

Midwest Transportation Workforce Center



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April 21-22, 2015

Strategic Advisory Meeting

Madison, Wisconsin



HOW WE CAME ABOUT AND WHAT WE WANT TO DO

The 2012 National Transportation Workforce Summit



Government, industry, labor, and education from across the nation came together to develop a strategic framework for addressing the challenges of recruiting, training and retaining the current and future transportation workforce.

<http://www.cutcworkforce.com/>



Critical Issues for the Transportation Workforce

Demographic Changes

- “Baby Boomer” retirements
- 50 percent of the transportation workforce eligible to retire in ten years
- Loss of specialized knowledge and experience
- New generation of young workers and leaders have different expectations and needs

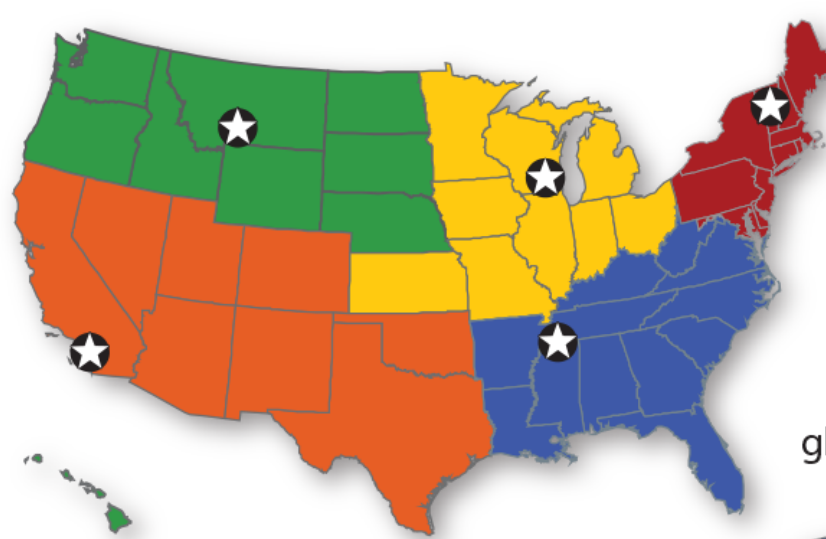
New Technologies

- Increasing rate for technological innovation in transportation planning and management
- More technically complex operating systems require high skilled operators and managers
- Traditional technicians become obsolete

Need for Transportation Workforce Centers

- Many good programs are disconnected
- Need for strategic/coordinated workforce efforts
- Utilize/leverage existing resources
- Stimulate partnerships across transportation, education, workforce, labor communities
- Promote successful practices at all levels
 - Grades 6-12, Community Colleges, Technical Schools, University, Post Graduate, Professional Development

National Network for the Transportation Workforce



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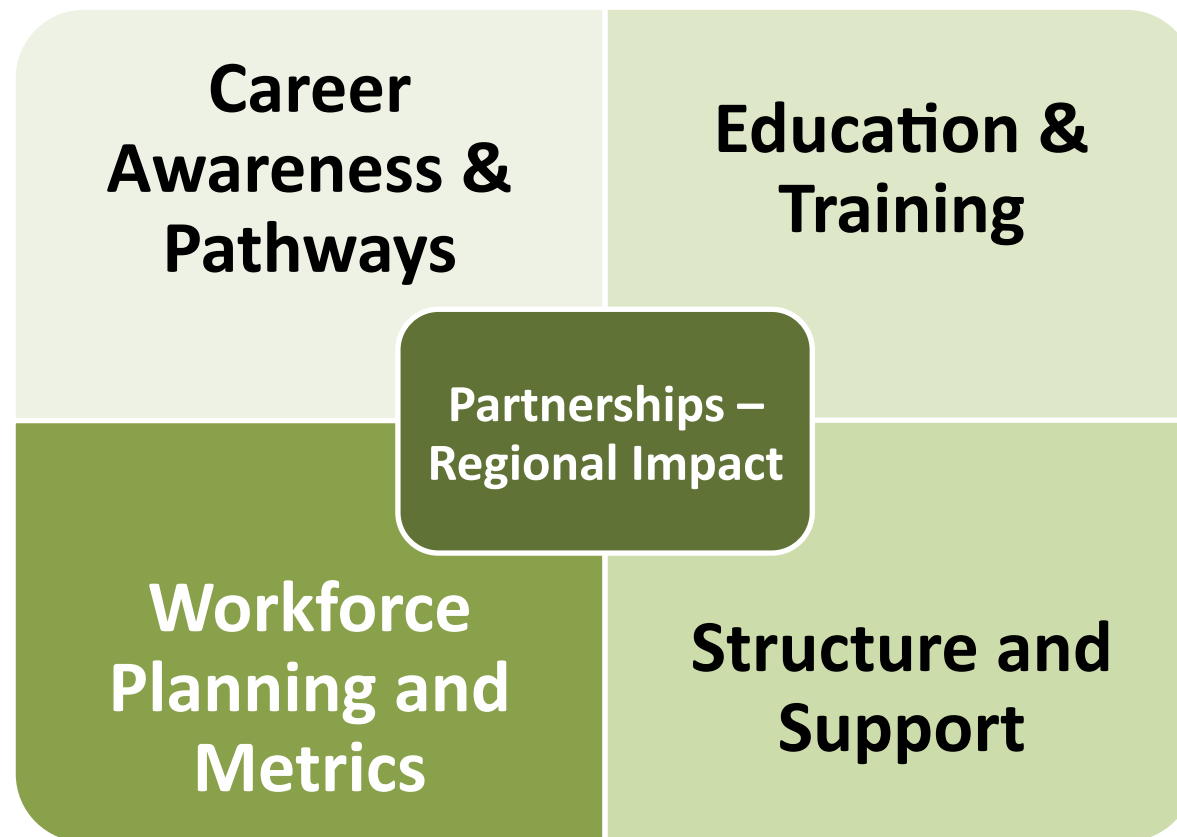


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MTWC

Build the partnerships, processes, and tools to develop tomorrow's transportation workforce





Key Activities and Deliverables

- Job Needs/Priorities Report
- Facilitate Partnerships for Workforce Development and Practices
- Compendium of Transportation Workforce Resources
- Maintain a Website and Clearinghouse
- Establish Engagement Group to Advise Center
- Develop Strategic Plan
- Develop Annual Program Plans



TRANSPORTATION WORKFORCE IN THE MIDWEST

What's a Transportation Job?

- Data on Future Workforce Needs
 - Transportation Learning Center, Jobs for the future.
- Human Capital Strategic Plan
 - Illinois Department of Transportation (IDOT)
- Beyond Traffic 2045
 - US Department of Transportation
- O*NET—transportation knowledge
- National Association of State Directors of CTE
- Bureau of Labor Statistics

Some Occupations Require Transportation Knowledge

O*NET Transportation Definition:

Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.

National Association of State Directors of Career Technical Education

Transportation, Distribution and Logistics:

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.



