



Evidence on the Labour Market Crisis: Unemployment and Wages

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Presentation to the ESRI Forum
Oct 6th, 2009

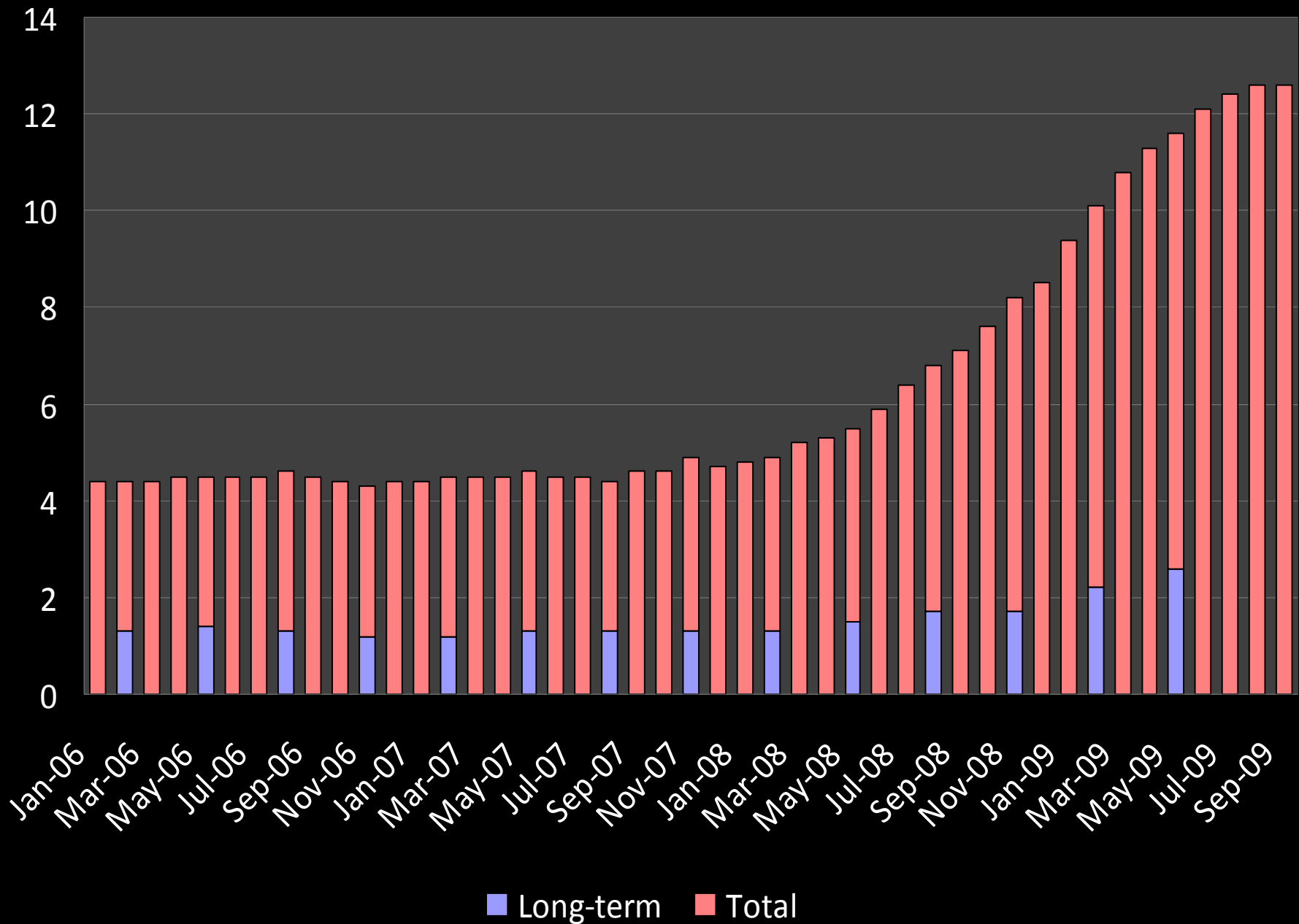
Overview

