

**Presented at the Labor Shortages and
Comprehensive Immigration Reform
Conference – Employment Policy Institute**

Measuring Labor Shortages

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Summary

- General Questions
- Labor Market Indicators – Shortage or Surplus
 - Eight Indicators Examined
 - Occupations Considered
 - Engineers
 - Physical Therapists
 - Special Education Teachers
 - Gardeners (Ground Maintenance Workers)
- Limitations of Indicators
- Are There Shortages? It Depends on...

General Questions

- Time Frame
- Policy Assumptions
- Geographic Variation
- Labor Force Trends
- Discouraged Workers
- New Technologies and Work Reorganization




Time Frame

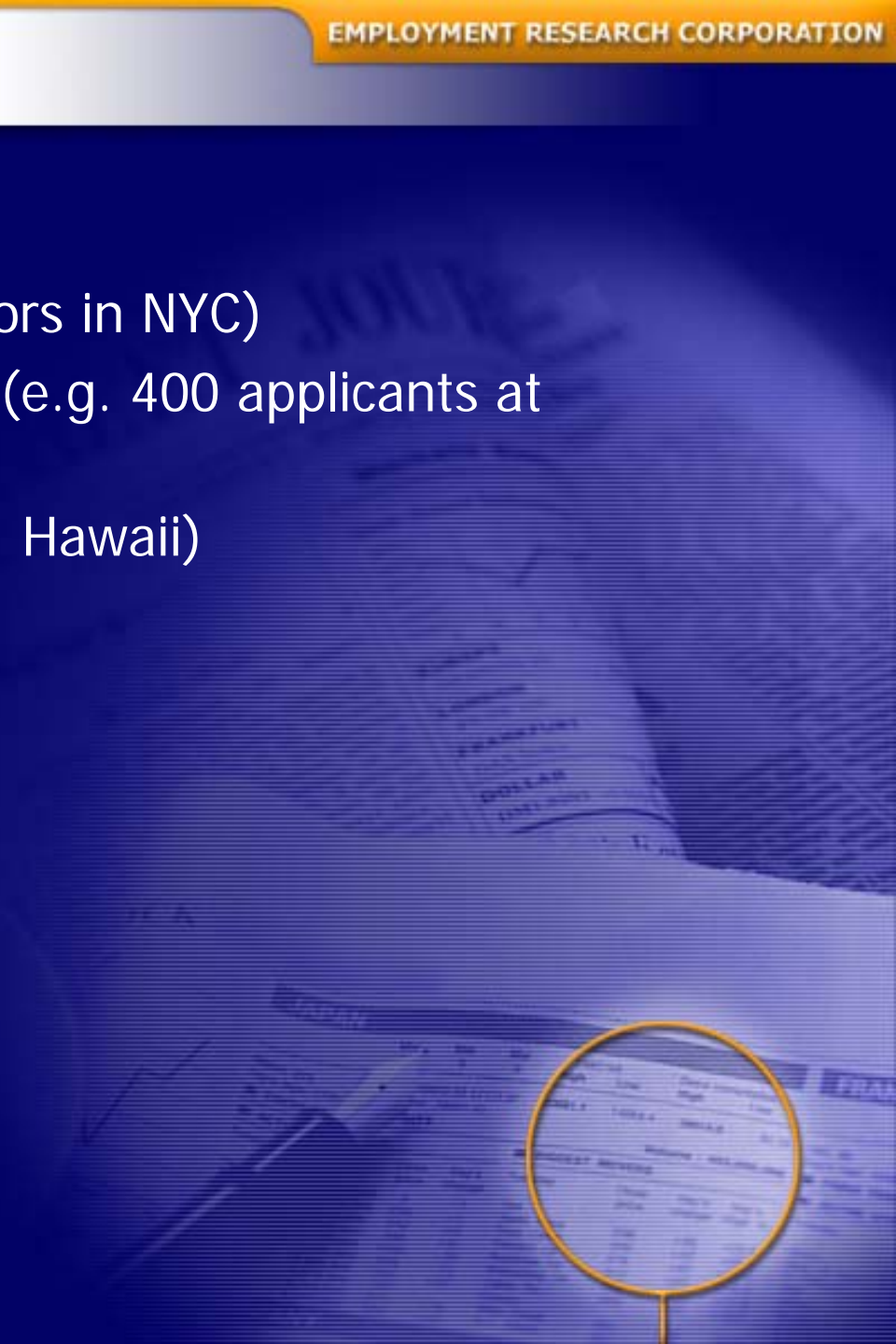
- Last Year
- Today
- When Stimulus Package is being spent
- Post Stimulus Package
- Seasonal Considerations
 - Gardeners in the Winter
 - Retail Workers in December