Transportation, Distribution, and Logistics Employers

- Manufacturing firms
- Third party logistics firms – warehousing, dedicated carriers, forwarders
- Merchandising-retailers, wholesalers, distributors
- Transportation firms, freight and/or passenger
- Education organizations
- Government agencies-U.S. Military, Dept. of Transportation, etc.
- Service Institutions-banks, hospitals, etc.
- Consulting firms

What is a Transportation Job?

(according to the MTWC)

Operate and Maintain Conveyances by Mode:

- Air
- Rail
- Highway
- Bikeways
- Transit
- Water (blue & brown)
- Freight

Have a role in Lifecycle Phase of Infrastructure to Support operation of Conveyances

- Design
- Build
- Operate
- Maintain





Midwest Transportation Workforce Center

High-demand, High-skill, High-wage

TRANSPORTATION OCCUPATIONS IN THE MIDWEST

Data Analysis Sources

State	Organization
IA	Iowa Workforce Information Center
IL	Illinois Department of Employment Security
IN	Indiana Department of Workforce Development
KS	Labor Information Center
MI	Michigan Department of Technology, Management and Budget
MN	Department of Employment and Economic Development
MO	Missouri Economic Research and Information Center
OH	Department of Job and Family Services
WI	Wisconsin Department of Workforce Development

High-Demand Occupations

Occupation having more than the median number of total openings for statewide or particular region.

Table 1: Projected Transportation Workers in the Midwest Region

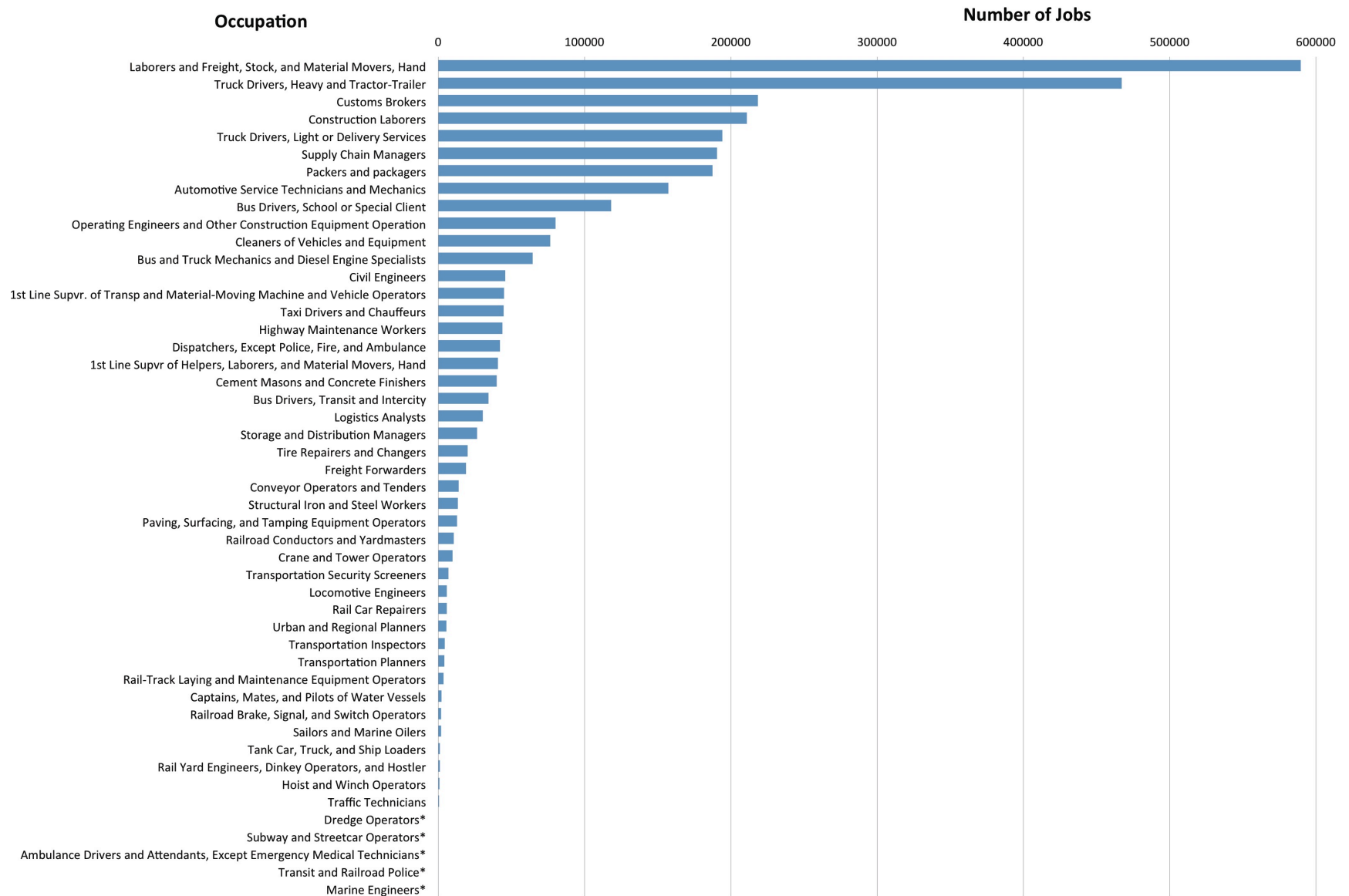
	Projected Transportation Jobs 2022									TOTAL
Occupation	IA	IL	IN	KS	MI	MN	MO	OH	WI	REGION
Storage and Distribution Managers	1295	6060	3037	1443	2230	2393	1975	5610	2446	26489
Supply Chain Managers	11395	80204	9450	8038	18560	N/A	17592	26550	18760	190549
Logistics Analysts	700	5195	2217	1503	5700	3041	2789	7050	2234	30429
Customs Brokers	15550	78663	10156	9094	44130	N/A	16894	24270	19669	218426
.										
.										
Packers and Packagers	8970	53317	14051	6013	21470	11470	9540	41000	21697	187528
Tank Car, Truck and Ship Loaders	N/A	759	44	18	90	262	N/A	N/A	N/A	1173

N/A : Data suppressed or not available

Source: Each State's Workforce Development Center Website.



Demand for Transportation Jobs in the Midwest Region (2022)



* Estimate not available.

High-Wage Occupations

Pay more than the industry median wage for the state.