A. Increase in Unemployment

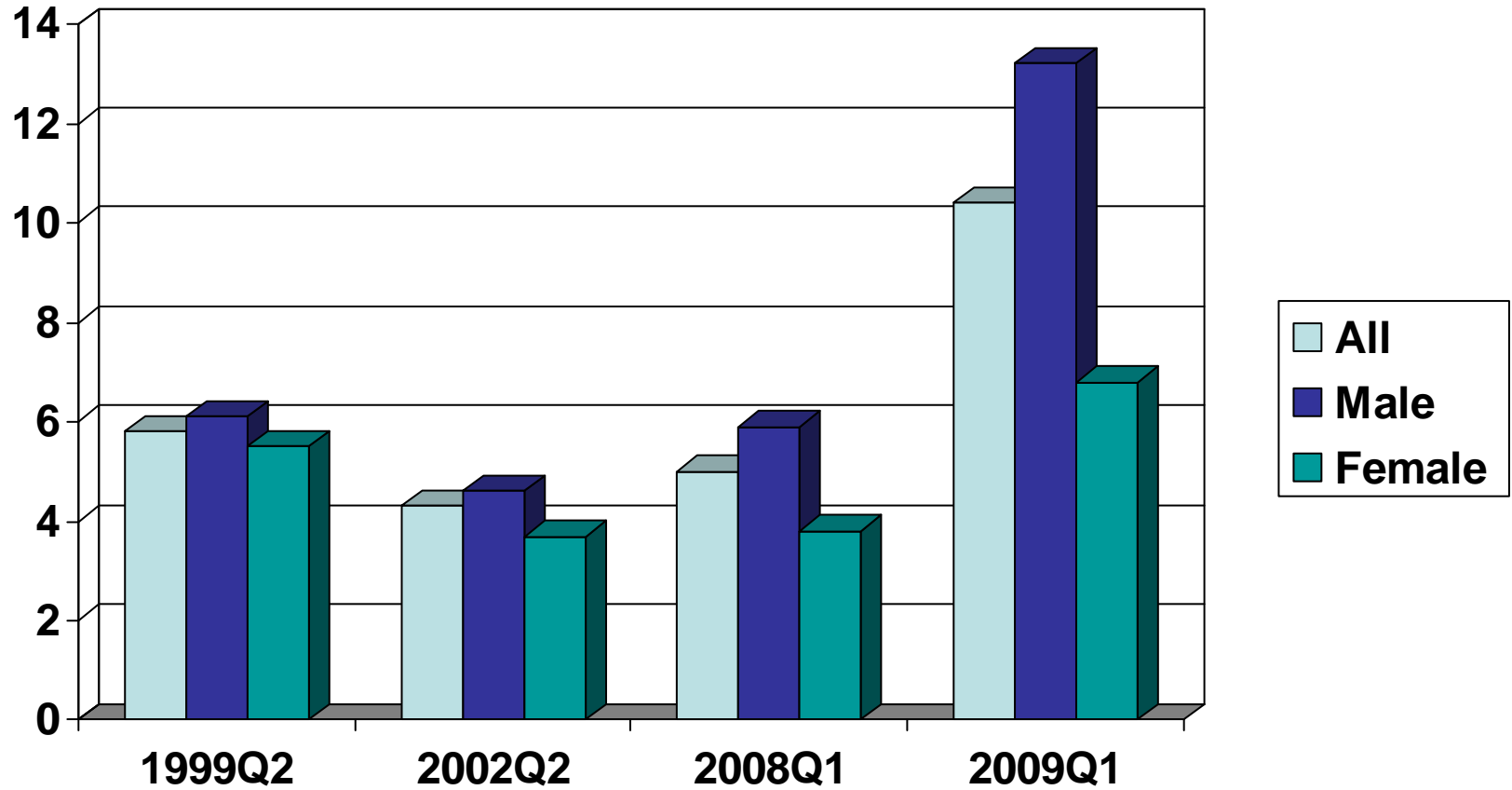
- Composition & Dynamics
- Profiling the unemployed

