

PUGET SOUND

REGIONAL ECONOMIC STRATEGY

AUGUST 3, 2011



TIP Strategies | www.tipstrategies.com | theory into practice

Agenda

2

- Occupational Analysis
- Strategic Discussion
- Project Update

3

Occupational Analysis

Deliverables outline

4

1 TALENT

- Labor market overview
- Occupational analysis
- Education & training

2 ECONOMY

- Economic assessment
- Benchmarking
- SWOT

3 STRATEGY

- Investment areas
- Programmatic response
- Measures

We are here

5

1 TALENT

- Labor market overview
- Occupational analysis
- Education & training

2 ECONOMY

- Economic assessment
- Benchmarking
- SWOT

3 STRATEGY

- Investment areas
- Programmatic response
- Measures

Order of tasks reflects the importance we place on the role of talent in economic vitality.

Definition of occupational clusters drives selection of peers, indicators, and recommendations

Employment summary

6

Counties	2011 Employment	2011 Median Hourly Earnings	2011-2021 Projected Change in the Job Base	
			Net Chg.	Pct Chg.
King	1,472,666	\$23.19	+144,860	+10%
Kitsap	122,928	\$19.11	+10,048	+8%
Pierce	374,964	\$19.12	+34,088	+9%
Snohomish	322,405	\$18.61	+28,089	+9%
PSRC region	2,292,963	\$21.66	+217,085	+9%

EMSI Complete Employment - 2011.2; TIP Strategies, Inc.



Employment by occupation, 2011

4-COUNTY PSRC REGION

7

Occupational Group	2011
Office & administrative support	294,629
Sales & related	286,330
Management	151,578
Food preparation & serving	148,362
Business & financial operations	142,010
Transportation & material moving	125,679
Education, training, & library	108,922
Computer & mathematical science	107,232
Construction & extraction	105,229
Production	101,539
Healthcare (practitioners & technical)	95,293
Personal care & service	89,482
Arts, design, entertainment, sports, & media	86,092
Property cleaning & maintenance	79,467
Installation, maintenance, & repair	70,105
Architecture & engineering	62,167
Military	59,260
Healthcare (support)	45,225
Life, physical, & social science	37,045
Community & social services	34,784
Protective service	34,663
Legal	20,881
Farming, fishing, & forestry	6,987

Employment by occupation, 2011

DISTRIBUTION BY COUNTY

8

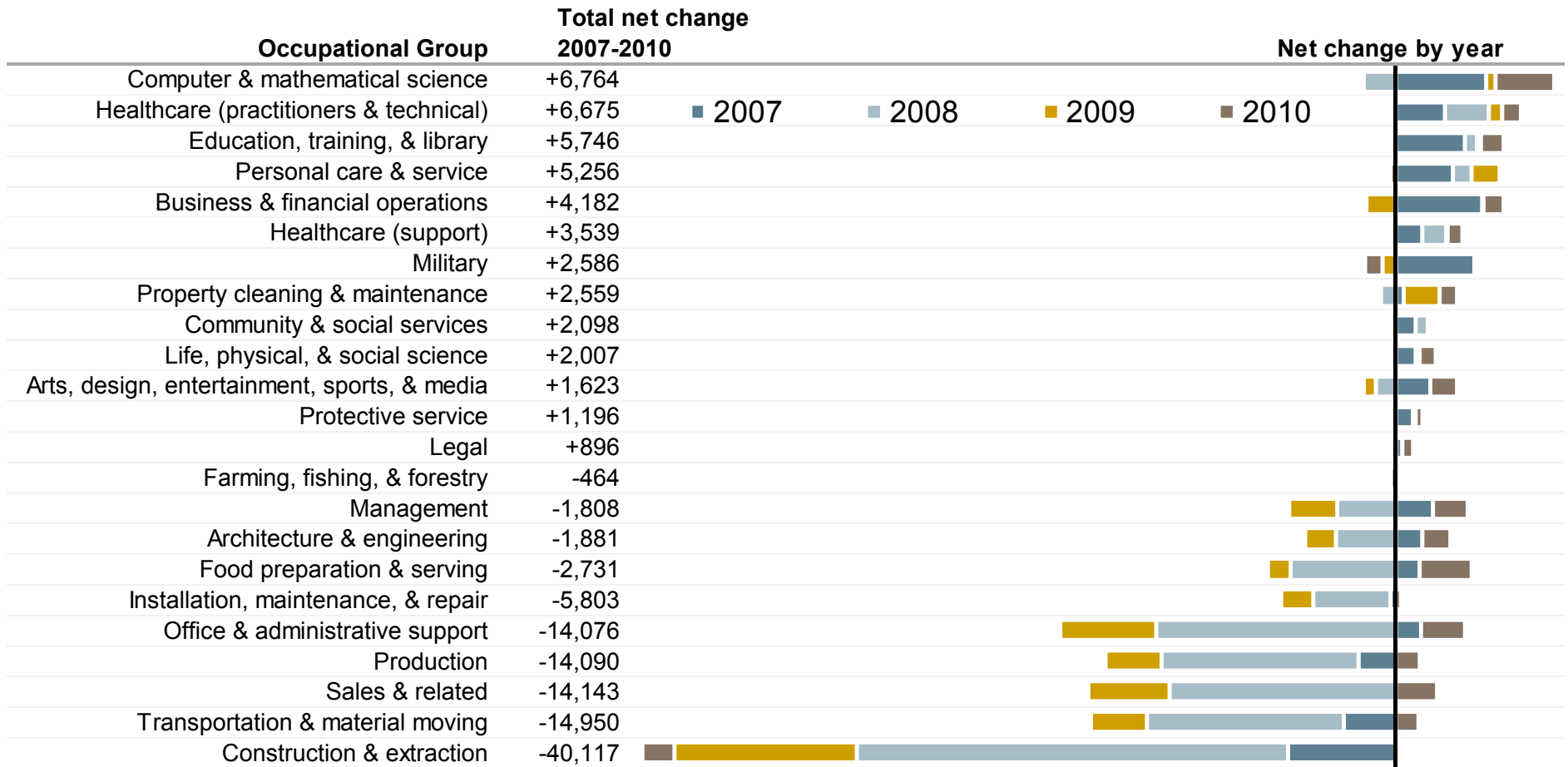
Occupational Groups as a Share of Total Employment Within Each County

Occupational Group	2011	King	Kitsap	Pierce	Snohomish
Office & administrative support	294,629	13%	11%	13%	12%
Sales & related	286,330	13%	12%	12%	13%
Management	151,578	7%	5%	5%	7%
Food preparation & serving	148,362	6%	7%	7%	7%
Business & financial operations	142,010	7%	5%	4%	6%
Transportation & material moving	125,679	6%	4%	6%	5%
Education, training, & library	108,922	5%	5%	6%	4%
Computer & mathematical science	107,232	6%	2%	1%	3%
Construction & extraction	105,229	4%	6%	5%	6%
Production	101,539	4%	4%	4%	7%
Healthcare (practitioners & technical)	95,293	4%	4%	5%	4%
Personal care & service	89,482	4%	4%	4%	4%
Arts, design, entertainment, sports, & media	86,092	4%	3%	2%	3%
Property cleaning & maintenance	79,467	3%	3%	4%	4%
Installation, maintenance, & repair	70,105	3%	4%	3%	3%
Architecture & engineering	62,167	3%	3%	1%	4%
Military	59,260	<1%	10%	9%	2%
Healthcare (support)	45,225	2%	3%	2%	2%
Life, physical, & social science	37,045	2%	1%	1%	1%
Community & social services	34,784	1%	2%	2%	1%
Protective service	34,663	1%	2%	2%	1%
Legal	20,881	1%	1%	1%	1%
Farming, fishing, & forestry	6,987	<1%	<1%	<1%	<1%