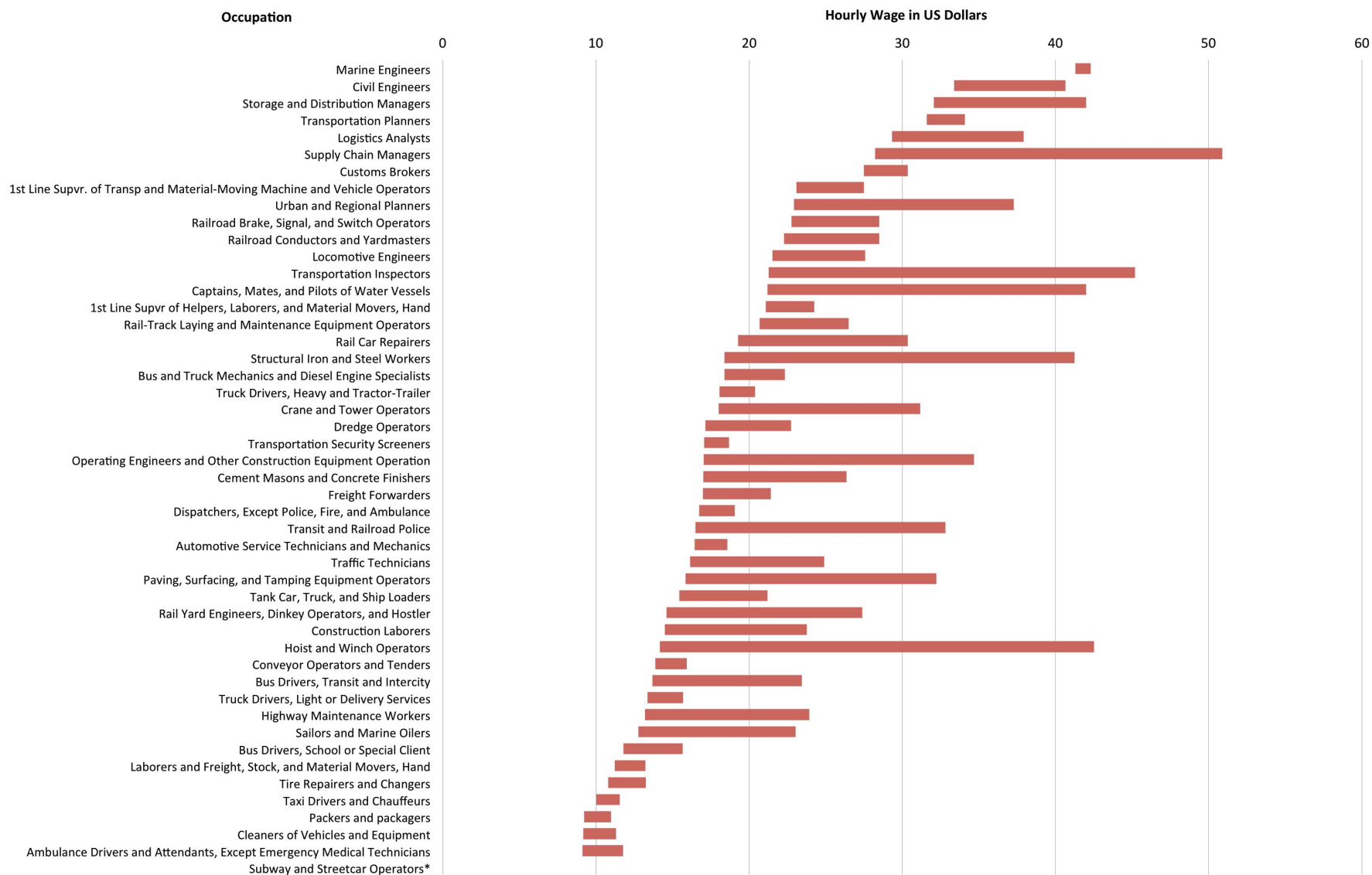
Table 2: Wage Range for Transportation Occupations

State	Median Wage All Occupations (\$)	Wage Range Transportation Occupations (\$)		
IA	15.91	9.23	-	37.02
IL	17.59	9.60	-	46.40
IN	15.63	10.06	-	42.00
KS	15.83	9.38	-	42.39
MI	16.70	9.38	-	45.18
MN	18.30	10.35	-	50.88
MO	15.76	9.16	-	46.61
OH	16.47	9.11	-	43.94
WI	16.52	10.20	-	41.30

Source: 'May 2014 State Occupational Employment and Wage Estimates'-Bureau of Labor Statistics



Hourly Salaries for Transportation Jobs in the Midwest



High-Skill Occupations

Require post-secondary training or higher and long-term on the job training or related work experience.

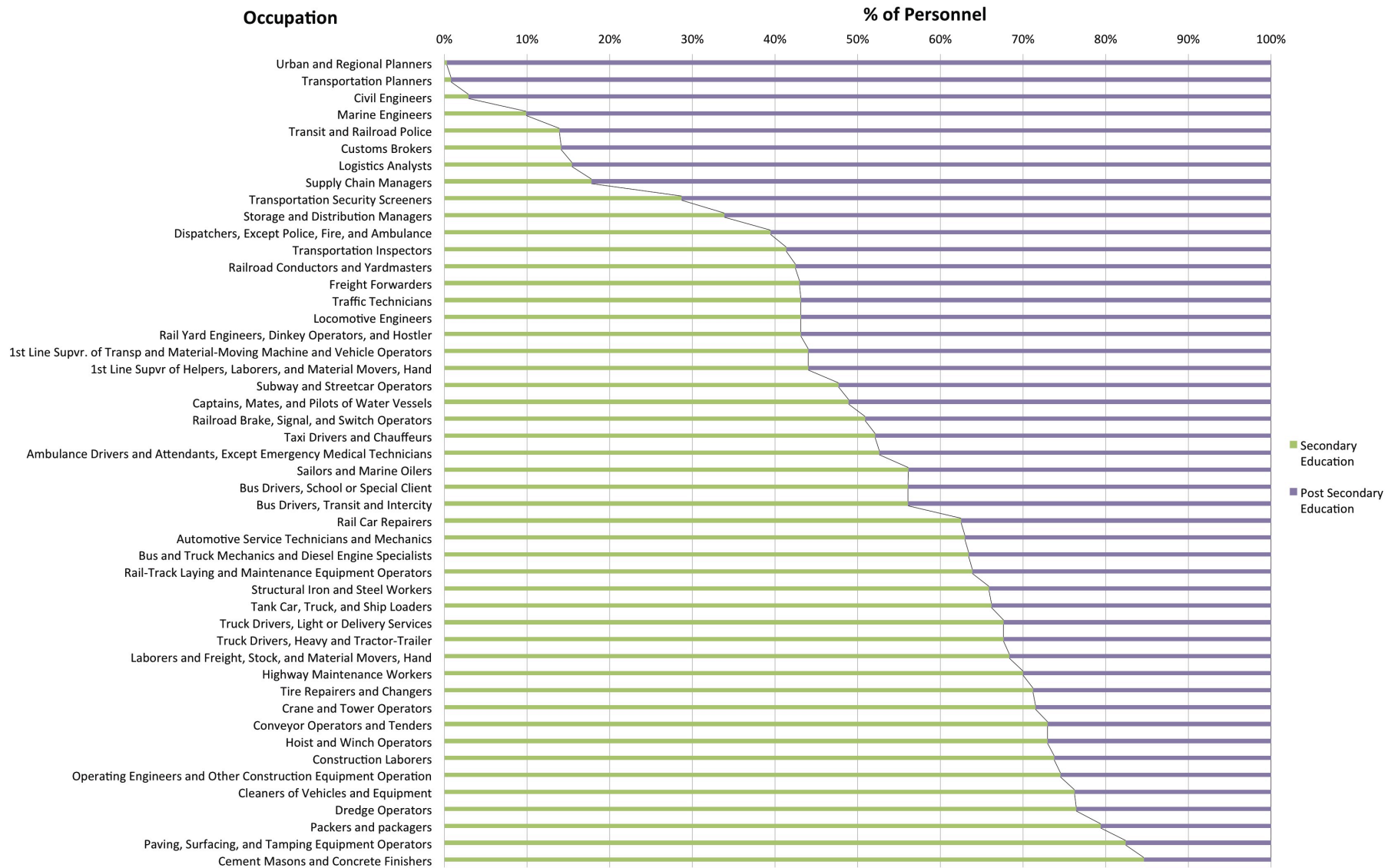
Table 3: Education attainment of incumbent workers by percent

