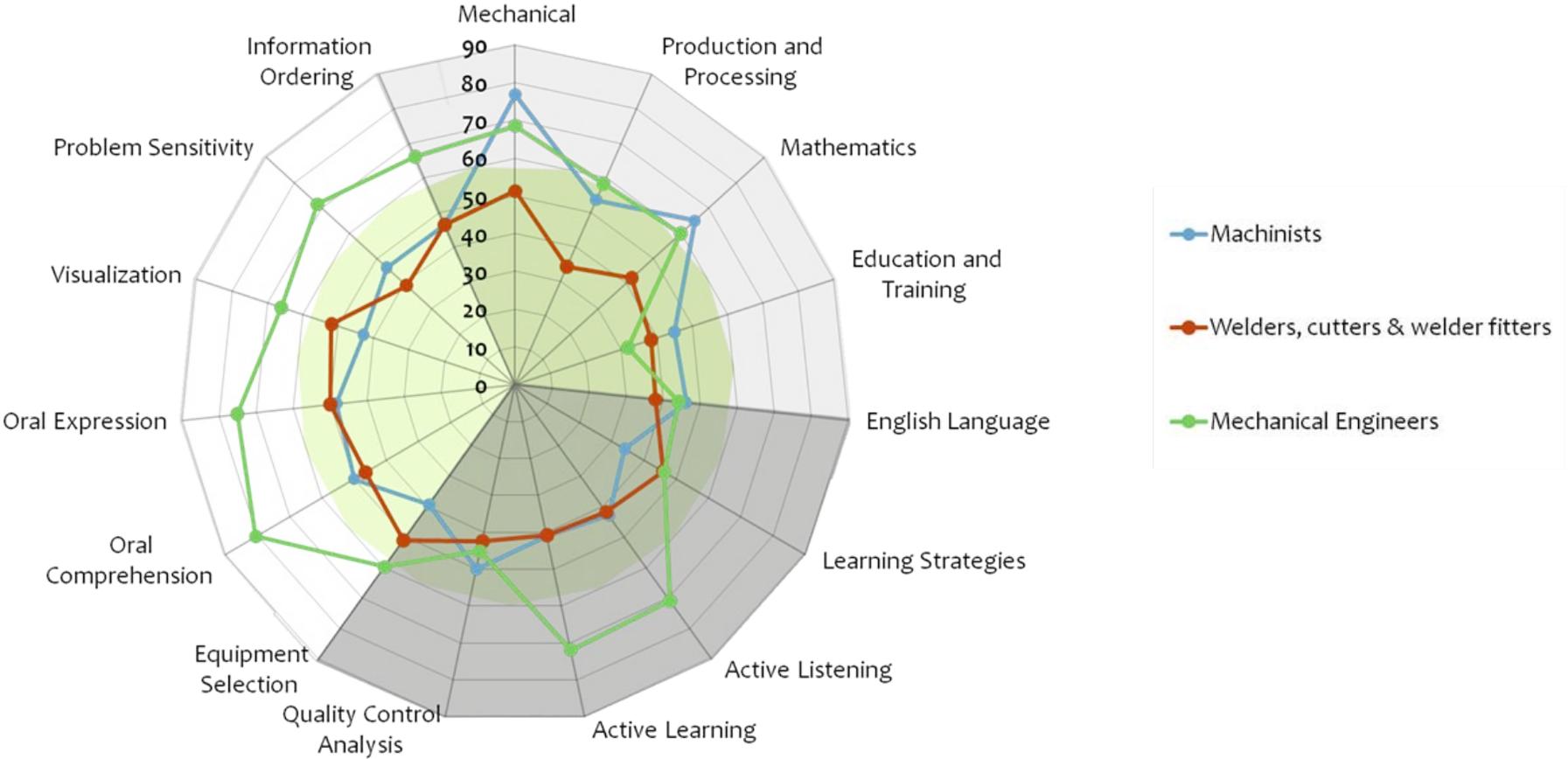
Key occupation sample

DESCRIPTION	2010 JOBS	2015 JOBS	CHANGE	NEW & REP. JOBS	CURRENT MEDIAN HOURLY EARNINGS	EDUCATION LEVEL
Sheet metal workers	326	347	21	59	\$31.34	Long-term on-the-job training
Structural metal fabricators and fitters	80	83	3	10	\$21.32	Moderate-term on-the-job training
Computer-controlled machine tool operators, metal and plastic	251	250	(1)	19	\$17.99	Moderate-term on-the-job training
Lathe and turning machine tool setters, operators, and tenders, metal and plastic	84	74	(10)	19	\$16.67	Moderate-term on-the-job training
Machinists	937	934	(3)	87	\$17.87	Long-term on-the-job training
Multiple machine tool setters, operators, and tenders, metal and plastic	136	137	1	15	\$15.11	Moderate-term on-the-job training
Tool and die makers	109	109	0	13	\$24.62	Long-term on-the-job training
Mechanical Engineer	216	220	4	32	30.05	Bachelor's Degree
Welders, cutters, solderers, and brazers	541	550	9	66	\$17.15	Long-term on-the-job training
Total	3,164	3,137	(27)	415	\$18.36	