PSRC Region: recession & recovery

CHANGES BY OCCUPATIONAL GROUP

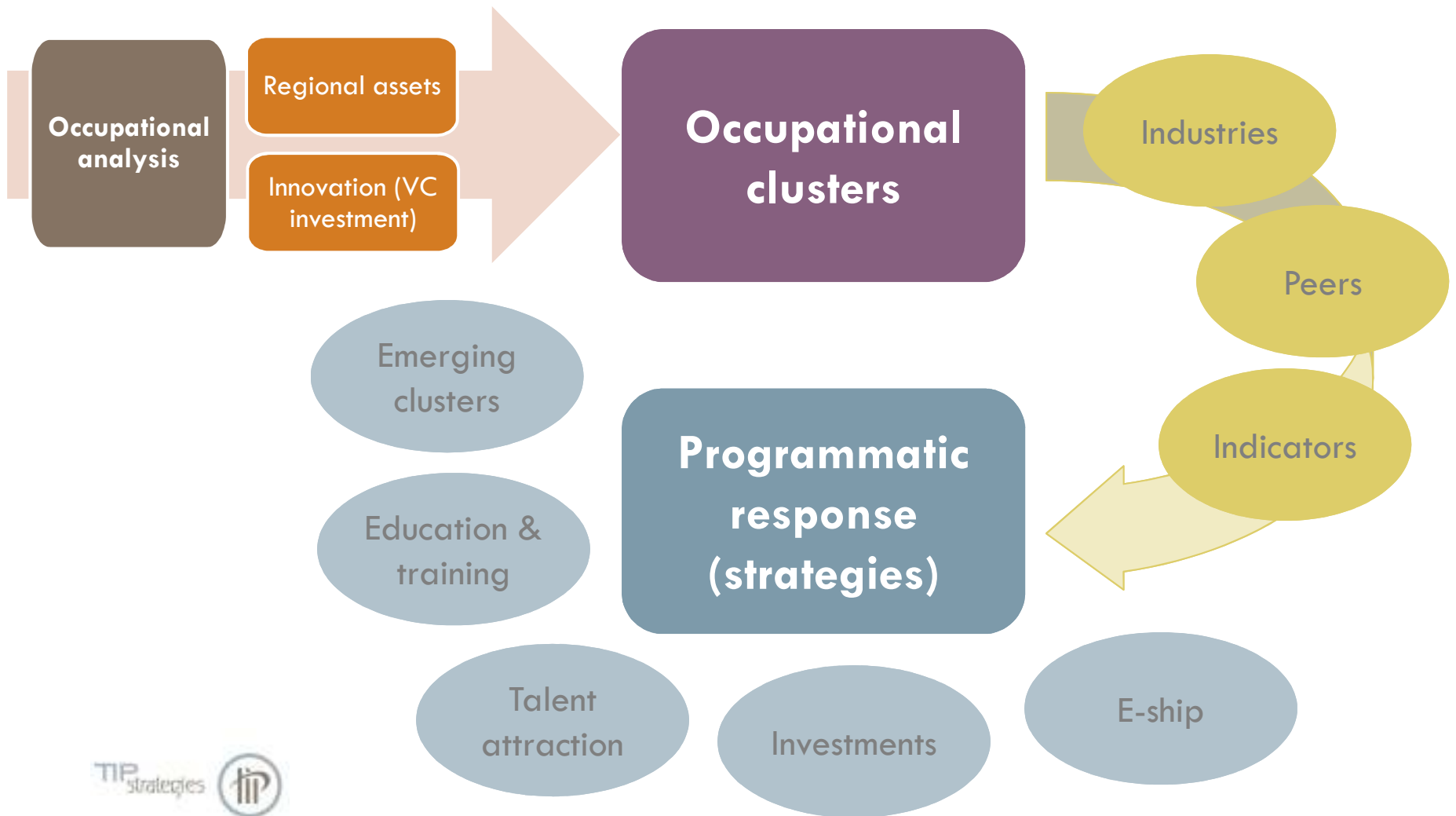
9



Overview of our approach

OCCUPATIONAL ANALYSIS

10



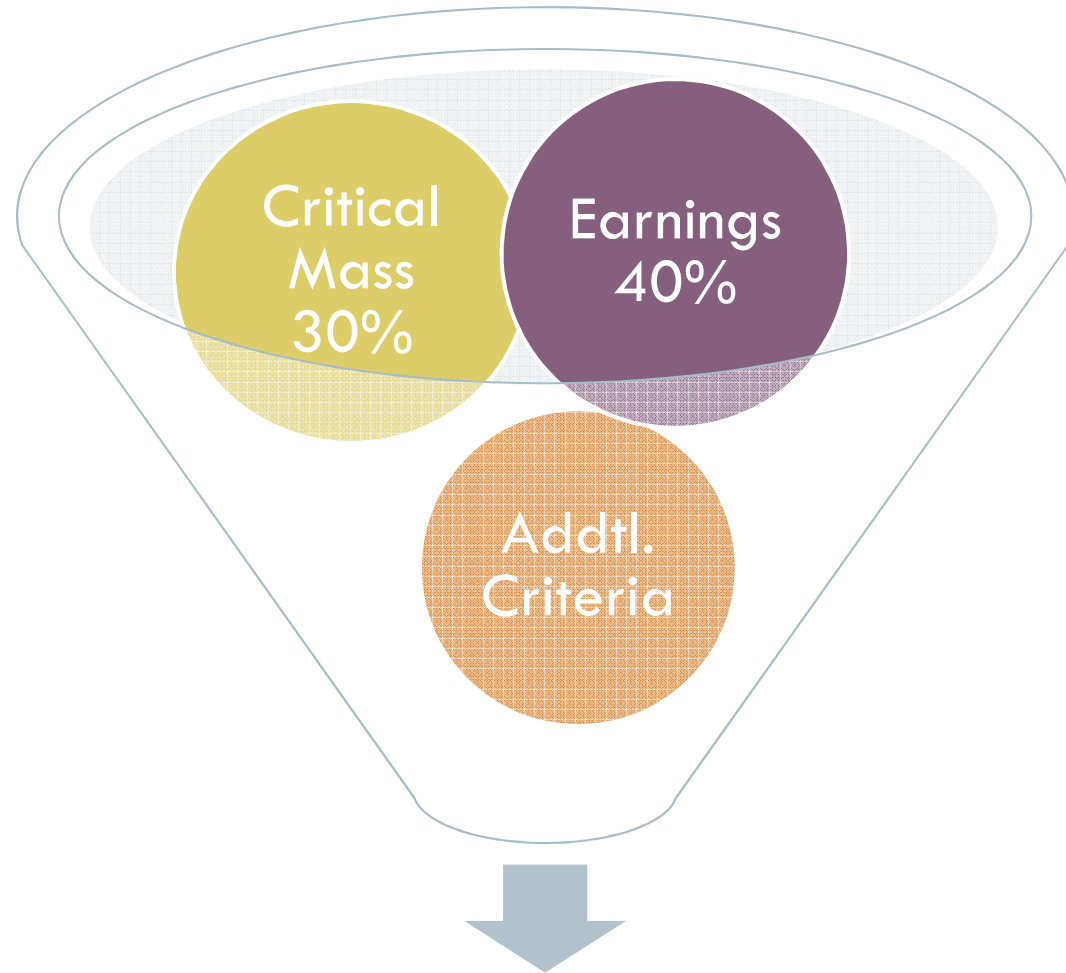
Defining an occupational “short-list”

OCCUPATIONAL ANALYSIS

11

8 criteria used to filter 751 occupations.

Must meet first two criteria to reach 75 point minimum.



248 Priority Occupations

Defining an occupational “short-list”