Occupation	Less than high school diploma	High school diploma / equivalent	TOTAL Secondary	Some college, no degree	Associate degree	Bachelor degree	Master degree	Doctoral / professional degree	TOTAL Post Secondary
Storage and Distribution Managers	4.8	29.1	33.9	28.9	8.4	22.5	5.5	0.9	66.1
Supply Chain Managers	2.8	15	17.8	20.4	7.8	34.4	16.2	3.4	82.2
Logistics Analysts	1.5	13.9	15.4	28.6	14.2	30.6	10.6	0.5	84.6
Customs Brokers	1.9	12.2	14.1	20.3	9.6	35.5	16.7	3.8	85.9
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.									
Packers and packagers	39	40.4	79.4	12.6	3.3	3.8	0.7	0.2	20.6
Tank Car, Truck, and Ship Loaders	21.7	44.4	66.1	23.5	5.2	4.7	0.2	0.2	33.9

Source: 'Educational attainment for workers 25 years and older by detailed occupation, 2010-2011' - Bureau of Labor Statistics

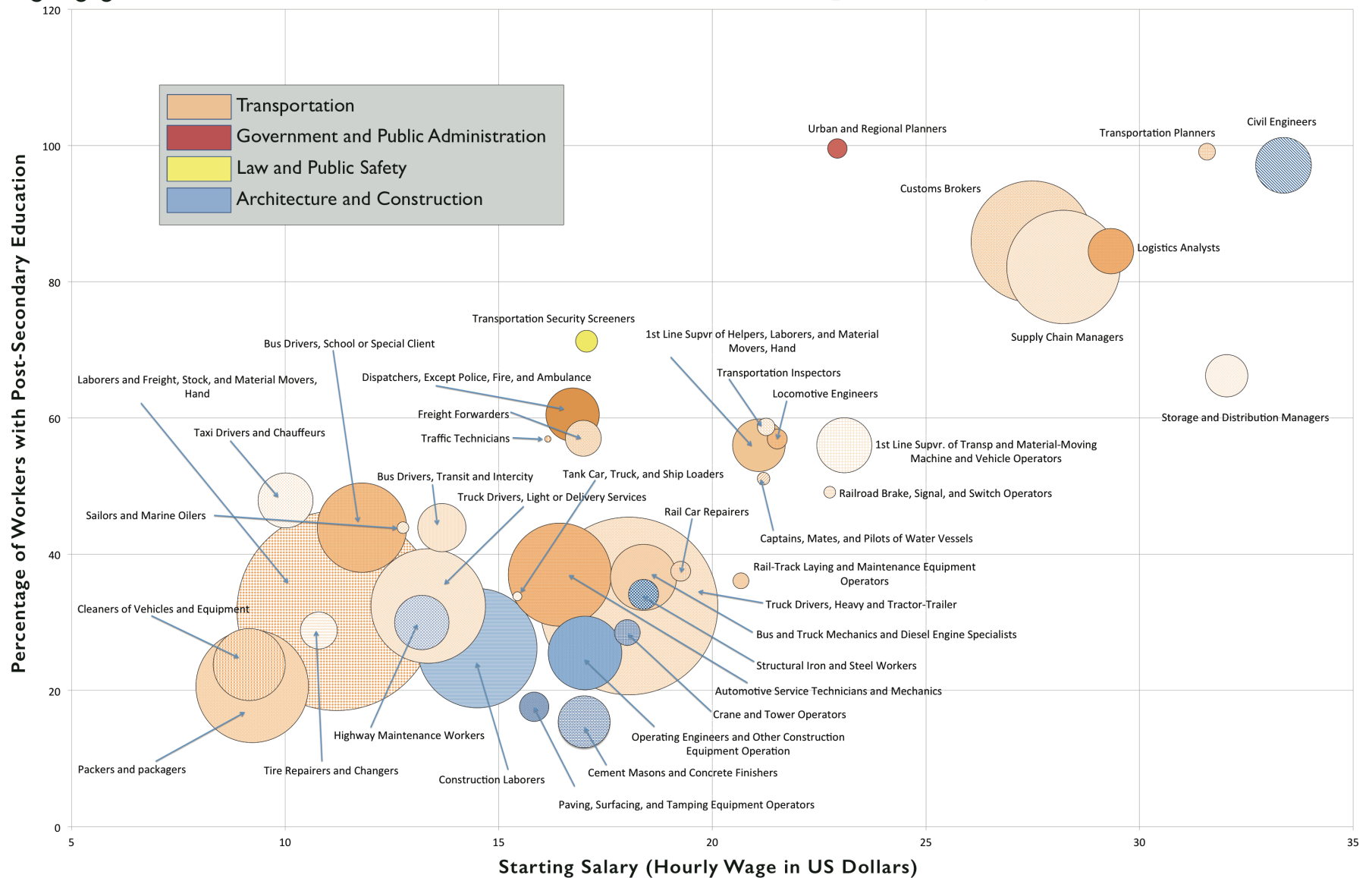


Educational Attainment of Incumbent Transportation Workers in the US (2010-2011)





Demand Comparison for Transportation Jobs in the Midwest by Wage and Skill



Transportation Job Share in Projected Employment 2022

Table 4: Projected Transportation Jobs as a Percent of all Jobs

State	Transportation Jobs*	All Jobs	% Transportation Jobs
IA	206930	1955480	11%
IL	765142	6678572	11%
IN	301819	3148886	10%
KS	153983	1609566	10%
MI	382530	4497030	9%
MN	217956	3120400	7%
MO	281351	3086278	9%
OH	533310	5957100	9%
WI	311813	3269173	10%

*Excludes Air Transportation jobs, and transportation sector jobs not requiring transportation knowledge



Midwest Transportation Workforce Center

TRANSPORTATION OF THE FUTURE: TRENDS AND CHOICES



Imagine
eliminating
9 out of every **10**
car crashes.

That's the bright promise
driverless technology
holds over the next 30 years.