B. Public-private sector wage gap

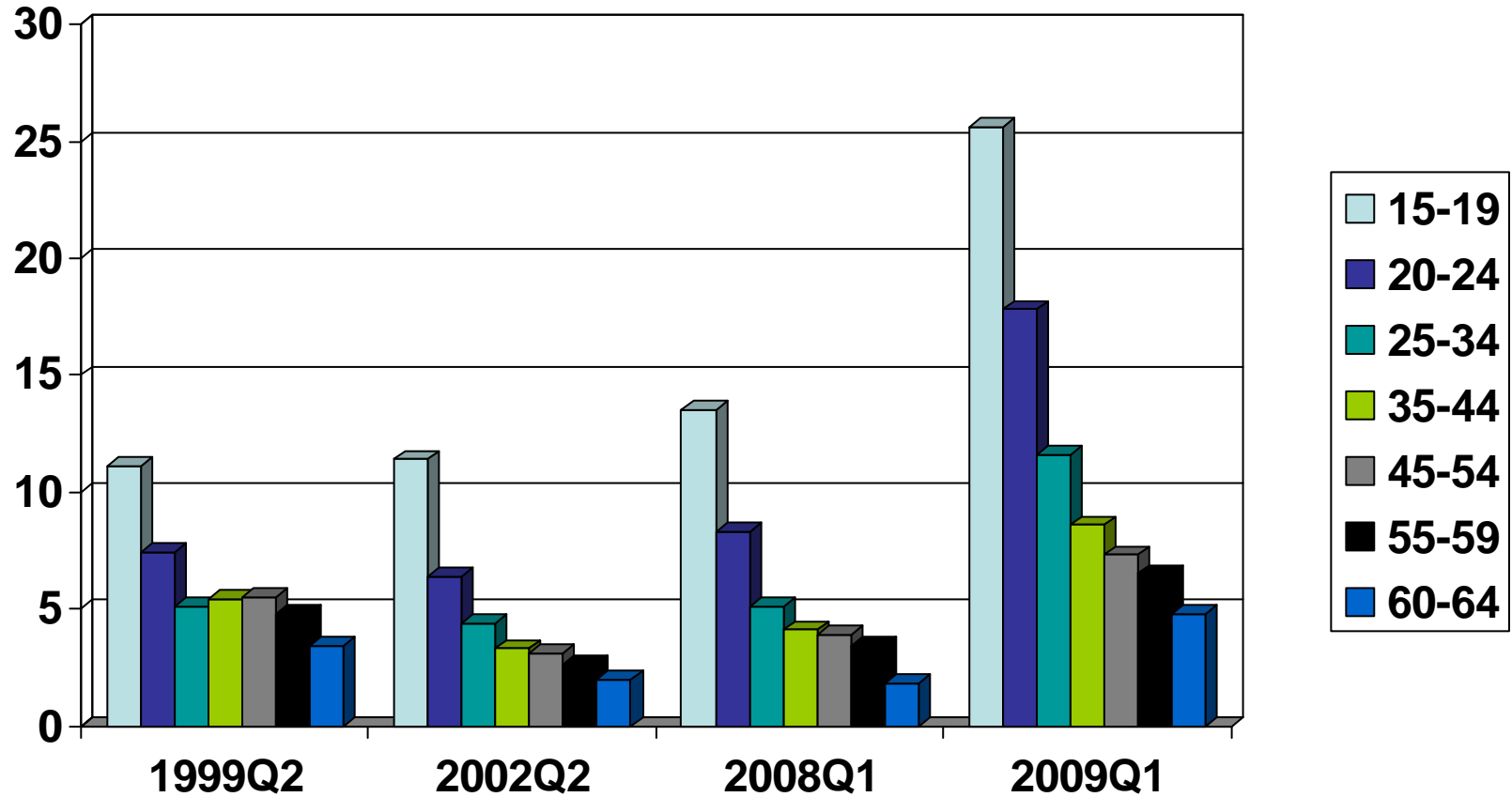
Total and Long-term