OCCUPATIONAL ANALYSIS

12

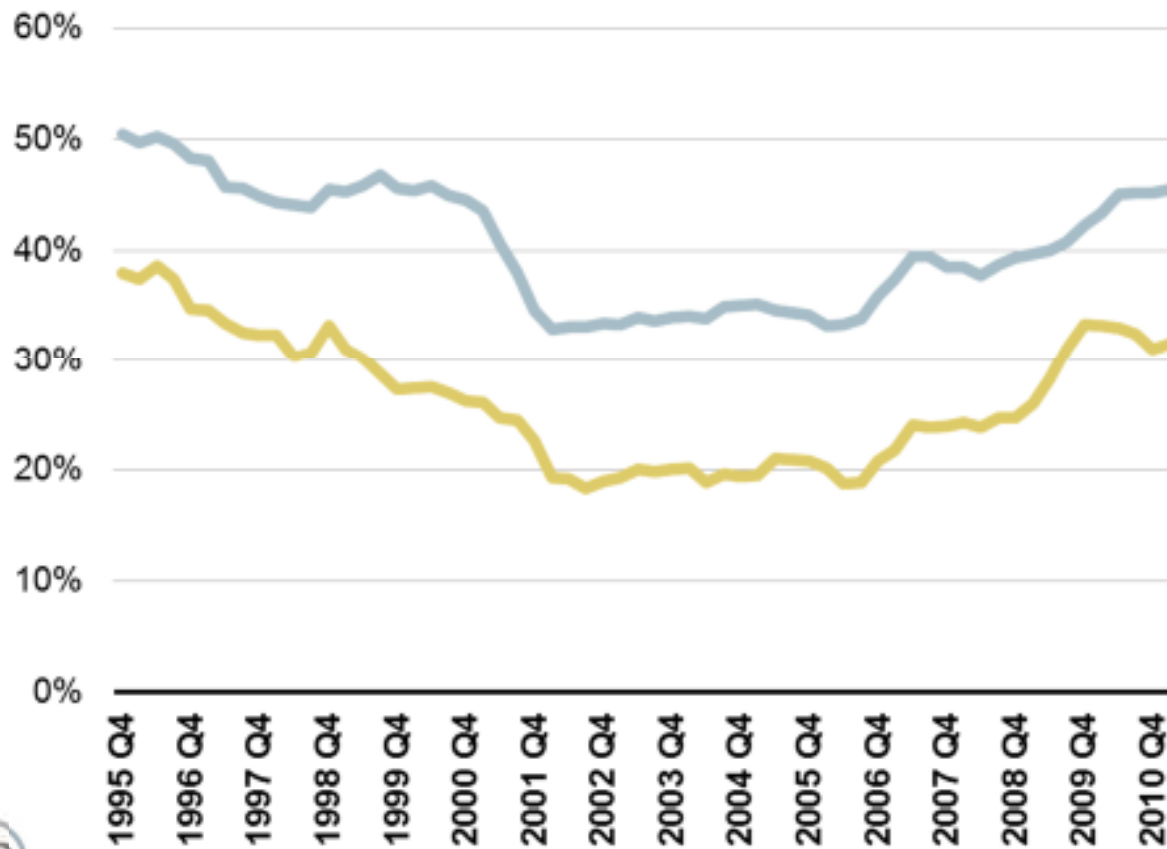
	Objective	Measure	Weight	Threshold
1	Job quality	Relative median earnings, 2011	40%	≥ 100 of region
2	Critical mass	Employment level, 2011	30%	> 200 jobs
3	Relative advantage	Location quotient, 2011	15%	Above US average (>1.0)
4	Momentum	LQ momentum, 2001-2021	7%	Strengthening over 20-yr cycle
5	Regional outlook	Proj. job growth, 2011-2021	2%	Positive projection 2011-2021
6	Job stability	Job volatility, 2002-2010	2%	Historic job change by percentiles
7	National outlook	Bright outlook	2%	USDOL identified
8	Green job	Green applications	2%	USDOL identified

Historic venture capital trends

WASHINGTON STATE

13

- Start-up & early stage funding as a share of total VC \$ volume
- Start-up & early stage ventures as a share of total completed VC deals



SOURCE: PricewaterhouseCoopers (historical data for Washington State)

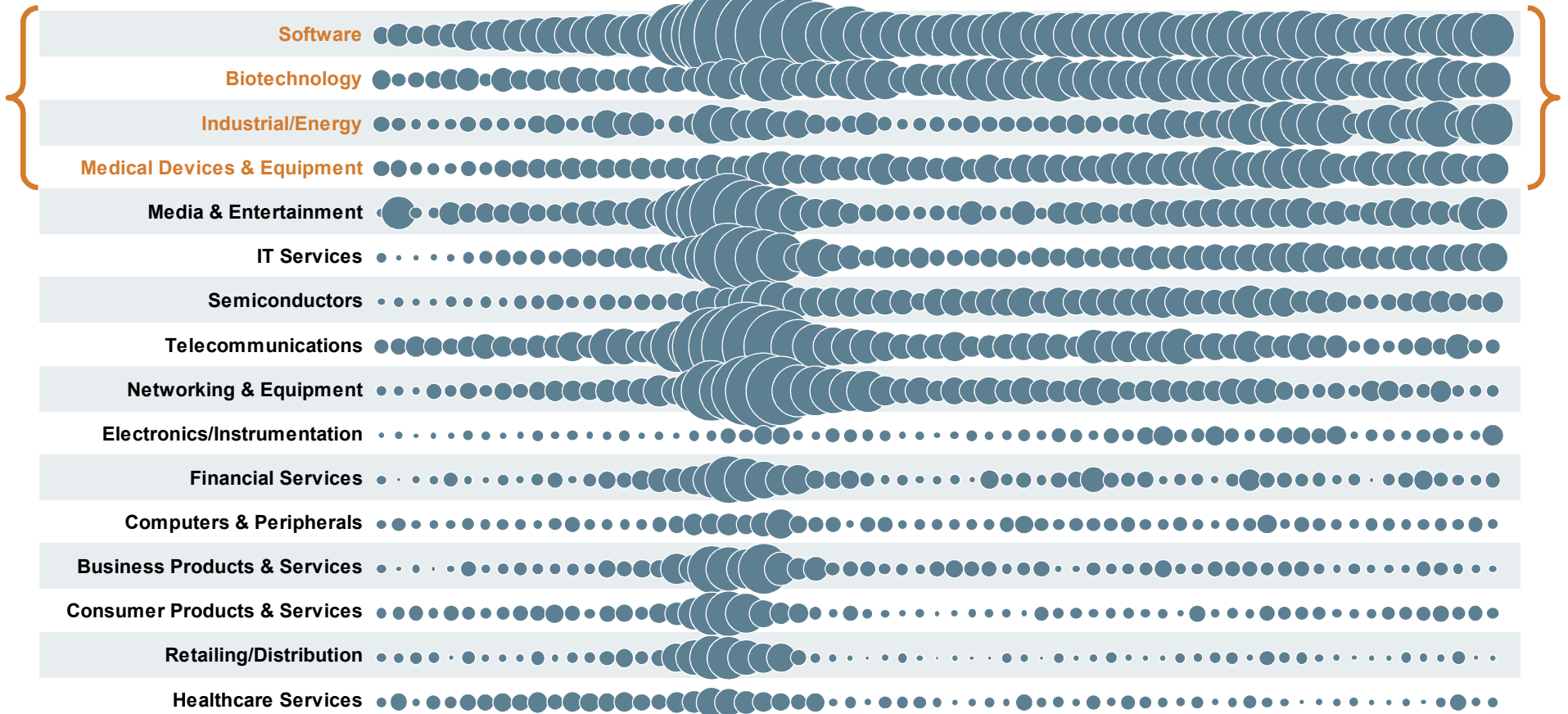
Historic VC trends by industry

WASHINGTON STATE

14

1995 Q1 ▶

◀ 2011 Q1

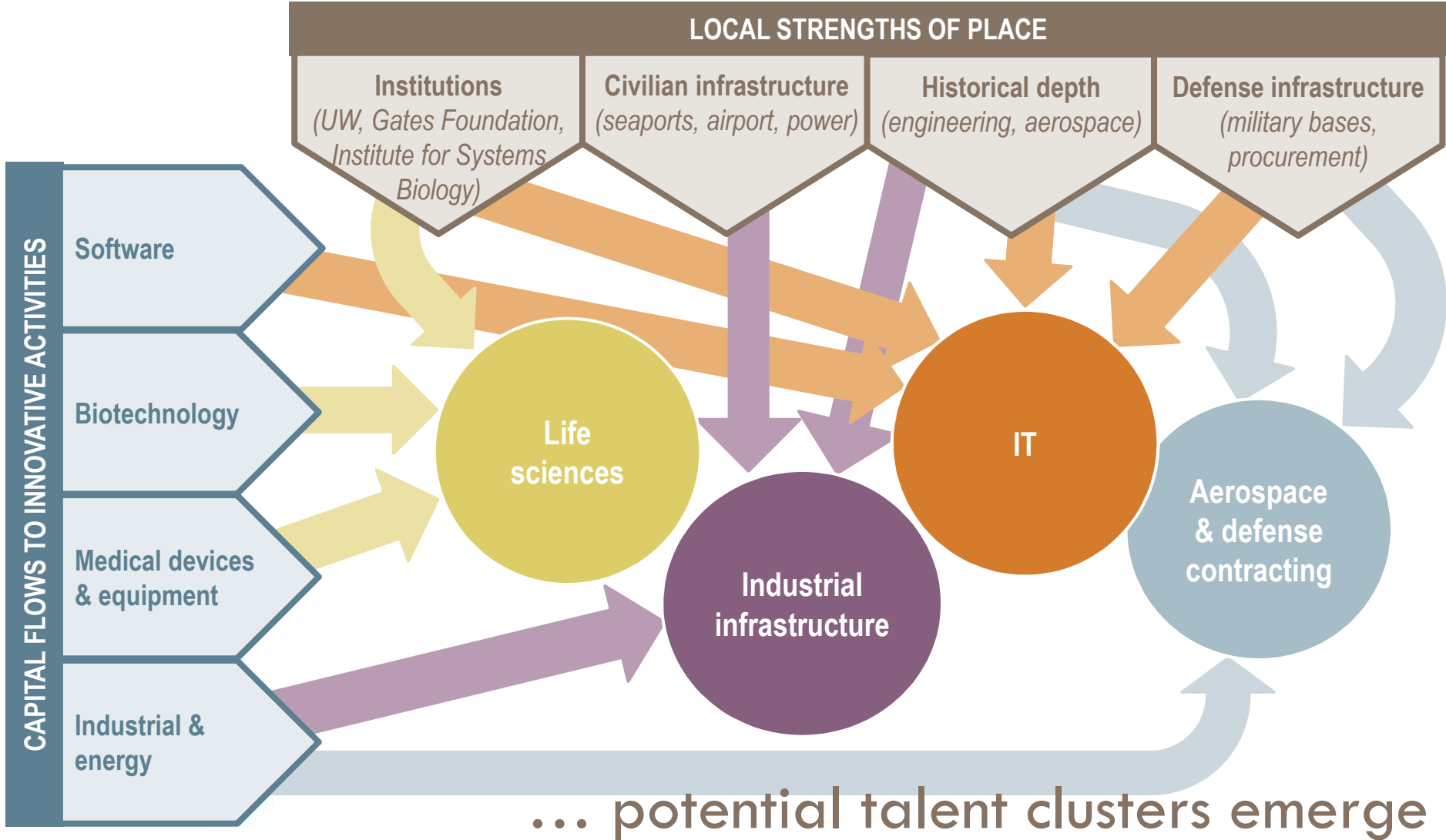


Bubble sizes represent relative spending levels.