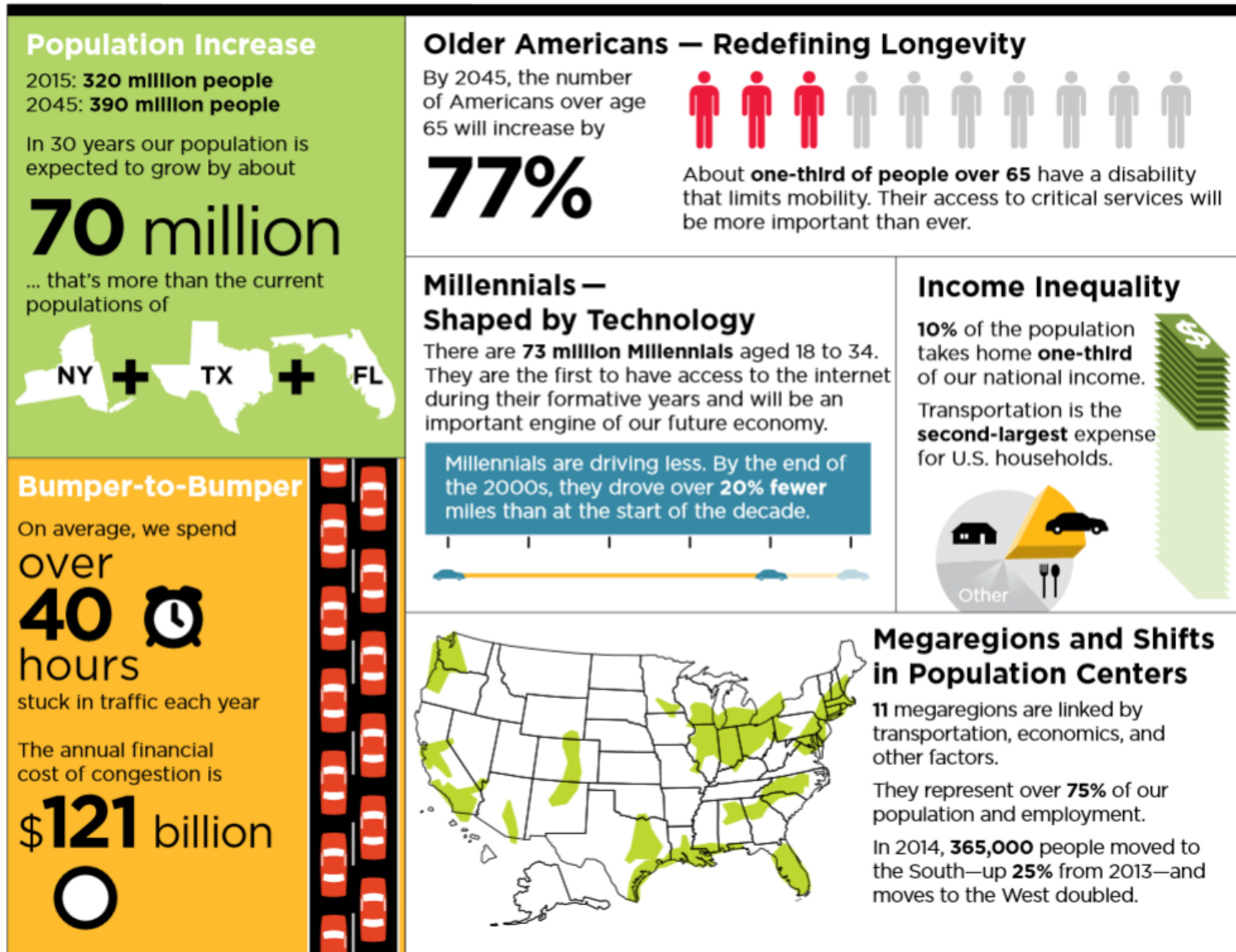
Imagine your
plane never has to circle
the airport again,

because flights are
perfectly timed and the skies
are *clear of congestion*.

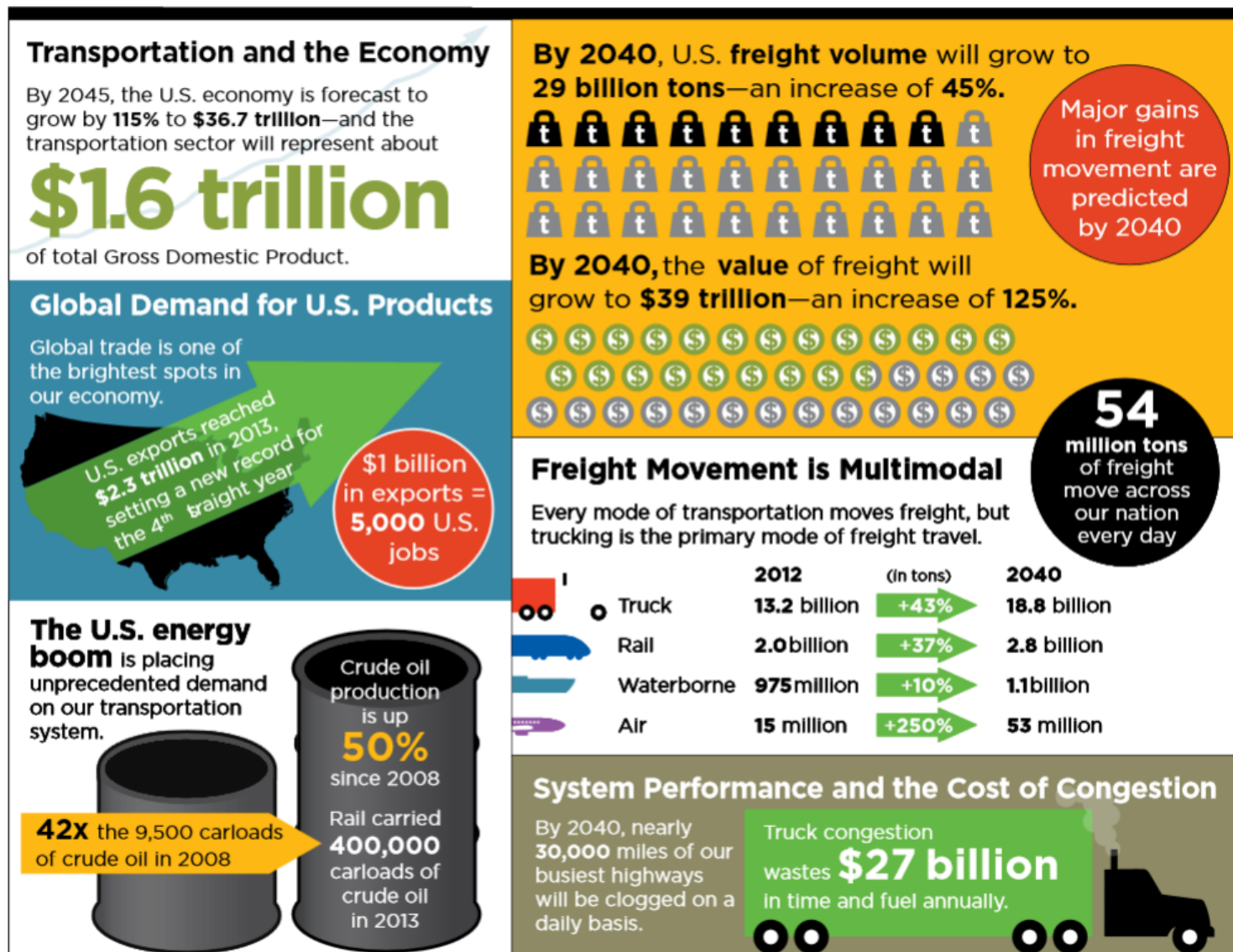
This is the potential of
“NextGen”
air traffic control systems.