Example key competencies

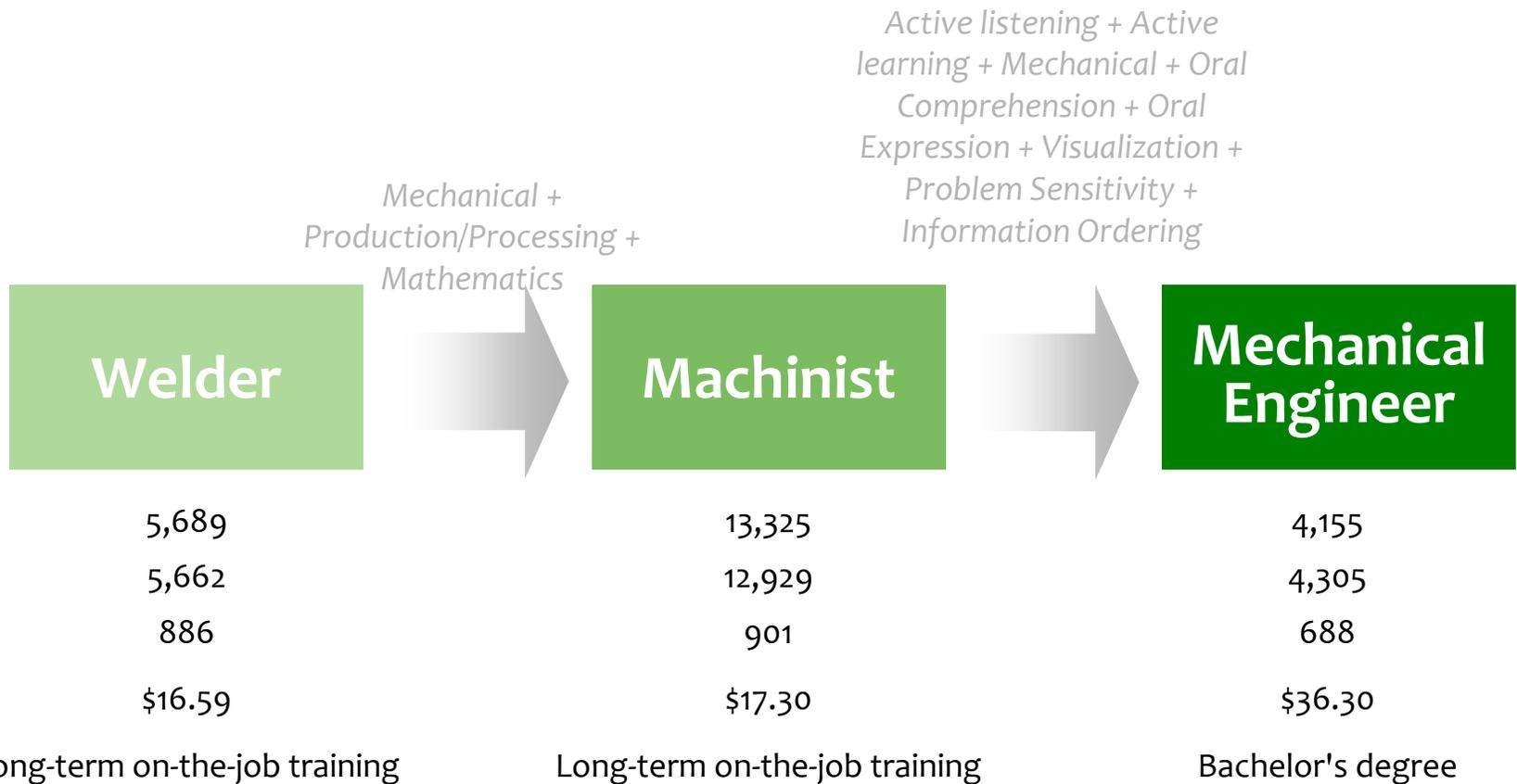


Production occupation—Group 1





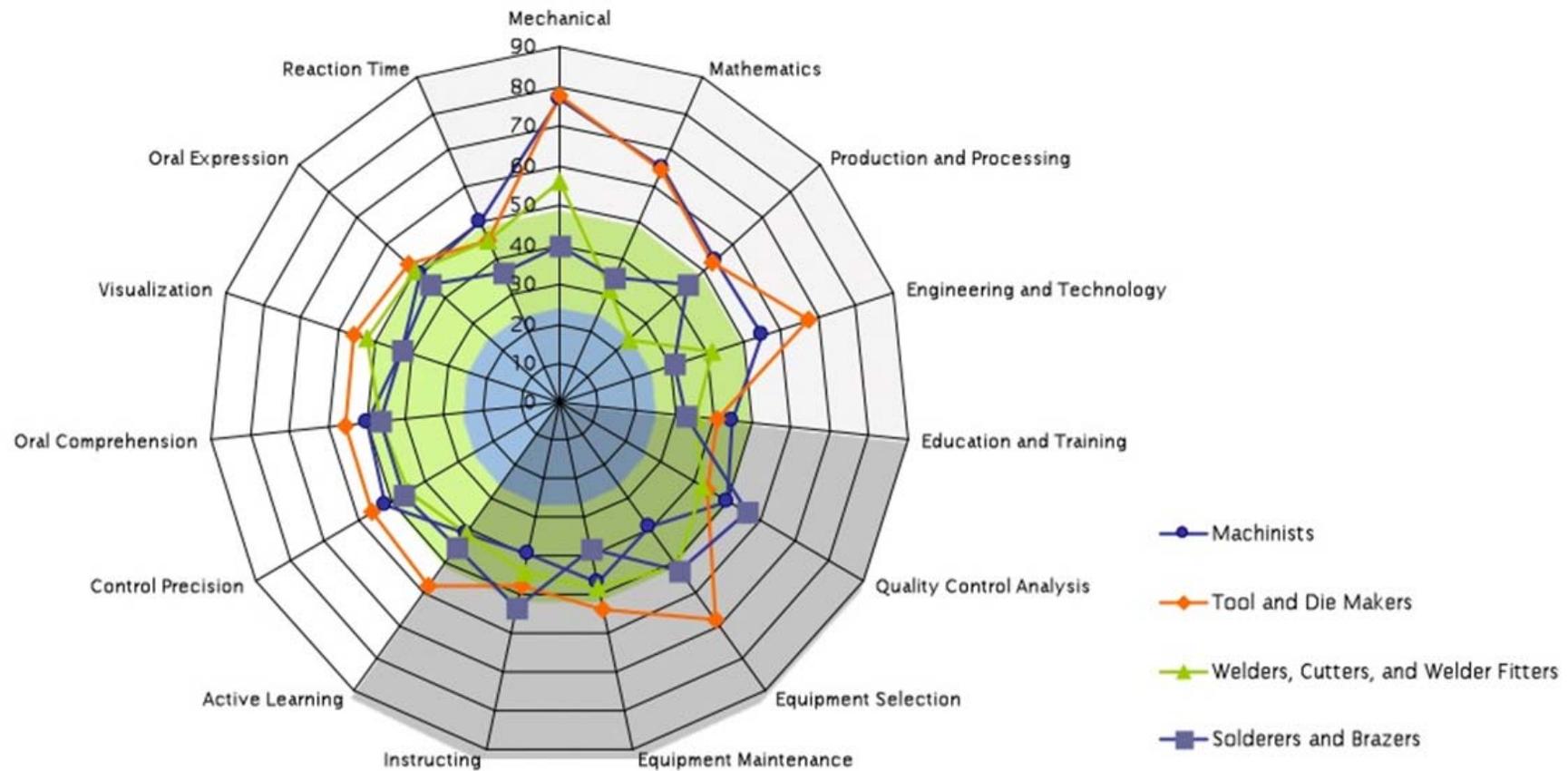
Results for Career Pathway



Occupation data for Cook, DuPage and Will Counties

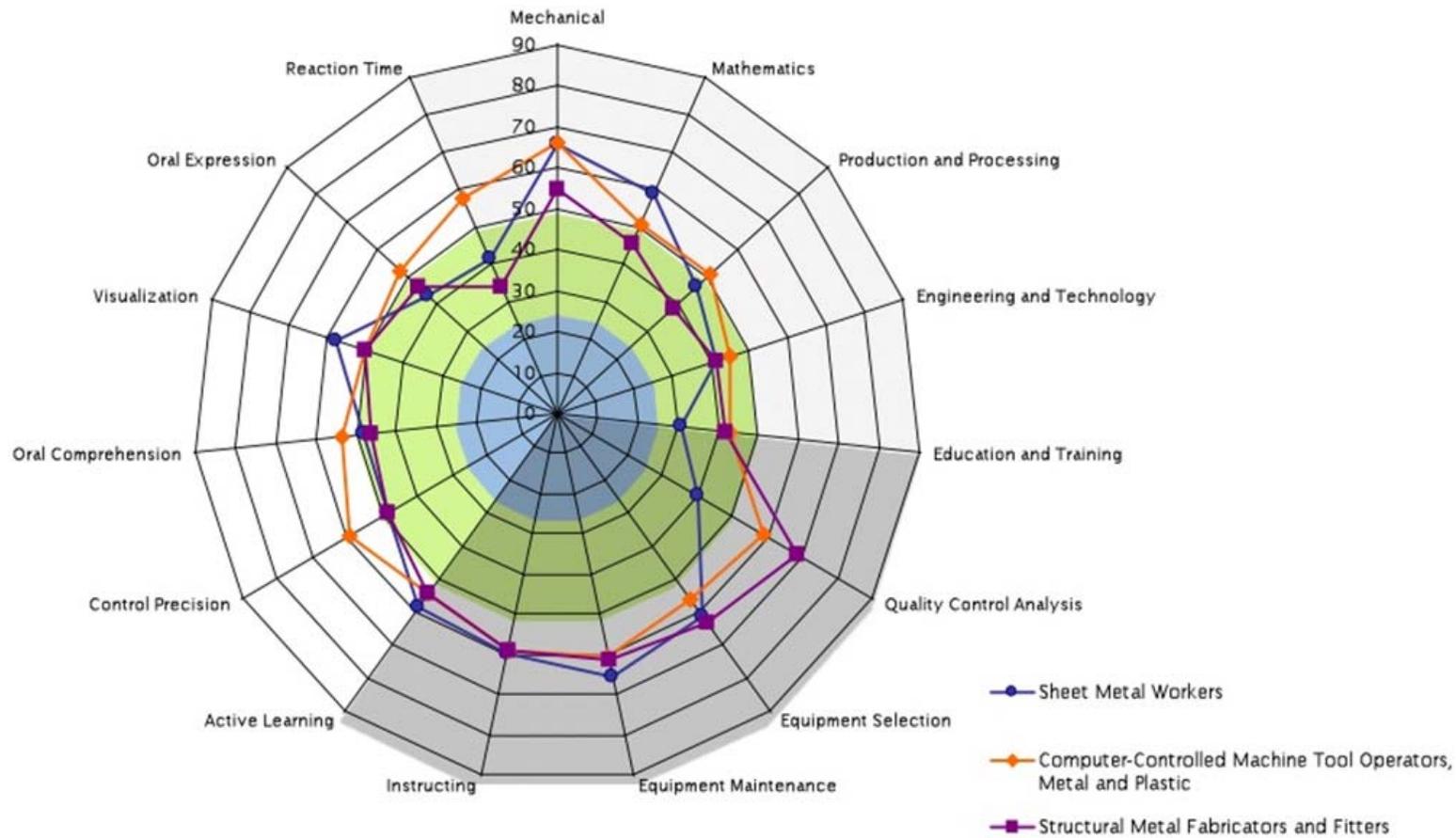