Unemployment 2006-2009



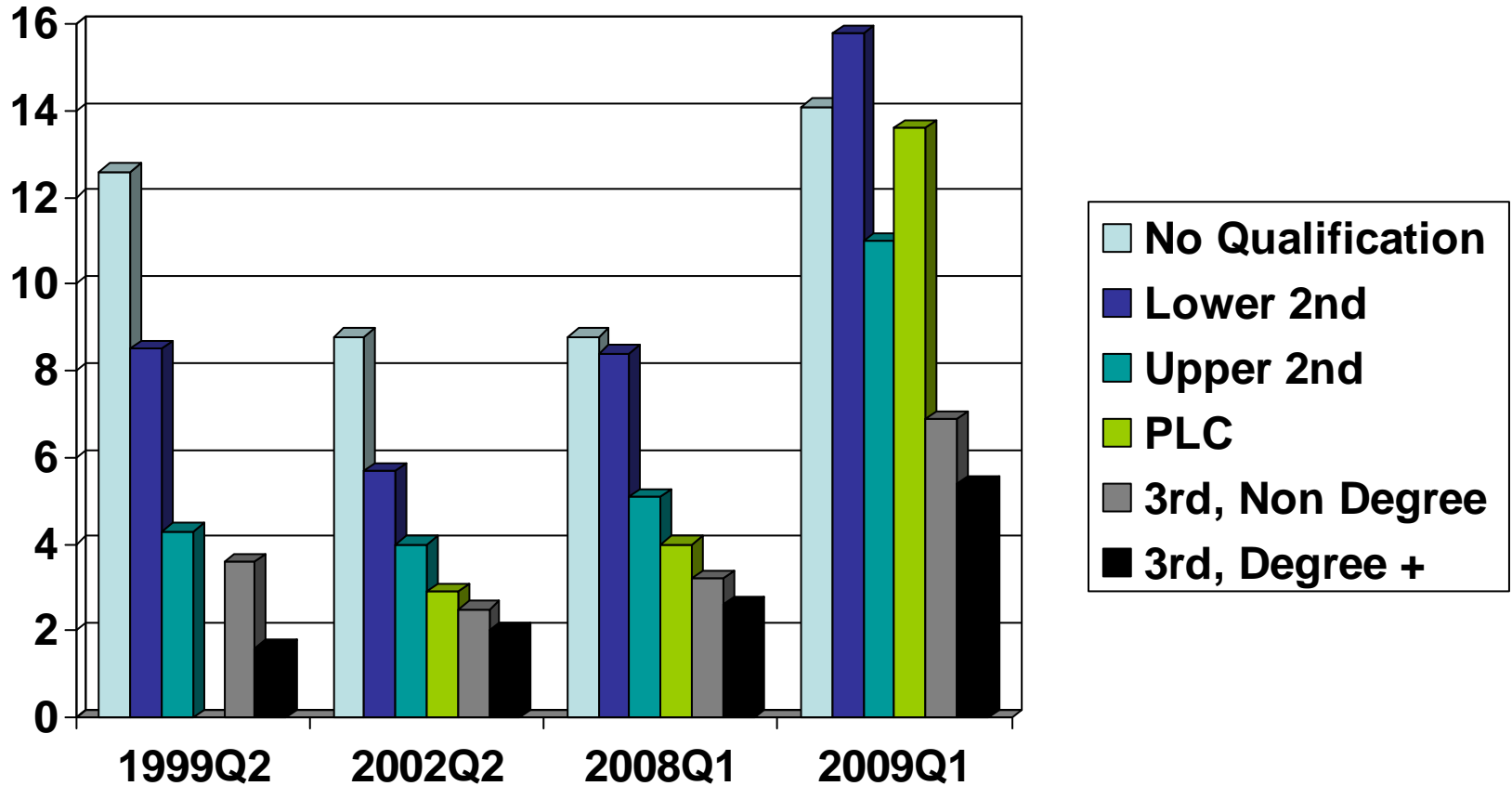
Unemployment Rates by Gender