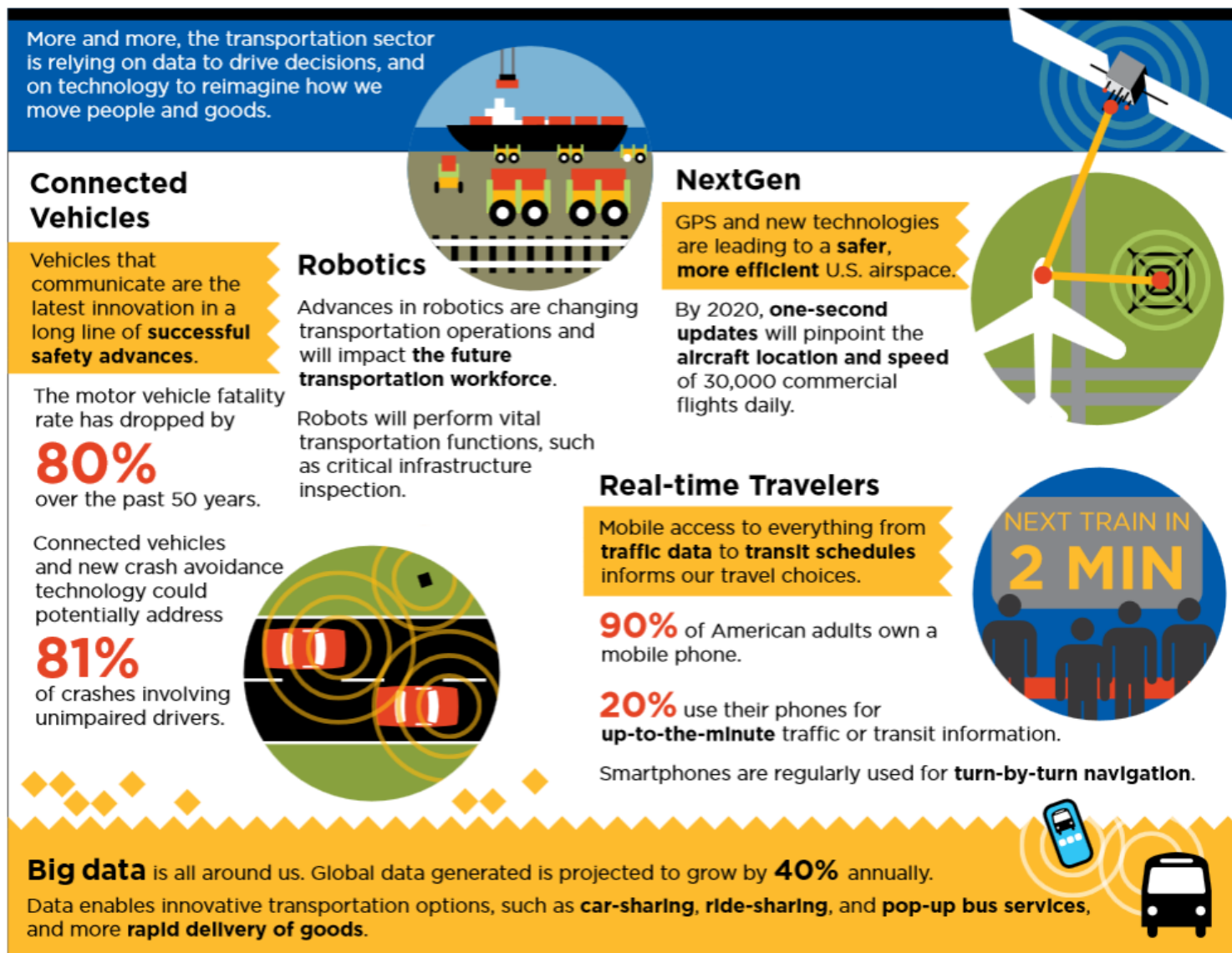
How will we move?



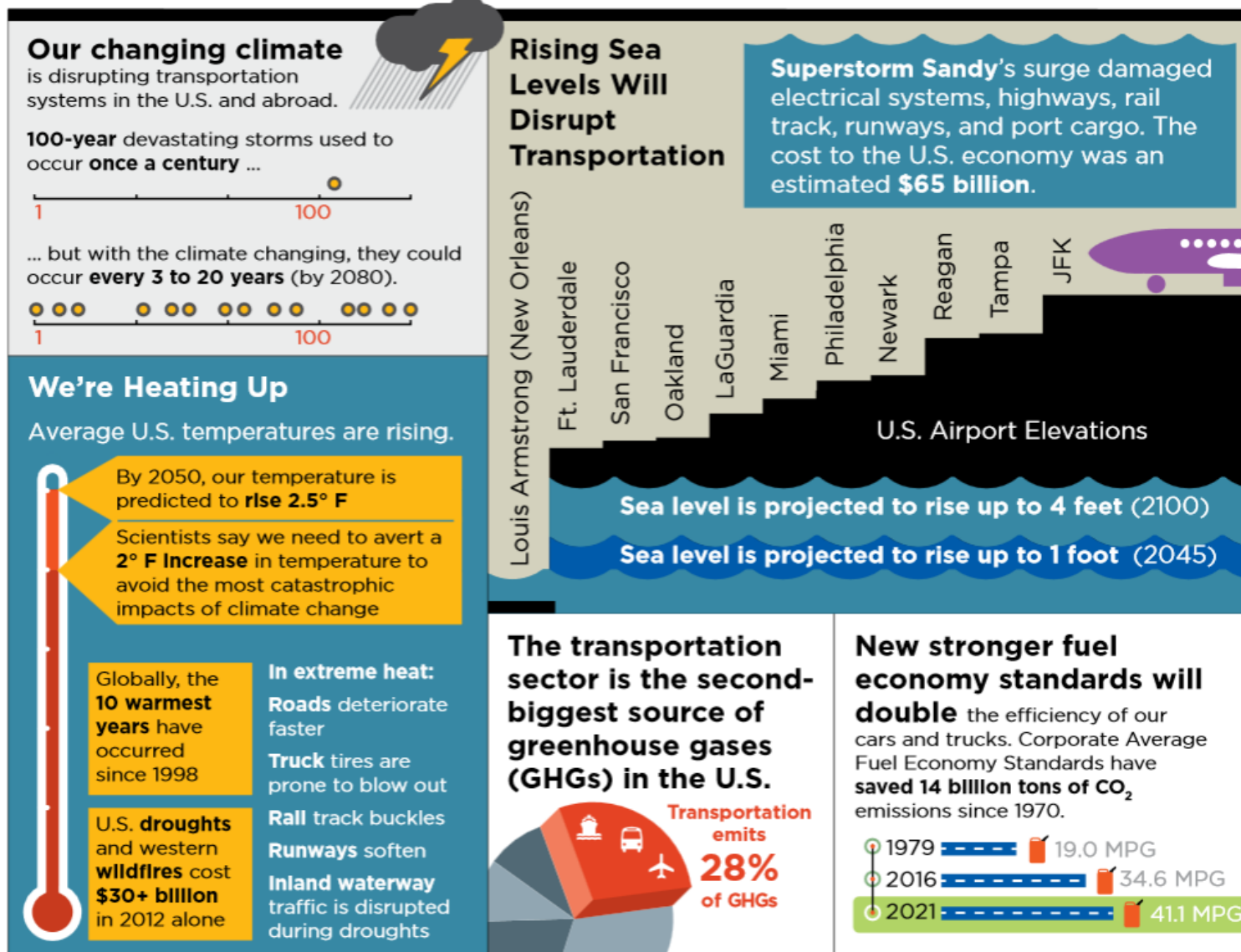
How will we move things?