SOURCE: PricewaterhouseCoopers (historical data for Washington State)

Matching assets & capital flows...

OCCUPATIONAL ANALYSIS



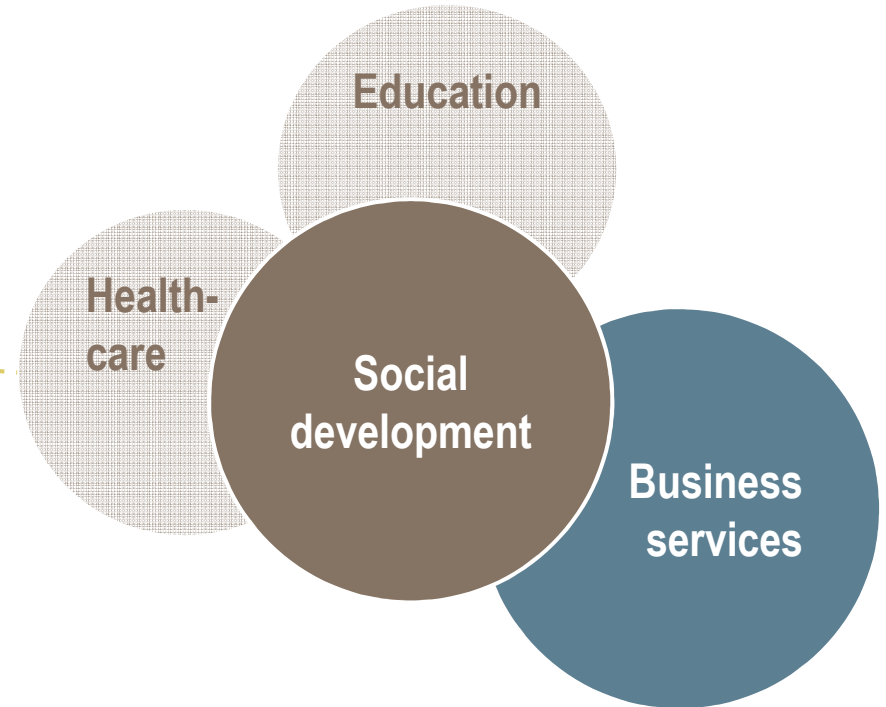
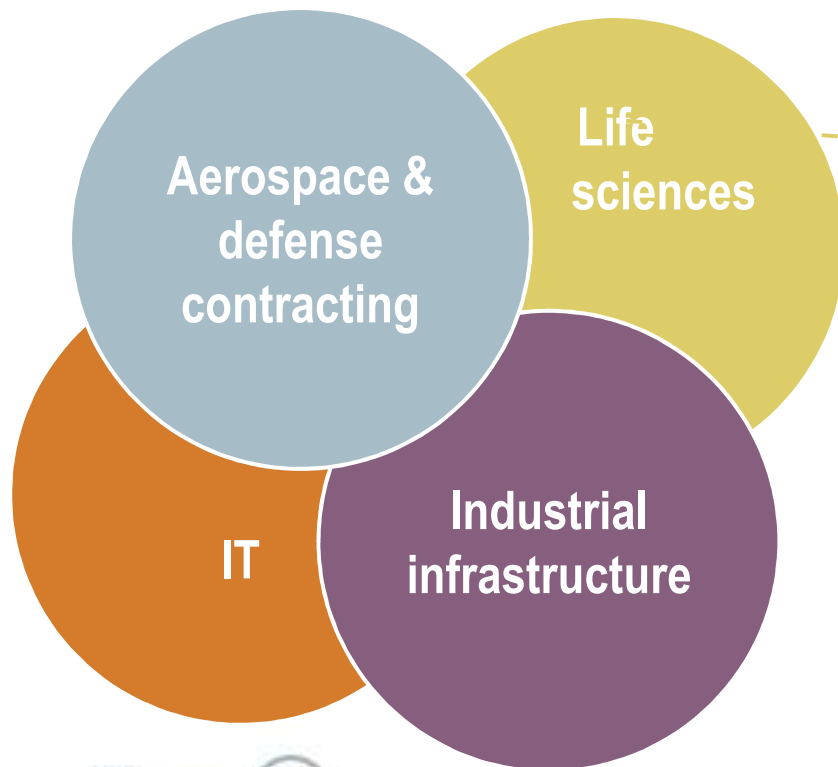
Direct and indirect talent clusters

OCCUPATIONAL ANALYSIS

16

INNOVATION DRIVEN CLUSTERS

About half (125) of the 248 occupations our methodology identified fit easily into this framework of innovative clusters.



SUPPORT CLUSTERS

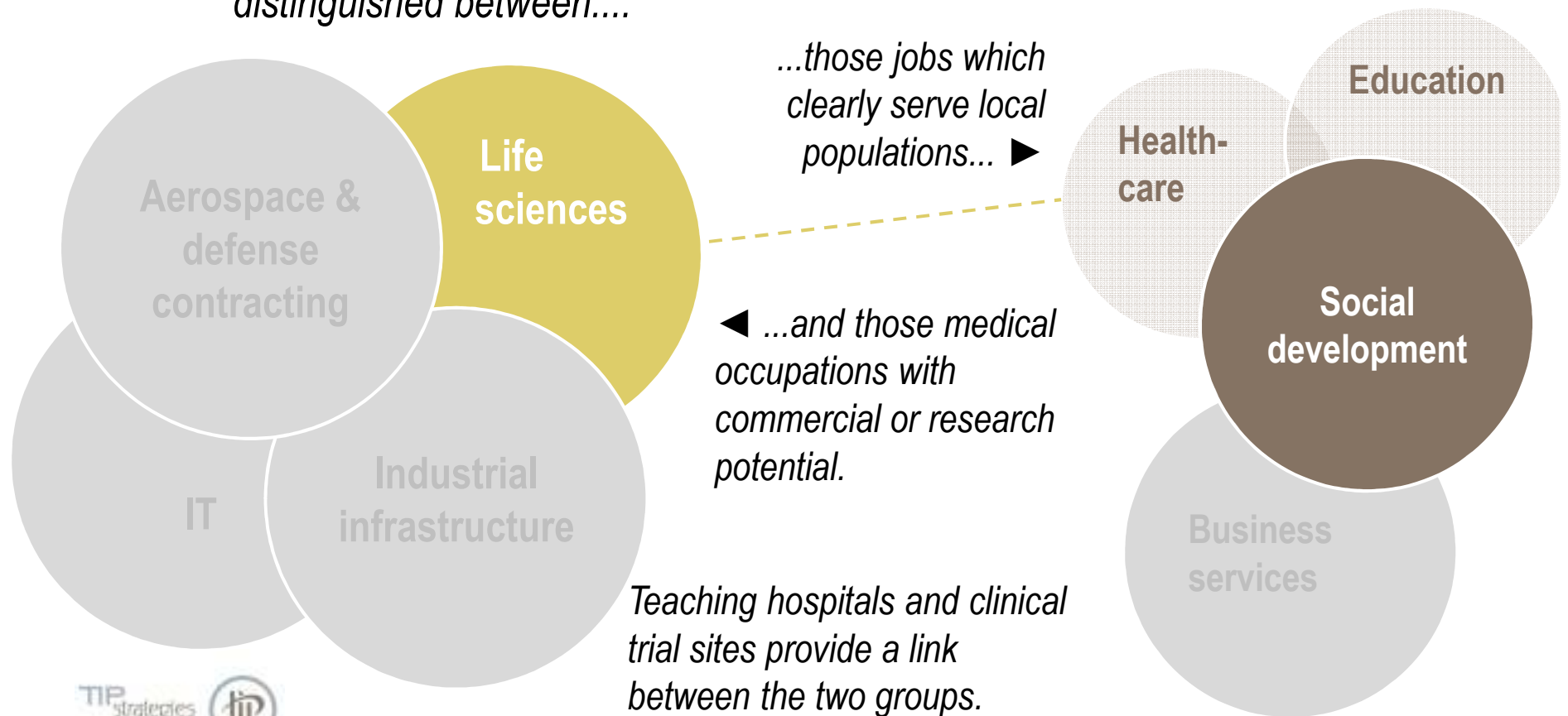
Of the remaining 123 occupations that met the criteria in TIP's methodology, we were able to carve out two key areas of support services.