Metal production occupations

highly skilled group



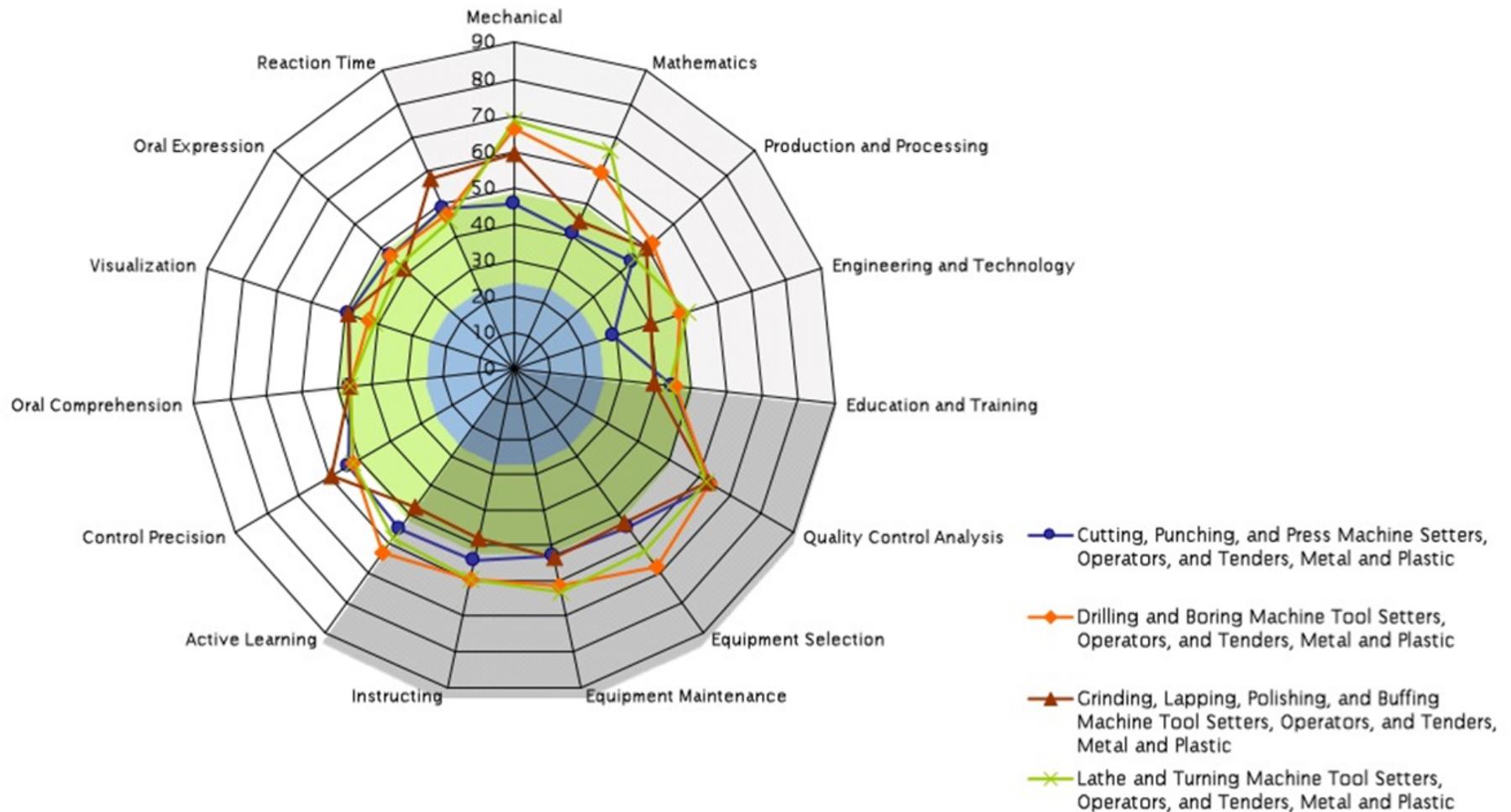
Metal production occupations

middle skilled group

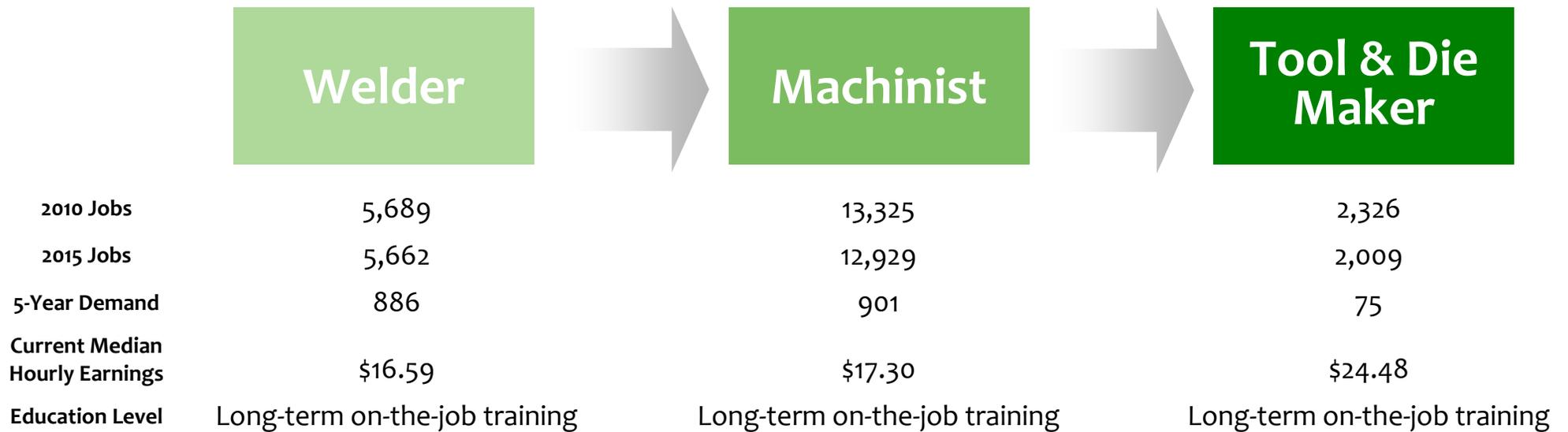


Metal production occupations

tool & machine operators