How will we move better?



How will we adapt?





PARTNERSHIPS FOR TRANSPORTATION WORKFORCE DEVELOPMENT

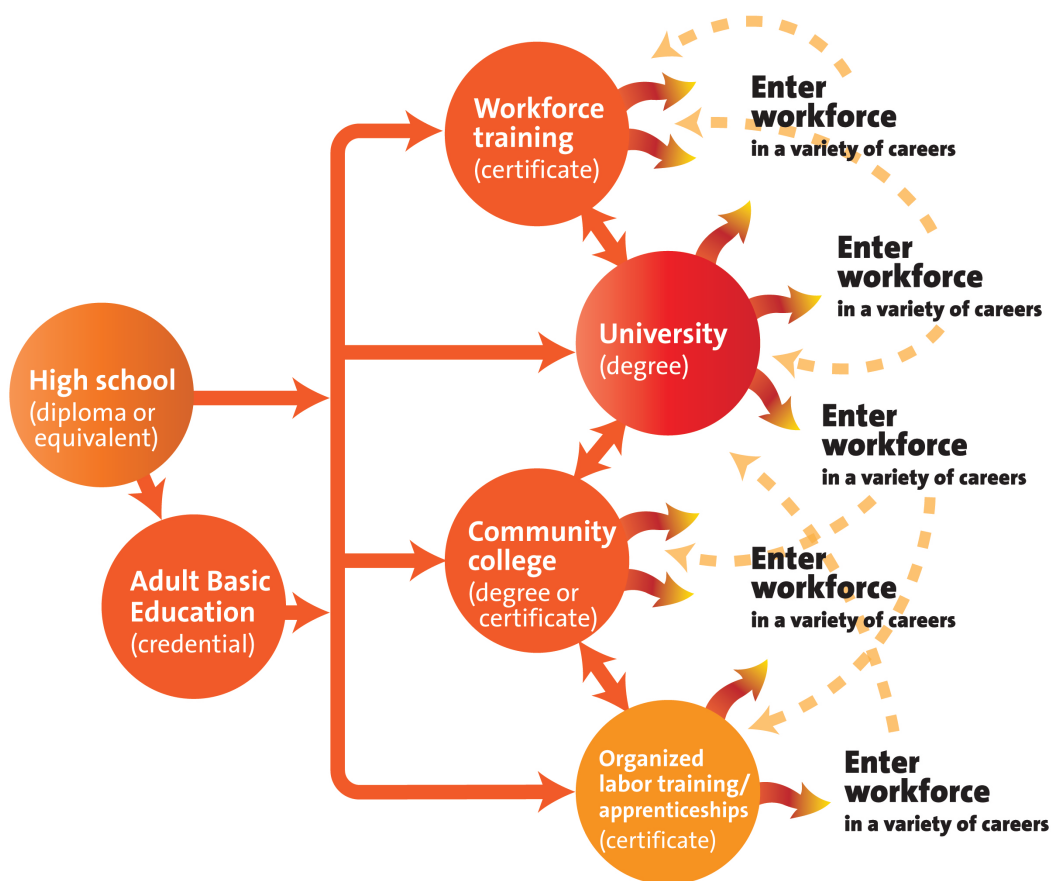


Pathways, Partnerships, and Clusters

	Historically	Today
Education	Train & Pray	Career Pathways
Workforce Development	Customized Business Training + Job Matching	Sector/Industry Partnerships
Economic Development	Business Attraction	Industry Clusters