Healthcare workers

OCCUPATIONAL ANALYSIS

17

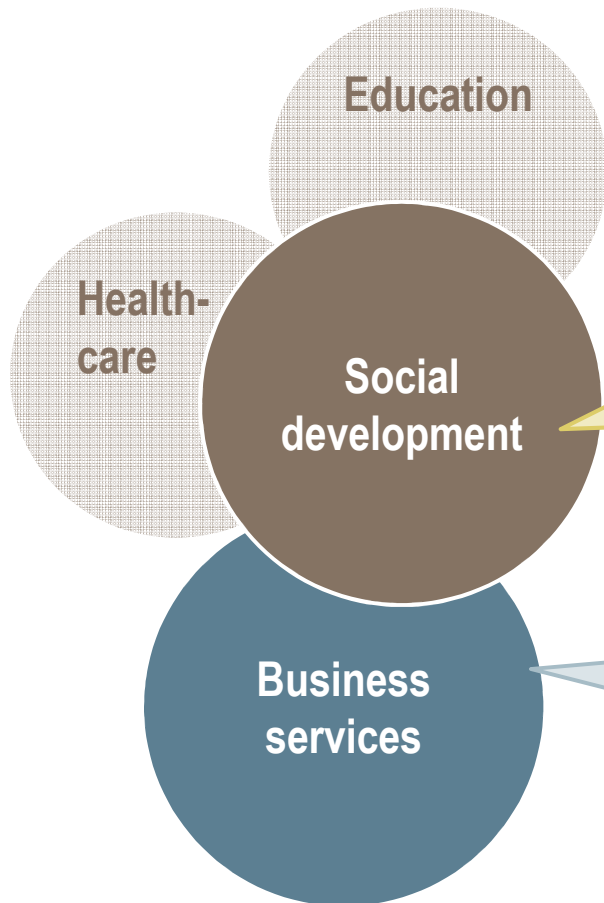
Occupations associated with health and well-being are distinguished between....



Support clusters

OCCUPATIONAL ANALYSIS

18



Social development occupations -- primarily comprised of healthcare and education workers -- can often be found working for institutional employers like schools, universities, clinics, and hospitals. These institutions are vital to the region's success because they nourish and develop a healthy, well-educated workforce.

Miscellaneous **business services** occupations -- activities like finance, law, marketing, and advertising -- are also grouped together. These important services support, rather than drive, the region's innovative potential.

IT talent cluster

4-COUNTY PSRC REGION

19

KEY CRITERIA

SOC	Occupation	Cluster Score	Total jobs in 2011	Median hourly wage in 2011	Location Quotient in 2011
15-1032	Computer software engineers, systems software	100	16,664	\$45.66	2.92
15-1099	Computer specialists, all other	100	7,303	\$38.42	2.48
17-2072	Electronics engineers, except computer	100	3,598	\$43.14	1.95
15-1011	Computer and information scientists, research	98	1,592	\$49.88	3.93
15-1031	Computer software engineers, applications	98	23,531	\$43.40	3.20
15-1041	Computer support specialists	98	9,580	\$23.07	1.27
15-1051	Computer systems analysts	98	13,148	\$36.47	1.64
15-1061	Database administrators	98	2,207	\$38.23	1.46
15-1071	Network and computer systems administrators	98	8,629	\$36.60	1.81
15-1081	Network systems & data comm. analysts	98	11,710	\$34.20	2.17
17-1021	Cartographers and photogrammetrists	98	271	\$32.34	1.60
17-3031	Surveying and mapping technicians	98	1,236	\$21.84	1.28
11-3021	Computer and information systems managers	96	7,505	\$56.48	1.78
17-2061	Computer hardware engineers	96	1,004	\$47.52	1.12
27-3042	Technical writers	96	1,462	\$37.96	2.14
49-2022	Telecomm. equip. installer & repairer, excpt line	96	2,846	\$27.06	1.01
15-1021	Computer programmers	94	11,055	\$40.82	1.93
49-9069	Precision instrument & equip. repairers, all other	89	300	\$27.06	1.30
17-1022	Surveyors	83	697	\$34.75	1.00

EMSI Complete Employment - 2011.2; TIP Strategies, Inc.



IT talent cluster

4-COUNTY PSRC REGION

20

DEMAND & VOLATILITY

SOC	Occupation	Average annual net job growth		Certified H1B apps in FY2010	Apps exceed avg. annual job growth?	Job volatility (percentile)
		2001-11	2011-21			
15-1032	Computer software engineers, systems software	+293	+314	3,078	◀	76 ██████████
15-1099	Computer specialists, all other	+99	+70	483	◀	42 ████████
17-2072	Electronics engineers, except computer	-49	+9	50	◀	67 ██████████
15-1011	Computer and information scientists, research	+38	+31	56	◀	55 ██████████
15-1031	Computer software engineers, applications	+493	+490	1,106	◀	75 ██████████
15-1041	Computer support specialists	+110	+151	18		57 ██████████
15-1051	Computer systems analysts	+179	+201	875	◀	68 ██████████
15-1061	Database administrators	+27	+37	105	◀	65 ██████████
15-1071	Network and computer systems administrators	+129	+193	108		61 ██████████
15-1081	Network systems & data comm. analysts	+344	+423	28		63 ██████████
17-1021	Cartographers and photogrammetrists	+5	+5			37 ██████
17-3031	Surveying and mapping technicians	+16	+15			65 ██████████
11-3021	Computer and information systems managers	+94	+105	67		63 ██████████
17-2061	Computer hardware engineers	+0	+12	17	◀	76 ██████████
27-3042	Technical writers	+15	+13	8		75 ██████████
49-2022	Telecomm. equip. installer & repairer, excpt line	-109	+28			66 ██████████
15-1021	Computer programmers	+27	-59	689	◀	72 ██████████
49-9069	Precision instrument & equip. repairers, all other	-1	+1			17 ███
17-1022	Surveyors	+5	+4			69 ██████████

EMSI Complete Employment - 2011.2; TIP Strategies, Inc.



Replacement jobs

PART OF THE ANSWER?

21

SOC Code	Description	Estimated Replacements 2011-2021	Estimated Annual Replacements
15-1011	Computer and information scientists, research	654	65
15-1021	Computer programmers	2,191	219
15-1031	Computer software engineers, applications	6,880	688
15-1032	Computer software engineers, systems software	4,545	454
15-1041	Computer support specialists	4,161	416
15-1051	Computer systems analysts	4,844	484
15-1061	Database administrators	742	74
15-1071	Network and computer systems administrators	3,367	337
15-1081	Network systems and data communications analysts	6,334	633
15-1099	Computer specialists, all other	2,273	227

IT talent cluster

4-COUNTY PSRC REGION

NATIONAL FACTORS

22

SOC	Occupation	Bright outlook	Green potential	Self-employment rate	Share with bachelor's or higher
15-1032	Computer software engineers, systems software	YES	YES	3% ■	>75% ██████████
15-1099	Computer specialists, all other	YES	YES	4% ■	65% ████████
17-2072	Electronics engineers, except computer	YES	YES	2%	>75% ██████████
15-1011	Computer and information scientists, research	YES		5% ■	65% ████████
15-1031	Computer software engineers, applications	YES		3% ■	>75% ██████████
15-1041	Computer support specialists	YES		1%	41% █████
15-1051	Computer systems analysts	YES		6% ■■	65% ████████
15-1061	Database administrators	YES		1%	69% ██████████
15-1071	Network and computer systems administrators	YES		1%	50% ██████
15-1081	Network systems & data comm. analysts	YES		19% ██████	56% ████████
17-1021	Cartographers and photogrammetrists	YES		3% ■	75% ██████████
17-3031	Surveying and mapping technicians	YES		6% ■■	7% ■
11-3021	Computer and information systems managers			3% ■	70% ██████████
17-2061	Computer hardware engineers			1%	72% ██████████
27-3042	Technical writers			2%	74% ██████████
49-2022	Telecomm. equip. installer & repairer, excpt line			4% ■	13% ■
15-1021	Computer programmers			6% ■■	70% ██████████
49-9069	Precision instrument & equip. repairers, all other			16% ██████	19% ■■
17-1022	Surveyors	YES		3% ■	75% ██████████

EMSI Complete Employment - 2011.2; TIP Strategies, Inc.