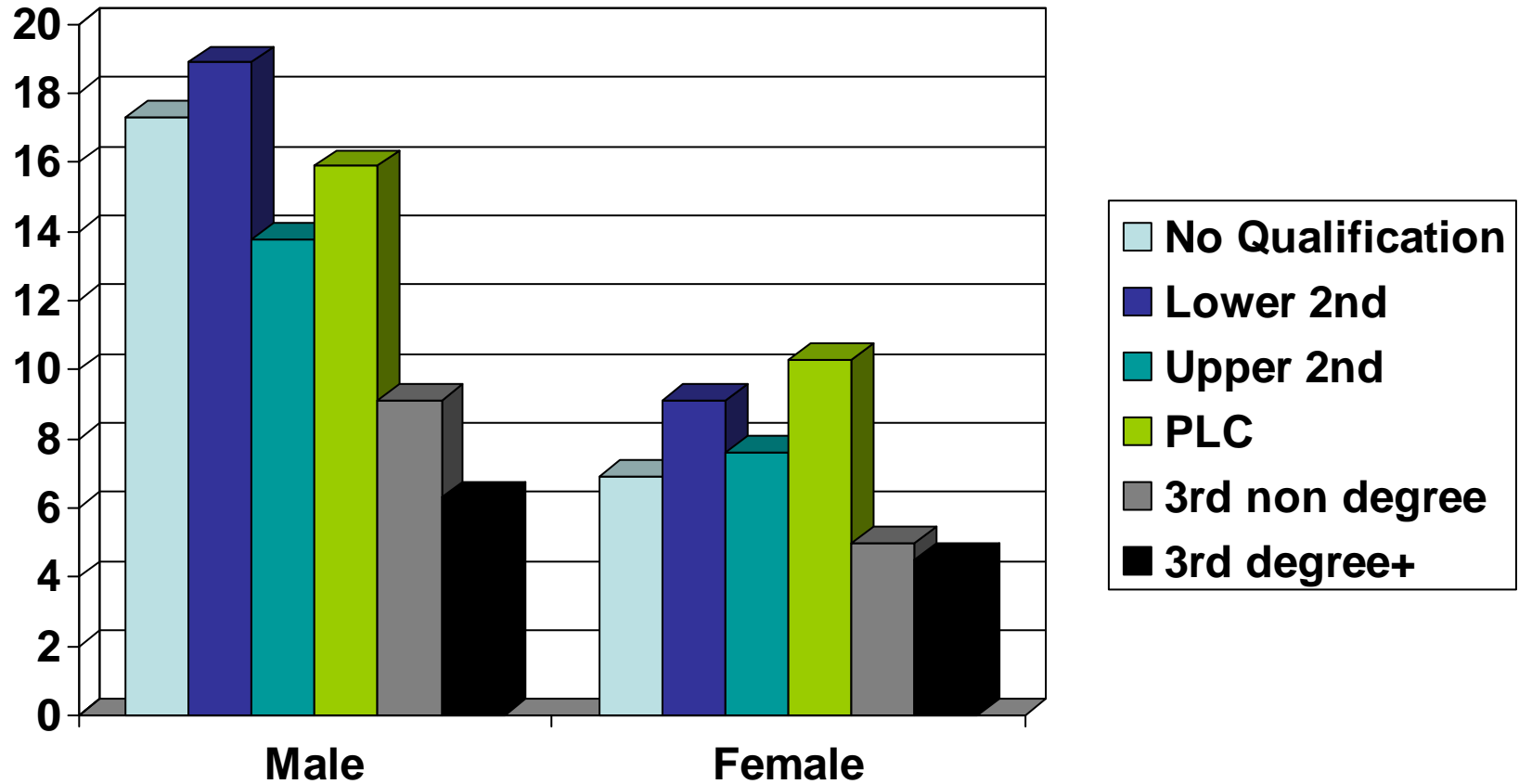
Unemployment Rates by Age Group



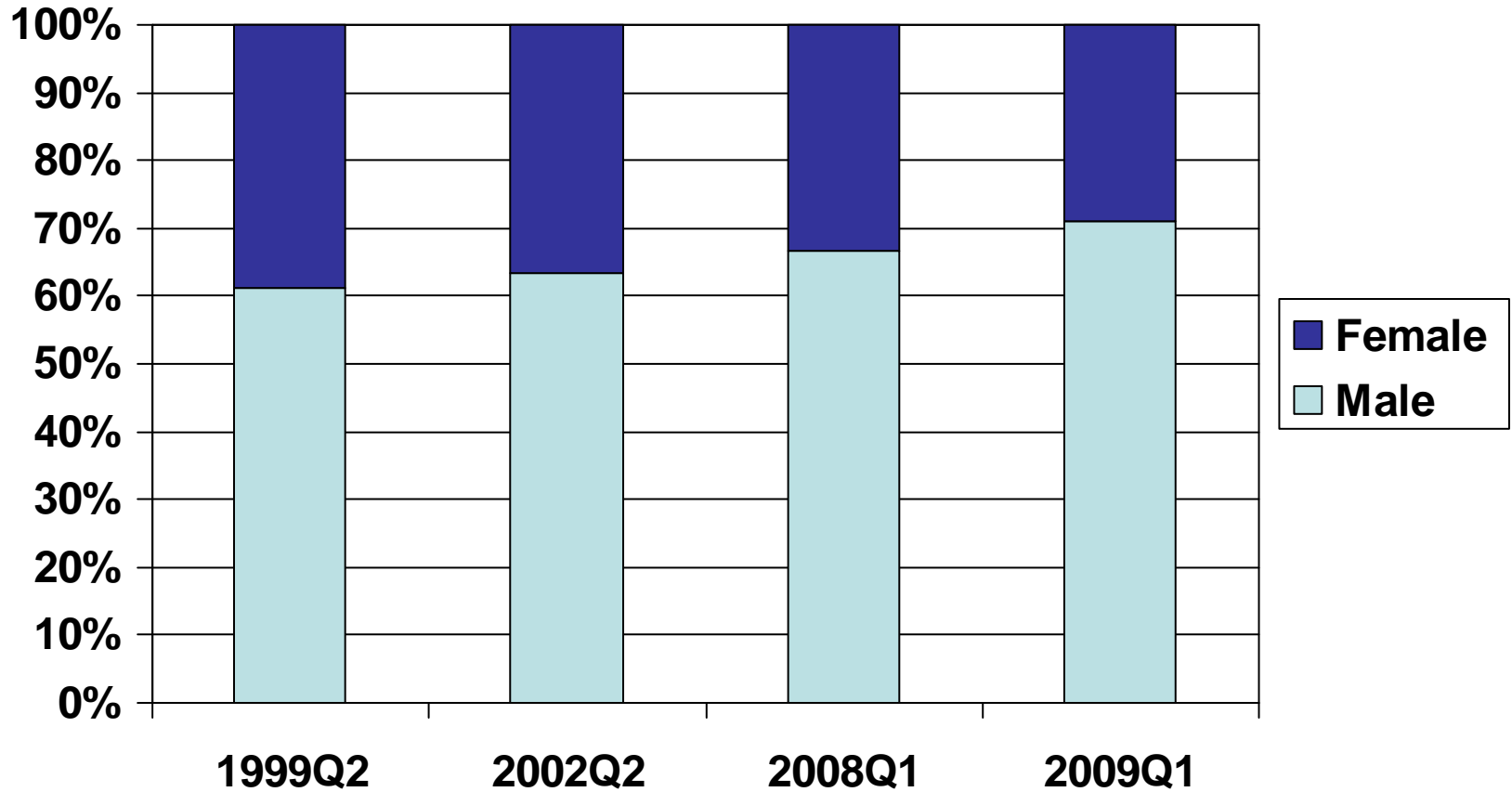