Policy Assumptions

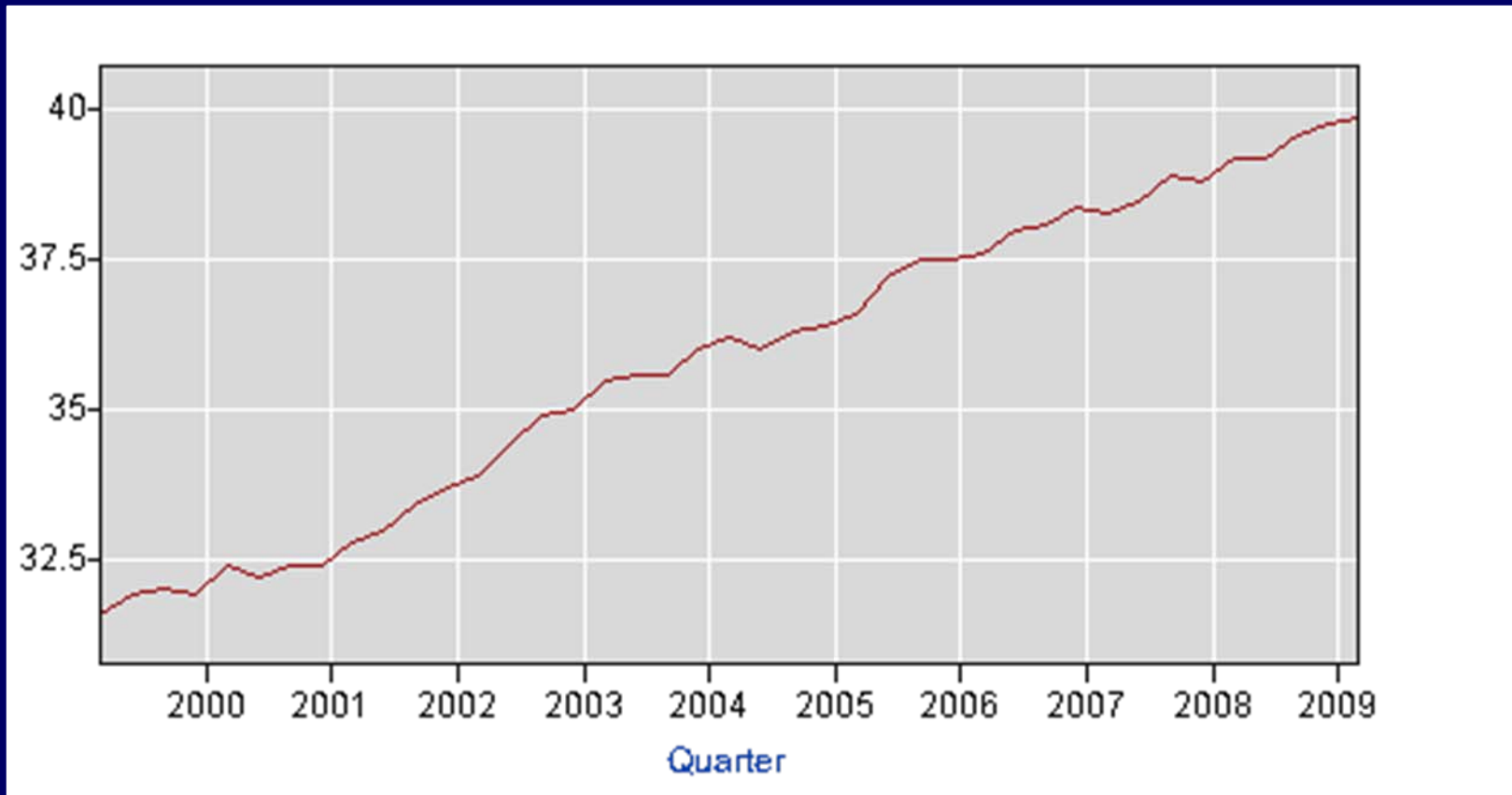
- Will Current Stimulus Be Enough?
 - When Will Current Recession End?
 - What will Immigration Policy Be?
 - Permanent Certifications
 - H-1Bs
 - Other
 - What will happen to the Global Economy?
 - Outsourcing
 - Government / Company Spending on Medical Care
- 
- The background of the slide features a blue-tinted image of a document with a line graph. A magnifying glass is positioned in the lower right corner, focusing on a section of the document that appears to be a table or a detailed report. The overall aesthetic is professional and analytical.

Geographic Variation

- Urban Versus Rural (e.g. Doctors in NYC)
 - Universities and Leading Labs (e.g. 400 applicants at Harvard)
 - High Cost of Living Areas (e.g. Hawaii)
 - Border Areas
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- A magnifying glass with a gold-colored frame is positioned over a document. The document features a line graph with an upward-sloping trend line. The background of the slide is a dark blue gradient with a faint, larger-scale version of the same magnifying glass and document imagery.