Global IT talent clusters

PEER IDENTIFICATION

23



Life sciences talent cluster

4-COUNTY PSRC REGION

24

KEY CRITERIA

SOC	Occupation	Cluster Score	Total jobs in 2011	Median hourly wage in 2011	Location Quotient in 2011
41-4011	Sales reps, whsl & mfg., tech. & scientific prod.	100	8,663	\$35.15	1.52
49-9062	Medical equipment repairers	98	803	\$23.40	1.34
29-1121	Audiologists	98	290	\$30.38	1.59
29-2099	Healthcare technologists & technicians, all other	98	1,945	\$22.54	1.52
29-1031	Dietitians and nutritionists	96	1,078	\$26.66	1.07
29-1081	Podiatrists	96	329	\$35.70	1.12
11-9121	Natural sciences managers	93	895	\$57.07	1.42
15-2011	Actuaries	91	397	\$39.01	1.49
15-2041	Statisticians	91	561	\$31.36	1.67
17-2031	Biomedical engineers	91	396	\$35.60	1.74
19-1022	Microbiologists	91	276	\$27.62	1.18
19-1023	Zoologists and wildlife biologists	91	1,031	\$28.94	4.09
19-1029	Biological scientists, all other	91	904	\$27.84	2.12
19-1042	Medical scientists, except epidemiologists	91	4,178	\$29.61	2.70
29-1069	Physicians and surgeons	83	9,830	\$74.33	0.89
29-2011	Medical and clinical laboratory technologists	83	1,988	\$29.99	0.90
29-9099	Healthcare practitioners & techworkers, all other	83	380	\$24.31	0.49
19-1021	Biochemists and biophysicists	76	216	\$24.15	0.63

Life sciences talent cluster

4-COUNTY PSRC REGION

DEMAND & VOLATILITY

25

SOC	Occupation	Average annual net job growth		Certified H1B apps in FY2010	Apps exceed avg. annual job growth?	Job volatility (percentile)
		2001-11	2011-21			
41-4011	Sales reps, whlsI & mfg., tech. & scientific prod.	+37	+114	3		48 ■■■■■■
49-9062	Medical equipment repairers	+11	+22			8 ■
29-1121	Audiologists	+7	+6	3		11 ■
29-2099	Healthcare technologists & technicians, all other	+33	+35			10 ■
29-1031	Dietitians and nutritionists	+17	+14			6 ■
29-1081	Podiatrists	+9	+4	3		48 ■■■■■■
11-9121	Natural sciences managers	+9	+8	5		14 ■■
15-2011	Actuaries	+0	+4	5	◀	38 ■■■■
15-2041	Statisticians	+6	+5	45	◀	14 ■■
17-2031	Biomedical engineers	+19	+23	16		34 ■■■■
19-1022	Microbiologists	+2	+2	7	◀	20 ■■
19-1023	Zoologists and wildlife biologists	+11	+3			7 ■
19-1029	Biological scientists, all other	+17	+9	82	◀	22 ■■
19-1042	Medical scientists, except epidemiologists	+111	+140	36		22 ■■
29-1069	Physicians and surgeons	+158	+159	57		15 ■■
29-2011	Medical and clinical laboratory technologists	+27	+27	14		4
29-9099	Healthcare practitioners & techworkers, all other	+7	+6	8	◀	2
19-1021	Biochemists and biophysicists	+4	+6	33	◀	49 ■■■■■■

EMS I Complete Employment - 2011.2; TIP Strategies, Inc.

Life sciences talent cluster

4-COUNTY PSRC REGION

NATIONAL FACTORS

26

SOC	Occupation	Bright outlook	Green potential	Self-employment rate	Share with bachelor's or higher
41-4011	Sales reps, whlsl & mfg., tech. & scientific prod.	YES	YES	4% ■	47% ■■■■■
49-9062	Medical equipment repairers	YES		16% ■■■■	19% ■■
29-1121	Audiologists	YES		1%	>75% ■■■■■■■■
29-2099	Healthcare technologists & technicians, all other	YES		6% ■■	29% ■■■■
29-1031	Dietitians and nutritionists			9% ■■	66% ■■■■■■
29-1081	Podiatrists			19% ■■■■	>75% ■■■■■■■■
11-9121	Natural sciences managers	YES	YES	0%	>75% ■■■■■■■■
15-2011	Actuaries	YES		0%	>75% ■■■■■■■■
15-2041	Statisticians	YES		3% ■	>75% ■■■■■■■■
17-2031	Biomedical engineers	YES		3% ■	74% ■■■■■■
19-1022	Microbiologists	YES		3% ■	>75% ■■■■■■■■
19-1023	Zoologists and wildlife biologists		YES	3% ■	>75% ■■■■■■■■
19-1029	Biological scientists, all other	YES		3% ■	>75% ■■■■■■■■
19-1042	Medical scientists, except epidemiologists	YES		3% ■	>75% ■■■■■■■■
29-1069	Physicians and surgeons	YES		12% ■■■	>75% ■■■■■■■■
29-2011	Medical and clinical laboratory technologists	YES		0%	52% ■■■■
29-9099	Healthcare practitioners & techworkers, all other	YES		1%	62% ■■■■■■
19-1021	Biochemists and biophysicists	YES		3% ■	>75% ■■■■■■■■

EMSI Complete Employment - 2011.2; TIP Strategies, Inc.

Global life sciences talent clusters

PEER IDENTIFICATION

27



Aerospace & defense talent cluster

4-COUNTY PSRC REGION

28

KEY CRITERIA

SOC	Occupation	Cluster Score	Total jobs in 2011	Median hourly wage in 2011	Location Quotient in 2011
11-9041	Engineering managers	100	3,481	\$57.90	1.48
17-2141	Mechanical engineers	100	4,588	\$39.58	1.44
17-3024	Electro-mechanical technicians	100	242	\$27.98	1.17
17-3029	Engineering techs except drafters, all other	100	2,549	\$33.67	2.74
17-2112	Industrial engineers	98	4,008	\$38.49	1.38
17-2161	Nuclear engineers	98	567	\$40.01	1.99
17-3027	Mechanical engineering technicians	98	934	\$28.09	1.63
17-2071	Electrical engineers	98	2,517	\$39.78	1.23
27-1021	Commercial and industrial designers	98	1,180	\$21.77	1.65
49-2094	Electrical & electronics repairers, commercial & i	98	1,193	\$32.28	1.26
17-3026	Industrial engineering technicians	96	1,250	\$30.65	1.42
19-2012	Physicists	96	277	\$34.00	1.37
41-9031	Sales engineers	96	1,707	\$43.60	1.74
17-2131	Materials engineers	94	1,186	\$43.79	3.81
17-3012	Electrical and electronics drafters	94	961	\$31.36	2.27
51-4199	Metal workers and plastic workers, all other	94	710	\$25.75	1.44
17-3013	Mechanical drafters	92	1,666	\$31.07	1.68
51-4012	Numerical tool and process control programmers	92	382	\$35.03	1.91
51-4111	Tool and die makers	92	1,035	\$29.05	1.07
51-4194	Tool grinders, filers, and sharpeners	92	266	\$24.89	1.16

Aerospace & defense talent cluster

4-COUNTY PSRC REGION

DEMAND & VOLATILITY

29

SOC	Occupation	Average annual net job growth		Certified H1B apps in FY2010	Apps exceed avg. annual job growth?	Job volatility (percentile)
		2001-11	2011-21			
11-9041	Engineering managers	-20	+4	128	◀	77
17-2141	Mechanical engineers	-10	+5	48	◀	73
17-3024	Electro-mechanical technicians	-5	+1			76
17-3029	Engineering techs except drafters, all other	+6	+4	1		36
17-2112	Industrial engineers	+23	+38	42	◀	84
17-2161	Nuclear engineers	+8	+6	1		14
17-3027	Mechanical engineering technicians	-11	-5	1	◀	76
17-2071	Electrical engineers	-23	+4	123	◀	73
27-1021	Commercial and industrial designers	+12	+14	21	◀	68
49-2094	Electrical & electronics repairers, commercial & i	-6	+7			35
17-3026	Industrial engineering technicians	-3	+7			85
19-2012	Physicists	+5	+4	2		25
41-9031	Sales engineers	+3	+19	40	◀	75
17-2131	Materials engineers	+10	+10	7		86
17-3012	Electrical and electronics drafters	-15	-5			79
51-4199	Metal workers and plastic workers, all other	-11	-2			78
17-3013	Mechanical drafters	-21	-12			80
51-4012	Numerical tool and process control programmers	-9	-7			92
51-4111	Tool and die makers	-12	-7			89
51-4194	Tool grinders, filers, and sharpeners	-5	-3			80