LMI Data & Career Pathway potential



Occupation data for Cook, DuPage and Will Counties

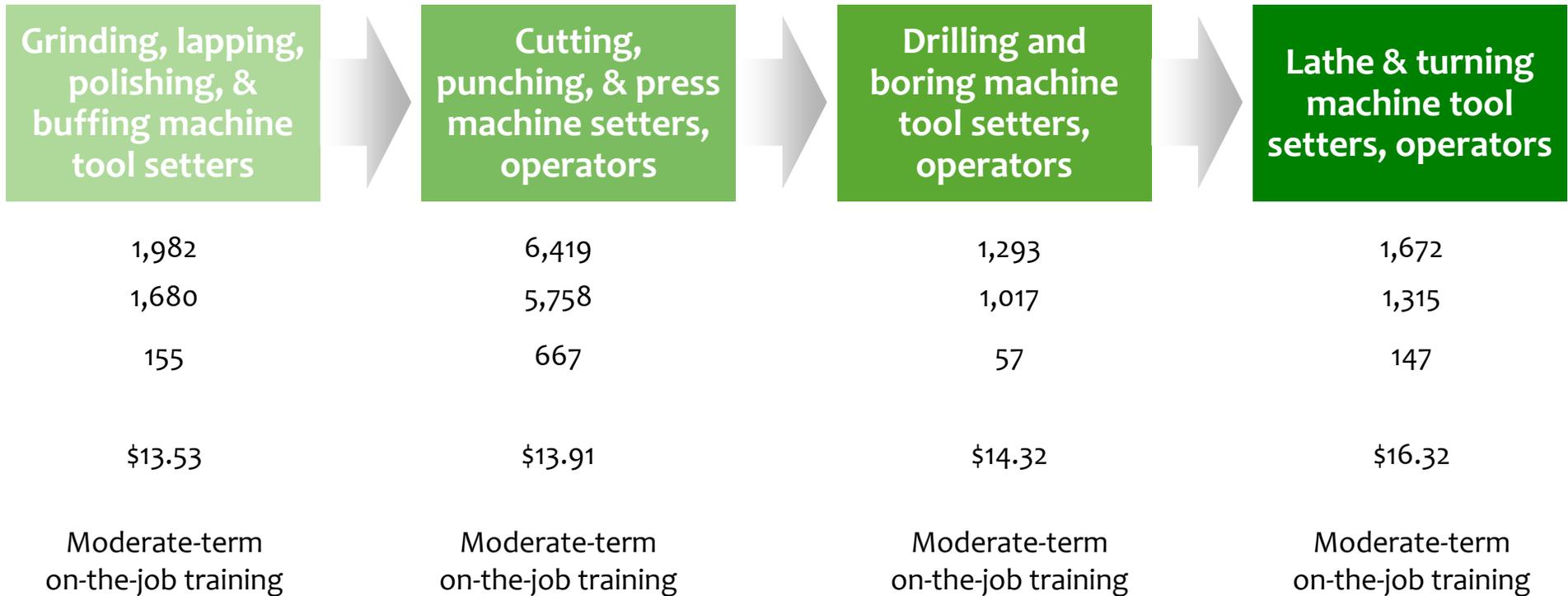
LMI Data & Career Pathway potential



	CNC Operator	Structural Metal Fabricator	Sheet Metal Worker
2010 Jobs	3,922	905	3,762
2015 Jobs	3,832	910	4,098
5-Year Demand	397	102	772
Current Median Hourly Earnings	\$17.56	\$20.93	\$33.02
Education Level	Moderate-term on-the-job training	Moderate-term on-the-job training	Long-term on-the-job training

Occupation data for Cook, DuPage and Will Counties

LMI Data & career transition potential



Occupation data for Cook, DuPage and Will Counties

Next **key questions**

- ***Education Program Demand*** (Target Occupations)?
- Do ***Current Programs*** Exist?
- Do the programs provide a ***large enough supply*** for future workforce needs?
- Do the programs' curriculum match the ***region's expectations*** for occupations?

Creative implementation

- *Pooled* resources
- *Federal/state* funding
- *Foundation* funding

Thank you!

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