Labor Force Trends

Labor Force Participation – 55 yrs and over



Source: Bureau of Labor Statistics, Current Population Survey

Discouraged Workers

Category	First Quarter 2008		First Quarter 2009	
	Total	Percent	Total	Percent
Total not in the labor force	79,985	100	81,253	100
Persons who currently want a job	4,719	5.9	5,663	7
Marginally attached to the labor force, total	1,555	1.9	2,096	2.6
Reason not currently looking				
Discouragement over job prospects	421	0.5	717	0.9
Reasons other than discouragement	1,134	1.4	1,379	1.7

Source: BLS: *Issues in Labor Statistics Summary 09-04/April 2009*

New Technologies & Work Organization

- Impact of Internet on Newspapers
- Frozen Foods
- Fast Foods
- Physician Assistants



Labor Market Indicators

- Past Employment Change
- Past Unemployment Rate
- Past Wage Change
- Training Required
- Replacement Demand
- Forecasted Demand
- Immigrants Certified
- Job Vacancies



Labor Market Indicators

2003-2008

Indicator	ALL OCCUPATIONS	Architecture & Engineering Occupations	Electrical & Electronics Engineers	Special Education Teachers	Physical Therapists	Grounds Maintenance Workers
Past Employment Change						
Annual % Change 2003-2008	1.1%	1.5%	-0.7%	0.9%	1.6%	2.1%
Past Unemployment Rate						
Average 2003-2008 rate	4.8%	2.6%	2.6%	1.6%	0.9%	10.5%
Past Wage Change						
Annual % Change 2003-2008	3.1%	3.4%	1.6%	3.4%	5.7%	1.2%

Computed from BLS *Current Population Survey* Source Data

Labor Market Indicators

2003-2005

Indicator	ALL OCCUPATIONS	Architecture & Engineering Occupations	Electrical & Electronics Engineers	Special Education Teachers	Physical Therapists	Grounds Maintenance Workers
Past Employment Change						
Annual % Change 2003-2005	1.4%	1.2%	-1.5%	6.7%	-1.4%	2.3%
Past Unemployment Rate						
Average 2003-2005 rate	5.1%	3.1%	3.5%	1.8%	0.9%	10.5%
Past Wage Change						
Annual % Change 2003-2005	2.5%	2.4%	0.7%	4.2%	7.8%	-0.8%

Computed from BLS *Current Population Survey* Source Data

Labor Market Indicators

2005-2008

Indicator	ALL OCCUPATIONS	Architecture & Engineering Occupations	Electrical & Electronics Engineers	Special Education Teachers	Physical Therapists	Grounds Maintenance Workers
Past Employment Change						
Annual % Change 2005-2008	0.8%	1.6%	-0.2%	-2.8%	3.6%	2.1%
Past Unemployment Rate						
Average 2006 -2008 rate	4.6%	2.1%	1.6%	1.3%	0.8%	10.5%
Past Wage Change						
Annual % Change 2005-2008	3.5%	4.0%	2.3%	2.8%	4.3%	2.6%

Computed from BLS *Current Population Survey* Source Data

Labor Market Indicators

1st Quarter 2008 to 1st Quarter 2009

Indicator	ALL OCCUPATIONS	Architecture & Engineering Occupations	Electrical & Electronics Engineers	Special Education Teachers	Physical Therapists	Grounds Maintenance Workers
Past Employment Change						
Annual % Change 1Q2008-1Q2009	-3.2%	-6.7%	-15.6%	12.0%	-26.1%	-14.1%
Past Unemployment Rate						
Average Q1.2008-Q1.2009 rate	6.6%	3.6%	2.5%	0.6%	1.1%	20.9%

Computed from BLS *Current Population Survey* Source Data

Fastest Growing Occupations

HOUSEHOLD DATA – NOT SEASONALLY ADJUSTED

QUARTERLY AVERAGES (Numbers in thousands)

YEAR	I-2008	I-2009	%Change
OCCUPATION			
Healthcare support occupations	3,073	3,338	7.9%
Personal care and service occupations	4,601	4,944	6.9%
Legal occupations	1,654	1,756	5.8%
Service occupations	23,510	24,011	2.1%
Healthcare practitioner and technical occupations	7,408	7,543	1.8%
Community and social services occupations	2,250	2,291	1.8%
Education, training, and library occupations	8,708	8,866	1.8%
Life, physical, and social science occupations	1,282	1,302	1.5%
Protective service occupations	2,984	3,025	1.4%
Installation, maintenance, and repair occupations	5,065	5,118	1.0%

Computed from BLS *Current Population Survey* Source Data

Fastest Declining Occupations

HOUSEHOLD DATA – NOT SEASONALLY ADJUSTED

QUARTERLY AVERAGES (Numbers in thousands)