Aerospace & defense talent cluster

4-COUNTY PSRC REGION

NATIONAL FACTORS

30

SOC	Occupation	Bright outlook	Green potential	Self-employment rate	Share with bachelor's or higher
11-9041	Engineering managers	YES	YES	1%	>75% ██████████
17-2141	Mechanical engineers	YES	YES	2%	73% ██████████
17-3024	Electro-mechanical technicians	YES	YES	1%	17% ███
17-3029	Engineering techs except drafters, all other	YES	YES	1%	17% ███
17-2112	Industrial engineers	YES	YES	1%	68% ██████████
17-2161	Nuclear engineers		YES	0%	>75% ██████████
17-3027	Mechanical engineering technicians	YES	YES	1%	17% ███
17-2071	Electrical engineers		YES	2%	>75% ██████████
27-1021	Commercial and industrial designers		YES	27% ██████████	51% ████████
49-2094	Electrical & electronics repairers, commercial & i		YES	0%	11% █
17-3026	Industrial engineering technicians		YES	1%	17% ███
19-2012	Physicists			0%	>75% ██████████
41-9031	Sales engineers			0%	70% ██████████
17-2131	Materials engineers			0%	70% ██████████
17-3012	Electrical and electronics drafters			3% █	25% ███
51-4199	Metal workers and plastic workers, all other			5% █	4%
17-3013	Mechanical drafters			3% █	25% ███
51-4012	Numerical tool and process control programmers			0%	6%
51-4111	Tool and die makers			0%	4%
51-4194	Tool grinders, filers, and sharpeners			14% █████	6%

Global aerospace/defense talent clusters

PEER IDENTIFICATION

31



Industrial infrastructure talent cluster

4-COUNTY PSRC REGION

32

KEY CRITERIA









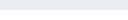





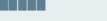





SOC	Occupation	Cluster Score	Total jobs in 2011	Median hourly wage in 2011	Location Quotient in 2011
17-2051	Civil engineers	100	8,187	\$36.39	2.16
17-2081	Environmental engineers	100	861	\$39.83	1.26
19-2043	Hydrologists	98	244	\$38.06	2.29
13-1021	Purchasing agents and buyers, farm products	98	224	\$28.92	1.29
43-5061	Production, planning, and expediting clerks	98	4,703	\$22.56	1.28
51-8012	Power distributors and dispatchers	98	221	\$39.85	1.61
17-3022	Civil engineering technicians	96	1,352	\$26.16	1.23
53-5011	Sailors and marine oilers	96	1,377	\$22.76	3.09
53-7121	Tank car, truck, and ship loaders	94	323	\$24.80	2.04
19-2041	Environ. scientists & specialists, incl. health	93	2,347	\$29.90	1.93
13-1041	Compliance officers, except ag., constr., health a	93	3,686	\$24.01	1.01
13-1081	Logisticians	93	3,619	\$33.03	2.59
43-5011	Cargo and freight agents	93	1,881	\$22.24	1.69
11-3071	Transportation, storage, & distribution managers	91	1,968	\$39.69	1.33
13-1023	Purchasing agents, excpt whlsale, retail, & farm	91	6,077	\$29.34	1.45
19-3051	Urban and regional planners	91	1,828	\$33.47	3.51
53-6051	Transportation inspectors	91	604	\$27.58	1.74
11-3061	Purchasing managers	89	1,263	\$42.10	1.29
17-2121	Marine engineers and naval architects	89	280	\$38.16	2.49
39-6031	Flight attendants	89	2,018	\$21.81	1.62

Industrial infrastructure talent cluster

4-COUNTY PSRC REGION

DEMAND & VOLATILITY

33

SOC	Occupation	Average annual net job growth		Certified H1B apps in FY2010	Apps exceed avg. annual job growth?	Job volatility (percentile)
		2001-11	2011-21			
17-2051	Civil engineers	+100	+115	51		66 
17-2081	Environmental engineers	+15	+13	7		47 
19-2043	Hydrologists	+4	+1			18 
13-1021	Purchasing agents and buyers, farm products	+0	+0			29 
43-5061	Production, planning, and expediting clerks	-39	+6			69 
51-8012	Power distributors and dispatchers	+3	+1			31 
17-3022	Civil engineering technicians	+14	+14			48 
53-5011	Sailors and marine oilers	+21	+13			47 
53-7121	Tank car, truck, and ship loaders	-1	-4			78 
19-2041	Environ. scientists & specialists, incl. health	+39	+31	10		23 
13-1041	Compliance officers, except ag., constr., health a	+95	+85	4		3 
13-1081	Logisticians	+31	+30	10		72 
43-5011	Cargo and freight agents	+8	+29	1		50 
11-3071	Transportation, storage, & distribution managers	-9	+2	5	◀	35 
13-1023	Purchasing agents, excpt whlsale, retail, & farm	+31	+59			69 
19-3051	Urban and regional planners	+25	+26			22 
53-6051	Transportation inspectors	+4	+4			54 
11-3061	Purchasing managers	-5	+1	10	◀	66 
17-2121	Marine engineers and naval architects	+2	+1	6	◀	30 
39-6031	Flight attendants	-97	+4			53 