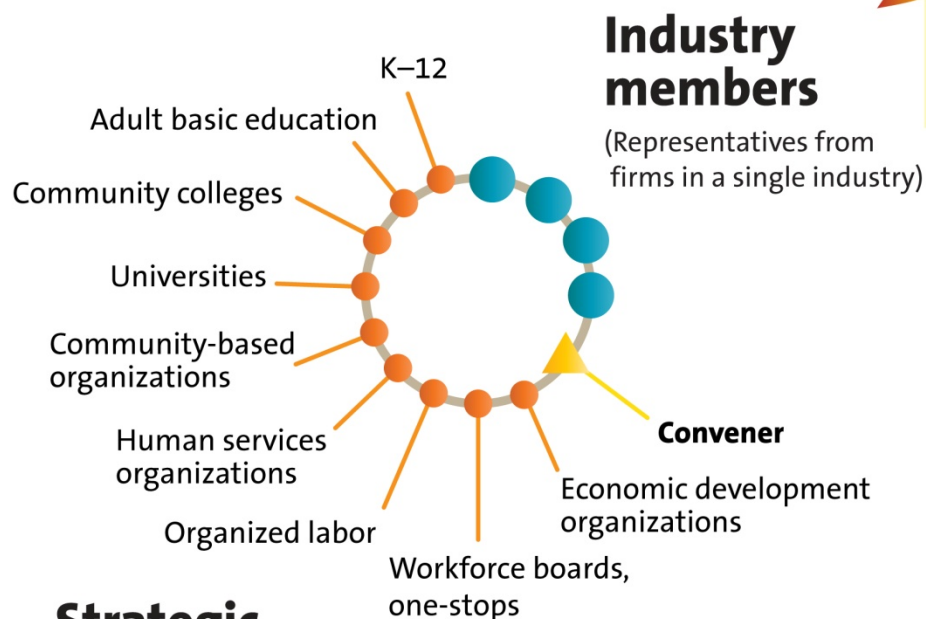


Career Pathways





Sector/Industry Partnership



Outcomes for Employers

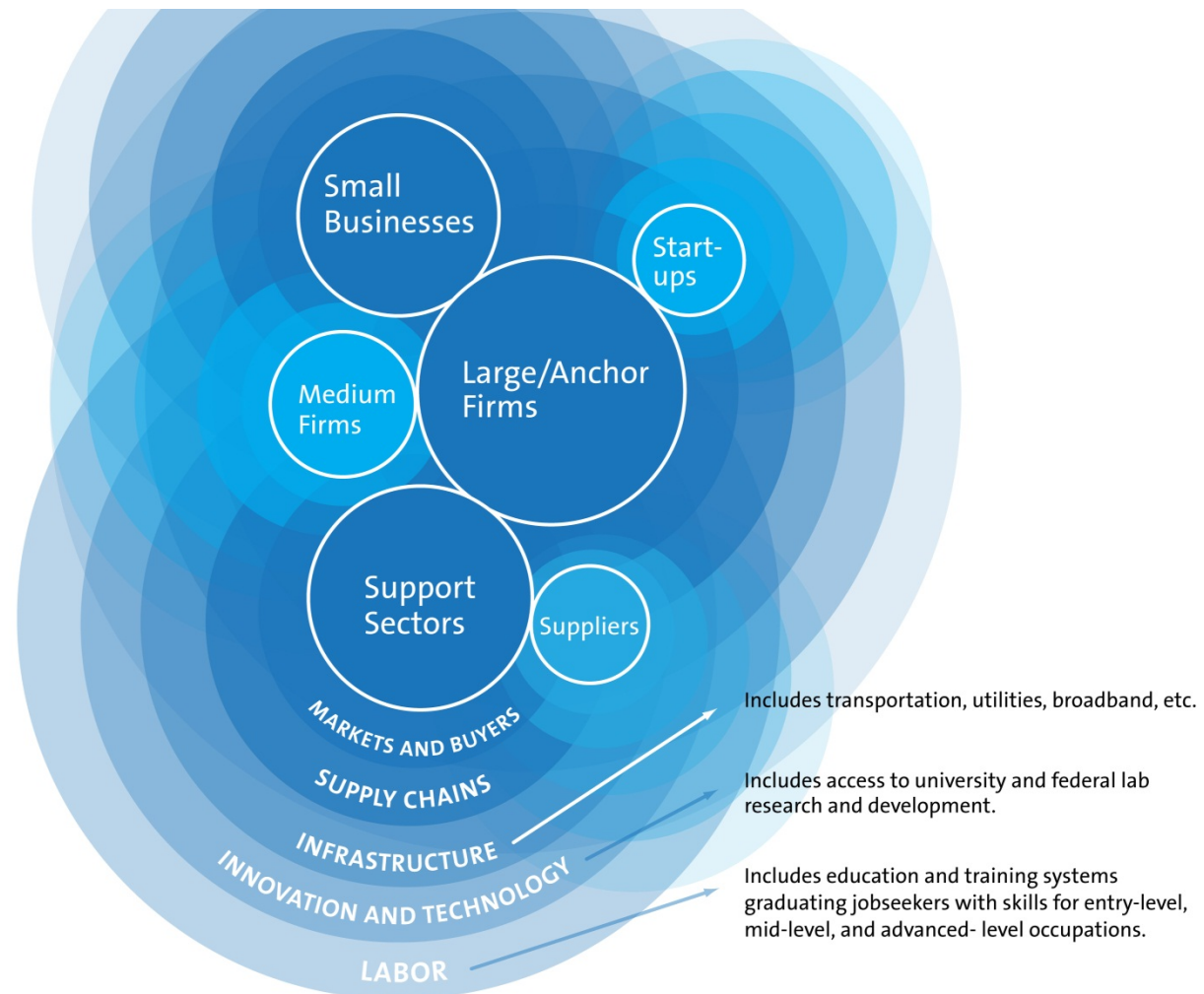
- 41% employers report reductions in turnover
- 84% employers report significant increases in productivity
- 100% employers report participation in Partnership was valuable

Outcomes for Workers

- 48% worker participants exited poverty
- 18% higher earnings
- more likely to work and in jobs with benefits



Industry Cluster





What works well (and not so well)

Clusters of companies
Employers as partners
Industry-driven
Regionally-based
Existing industry strength or emerging specialty
Industry competitiveness/growth
Opportunity-focused
Employer priorities first
Champion-driven
Coalitions of the willing
People and relationships
A disciplined, replicable process

Individual firms
Employers as customers
System- or institution-driven
Statewide top-down or too local
Wishful thinking
Workforce only
Problem-driven
Target populations first
Representation-oriented
The futile search for consensus
Organizations and jurisdictions
A mysterious, unique occurrence



All Partners want to know the WIIFM

- **Employers** – shared cost, a place to solve major talent issues, a single table at which to work with public entities.
- **Educators** – venue for faster understanding of changing industry needs; play out of educational career pathways.
- **Workforce Developers** – strategic focusing of time and resources for high leverage with key industries while meeting worker needs.
- **Economic Developers** – place for focused work with key industries on talent questions; can be major tool in retention and growth strategies.
- **States and Governors** – more strategic use of public resources; improved services to industry and jobseekers.

Possible Types of Partnerships

TYPE	DESCRIPTION	ATTRIBUTES of PARTNER's ROLES
Networking	Sharing information and ideas	<ul style="list-style-type: none"> Parties exchange basic information (e.g. contact info, organizational goals, intended outcomes, possible joint opportunities) Door open for follow-up opportunities
Cooperating/ Facilitating	Helping members accomplish their separate individual goals	<p>All of the networking attributes, plus:</p> <ul style="list-style-type: none"> Share advice, resources, information, and contacts to help with goal attainment in a spirit of cooperation May also include shared website information, promotional material and other media links
Coordinating	Working separately on shared goals	<p>All of the cooperating attributes, plus:</p> <ul style="list-style-type: none"> Identify shared, overlapping goals Coordinate efforts to mutual benefit with minimal duplication Sign letters of support or other public endorsement for projects and activities
Collaborating	Working together toward a common goal but maintaining separate resources and responsibilities	<p>All of the coordinating attributes, plus:</p> <ul style="list-style-type: none"> Agree on common and clearly articulated goals Define how actions and responsibilities of one party support efforts of the collaborator(s) Work is often done together, not separately
Full Partnership	Shared goals, decisions, and resources within a single entity	<p>All of the collaborating attributes, plus:</p> <ul style="list-style-type: none"> Signed document that defines roles, responsibilities and expectations for each partner Timelines and milestones for joint work, evaluation and retooling



Possible Products and Impacts of Partnerships

Outputs/Products

- Skills standards
- Competency models
- Career awareness campaigns
- Certification program
- Training programs
- Apprenticeship program
- Childcare support
- Career pathways
- Internships
- Low to middle skills
- Middle to high skills

Impacts

- Employment for job seekers
- Advancement for workers
- Reduced vacancy rates for employers
- Reduced time to hire
- Job creation
- Savings to public programs
- Stronger middle class



Possible Partner Roles

- Advocacy
- Apprenticeships
- Articulation agreement
- Career Pathway
- Convening
- Curriculum development
- Data collection—supply and demand
- Data sharing
- Employment Assistance
- Funding
- On-going communication
- Outreach and Marketing
- Supportive Services
- Training delivery
- Work experience