YEAR	I-2008	I-2009	%Change
OCCUPATION			
Production occupations	9,231	7,830	-17.9%
Construction and extraction occupations	8,695	7,399	-17.5%
Farming, fishing, and forestry occupations	933	816	-14.3%
Production, transportation, and material moving occupations	18,086	16,373	-10.5%
Natural resources, construction, and maintenance occupations	14,694	13,334	-10.2%
Computer and mathematical occupations	3,691	3,426	-7.7%
Arts, design, entertainment, sports, and media occupations	2,796	2,603	-7.4%
Architecture and engineering occupations	2,895	2,700	-7.2%
Office and administrative support occupations	19,555	18,447	-6.0%
Sales and office occupations	36,016	34,107	-5.6%
Sales and related occupations	16,462	15,660	-5.1%
Transportation and material moving occupations	8,856	8,543	-3.7%
Building and grounds cleaning and maintenance occupations	5,206	5,042	-3.3%

Computed from BLS *Current Population Survey* Source Data

Labor Market Indicators

Training Required		Bachelor's degree	Bachelor's degree	Bachelor's or higher degree, plus work experience	Master's degree	Short-term & moderate-term, on the job training
Total Job Openings						
	TOTAL	Architecture and engineering occupations	Electrical and electronics engineers	Special education teachers	Physical therapists	Grounds maintenance workers
Total Job Openings (%)	33.7%	33.0%	28.2%	37.7%	39.3%	31.0%
Forecasted Demand						
%Change in Employment	10.4%	10.4%	5.0%	15.5%	27.1%	17.8%
Immigrants Certified						
<i>Foreign Labor Certification Data 2008</i>						
%Denied	17.3%	15.8%	17.0%	14.5%	40.0%	51.5%
TOTEMPLOY (thousands)	145,362	2,931	350	387	197	1,262
Certifications per 100 ,000 employed	34	26	82	17	1	5

* Physical Therapist certifications not meaningful

Schedule A

- Schedule A is a list of occupations, set forth at 20 CFR 656.15, for which the Department has determined there are not sufficient U.S. workers who are able, willing, qualified and available. In addition, Schedule A establishes that the employment of aliens in such occupations will not adversely affect the wages and working conditions of U.S. workers similarly employed:
 - Physical Therapists - who possess all the qualifications necessary to take the physical therapist licensing examination in the state in which they propose to practice physical therapy;
 - Professional Nurses
 - Exceptional ability in the sciences or arts
 - Exceptional ability in the performing arts

Limitations of Indicators

- Sampling Error
- Non Sampling Error
- Universe measured
- Conceptually best measure
 - e.g. starting wages rather than average wages
 - Hard to fill vacancies
 - Establishment Surveys may provide more accurate measures



Job Vacancies – Second Quarter

JOB VACANCIES MINNESOTA

Second Quarter	SOC Code	2Q 2003	2Q 2005	2Q 2007	2Q 2008	
		JVR	JVR	JVR	JV	JVR
All Occupations	00-0000	2.0%	2.3%	2.3%	51,722	1.9%
Architecture and Engineering Occupations	17-0000	2.2%	3.5%	2.5%	1,170	2.3%
Electrical Engineer	17-2071	0.5%	3.1%	4.8%	139	4.3%
Landscaping and Groundkeeping Workers	37-3011	6.9%	7.0%	7.0%	1,152	8.2%
Special Education Teachers - Preschool, Kindergarten, and Elementary School	25-2041	2.5%	4.8%	3.6%	33	0.6%
Physical Therapists	29-1123	5.0%	3.9%	5.8%	235	8.0%

Source: MN Department of Employment and Economic Development,
Labor Market Information Office, Minnesota Job Vacancy Survey
Compiled by: Rachel Vilsack, Regional Labor Market Analyst Date: May 15, 2009

Job Vacancies – Fourth Quarter

JOB VACANCIES MINNESOTA

Fourth Quarter	SOC Code	4Q 2003	4Q 2005	4Q 2007	4Q 2008	
		JVR	JVR	JVR	JV	JVR
All Occupations	00-0000	1.9%	2.5%	1.9%	31,066	1.2%
Architecture and Engineering Occupations	17-0000	1.8%	3.2%	2.5%	932	1.8%
Electrical Engineer	17-2071	1.2%	3.3%	4.2%	81	2.5%
Landscaping and Groundkeeping Workers	37-3011	3.0%	5.0%	0.4%	208	1.5%
Special Education Teachers - Preschool, Kindergarten, and Elementary School	25-2041	0.4%	0.1%	1.1%	38	0.7%
Physical Therapists	29-1123	2.7%	5.7%	6.6%	114	3.9%

Source: MN Department of Employment and Economic Development,
Labor Market Information Office, Minnesota Job Vacancy Survey
Compiled by: Rachel Vilsack, Regional Labor Market Analyst Date: May 15, 2009

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