Industrial infrastructure talent cluster

4-COUNTY PSRC REGION

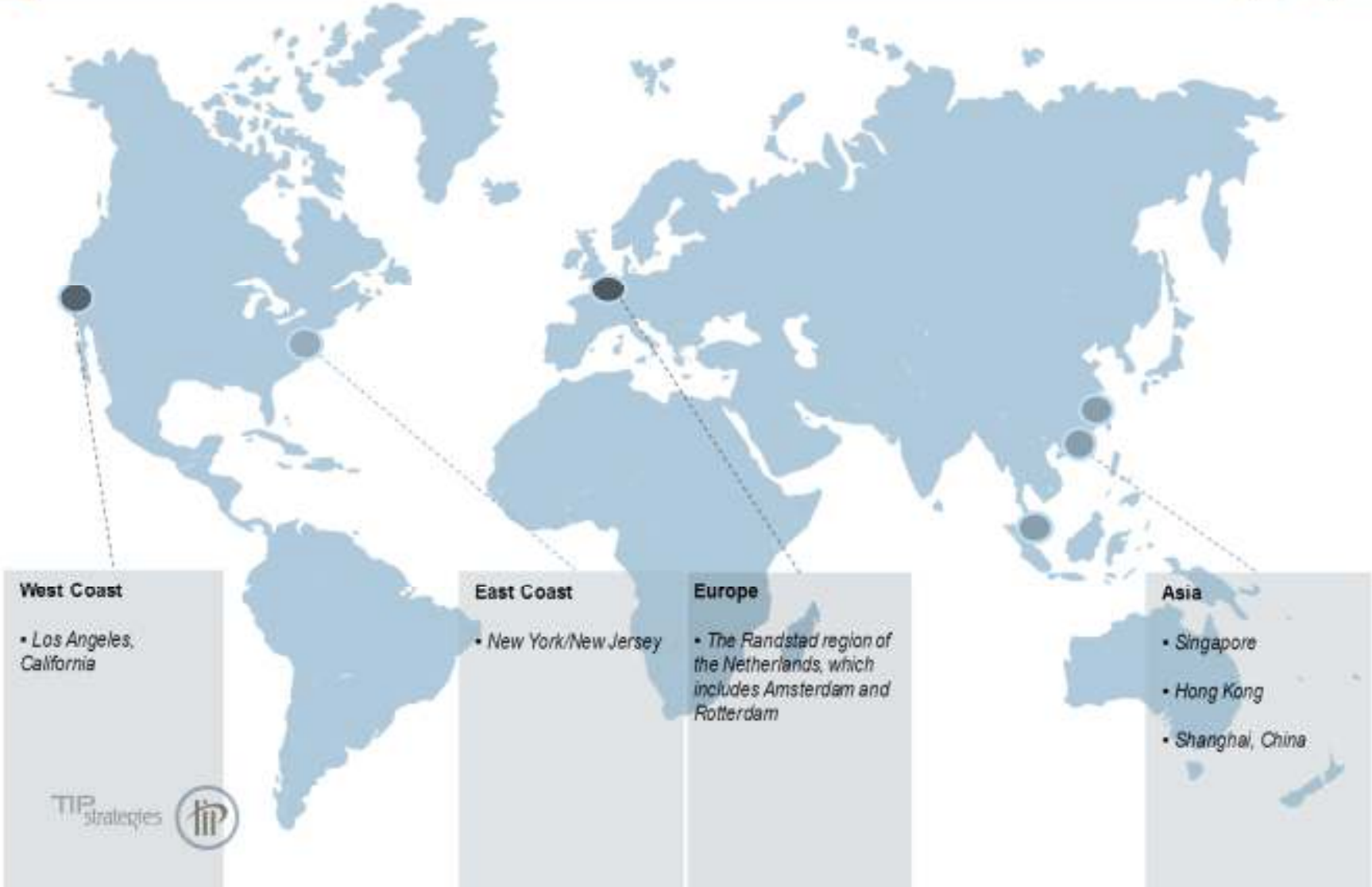
NATIONAL FACTORS

34

SOC	Occupation	Bright outlook	Green potential	Self-employment rate	Share with bachelor's or higher
17-2051	Civil engineers	YES	YES	4% ■	>75% ■■■■■■■■
17-2081	Environmental engineers	YES	YES	1%	>75% ■■■■■■■■
19-2043	Hydrologists		YES	2%	>75% ■■■■■■■■
13-1021	Purchasing agents and buyers, farm products		YES	9% ■■■	24% ■■■
43-5061	Production, planning, and expediting clerks		YES	1%	27% ■■■■
51-8012	Power distributors and dispatchers		YES	0%	15% ■■
17-3022	Civil engineering technicians			1%	17% ■■
53-5011	Sailors and marine oilers			0%	15% ■■
53-7121	Tank car, truck, and ship loaders			0%	6%
19-2041	Environ. scientists & specialists, incl. health	YES	YES	2%	>75% ■■■■■■■■
13-1041	Compliance officers, except ag., constr., health a	YES	YES	1%	55% ■■■■■■
13-1081	Logisticians	YES	YES	0%	43% ■■■■■
43-5011	Cargo and freight agents	YES	YES	0%	21% ■■■
11-3071	Transportation, storage, & distribution managers		YES	3% ■	26% ■■■
13-1023	Purchasing agents, excpt whlsale, retail, & farm	YES		1%	39% ■■■■
19-3051	Urban and regional planners		YES	0%	>75% ■■■■■■■■
53-6051	Transportation inspectors		YES	4% ■	15% ■■
11-3061	Purchasing managers			4% ■	56% ■■■■■■
17-2121	Marine engineers and naval architects			15% ■■■■	71% ■■■■■■■■
39-6031	Flight attendants			0%	30% ■■■■

Global industrial infra. talent clusters

PEER IDENTIFICATION



Proposed peer landscape

PEER IDENTIFICATION

36

DOMESTIC



- Austin
- Bay Area
- Boston
- Raleigh/Durham
- San Diego
- Washington DC

INTERNATIONAL



- Tel Aviv
- Singapore
- Vancouver
- Randstad region
(Amsterdam-Rotterdam)

Rationale for foreign peers

PEER IDENTIFICATION

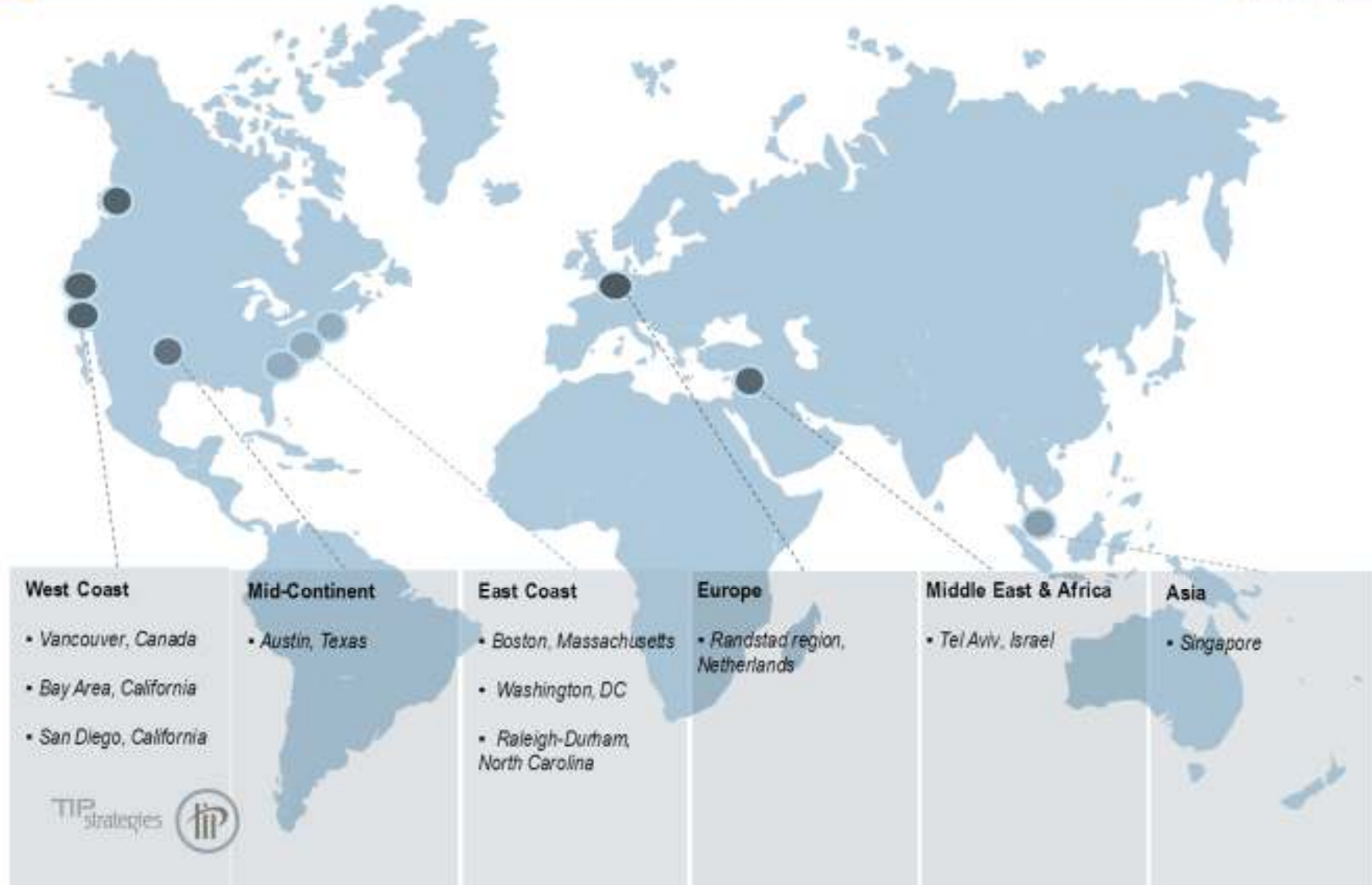
37

- **Tel Aviv**
 - one of the world's great emerging centers of talent and innovation
 - similarities across multiple clusters, including defense technology
- **Singapore**
 - one of the most important air and sea hubs in the world despite size
 - a magnet for attracting external talent
- **Randstad region (Netherlands)**
 - one of the most important sea hubs in the world despite size
 - also a major air hub, and fluid market for talent, capital, and innovation
- **Vancouver**
 - regional proximity matters even if the cluster analysis misses it

Proposed peer landscape

PEER IDENTIFICATION

38



39

Strategic Discussion

Questions

40

Project Update

41

Summary of Input

Focus Groups

42

- ✓ WBBA
- ✓ WA CleanTech Alliance
- ✓ Workforce Development Council
- ✓ Snohomish County EA
- ✓ Tacoma-Pierce EDA
- ✓ Kitsap County EDA
- ✓ enterpriseSeattle Board
- Maritime Industry
- Aerospace Industry
- Rural Cities
- South Snohomish County
- South King County

Stakeholder Interviews

43

- Businesses
- Industry associations
- Chambers
- Cities
- Counties
- Ports
- Higher education
- Unions
- Non-profits
- Tribes

Common themes

44

- Talent development, retention, engagement, & attraction is key to the region
- RES must provide an honest assessment of the region's competitiveness
- Puget Sound should be branded as an international destination for innovation
- PSRC should be a champion for county-level initiatives

Themes cont.

45

- Support employment centers outside of Seattle
- Expand regional higher education opportunities
- Consider the role of disruptive technologies
- Capitalize on medical/education collaboration

Next Steps

46

- Complete focus groups & interviews
- Industry & business analysis
- Competitive landscape analysis
- Opportunities workshop

THANK YOU



TIP Strategies | www.tipstrategies.com | theory into practice