Unemployment Rates by Education



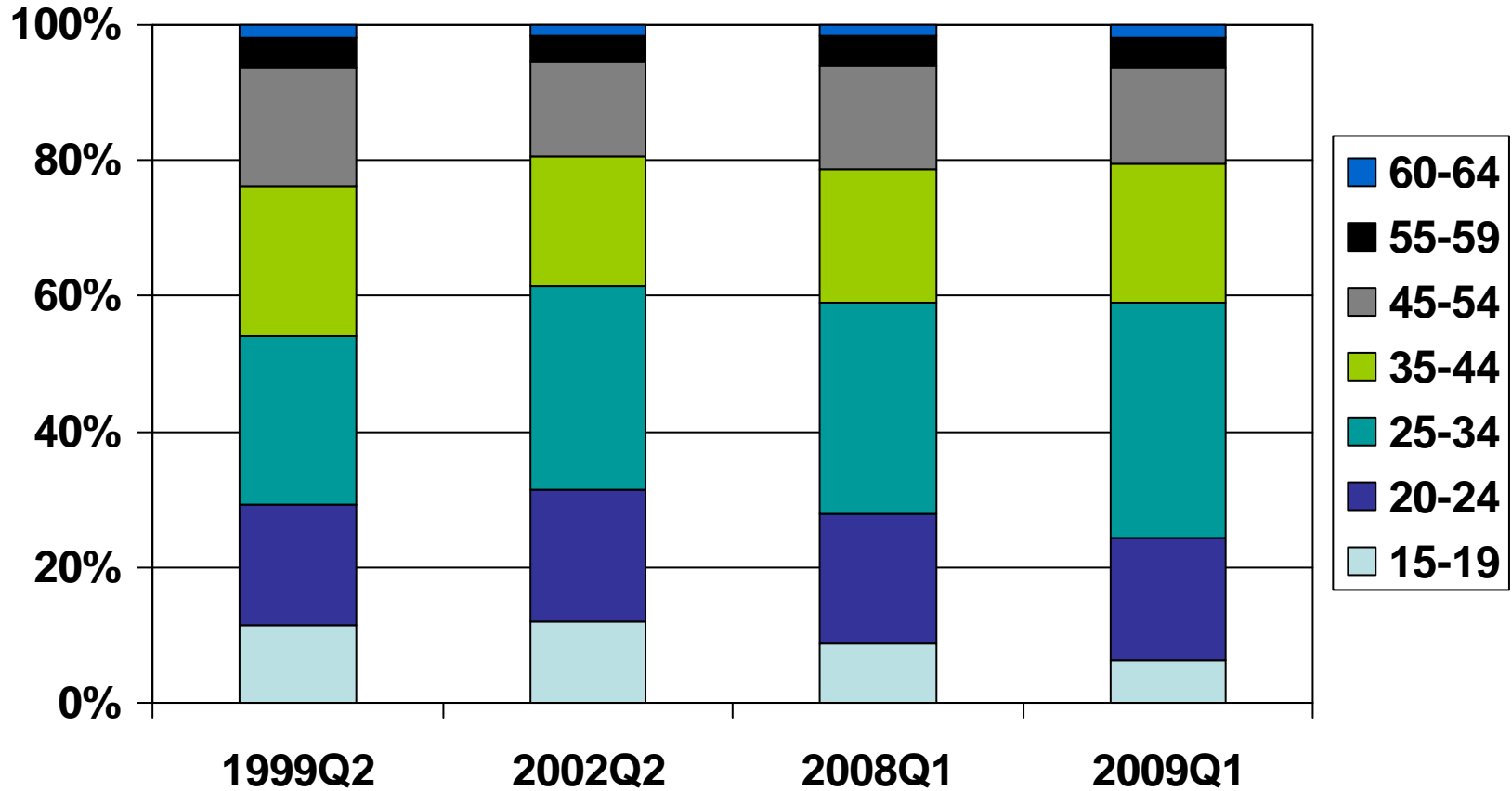
Unemployment Rates by Education



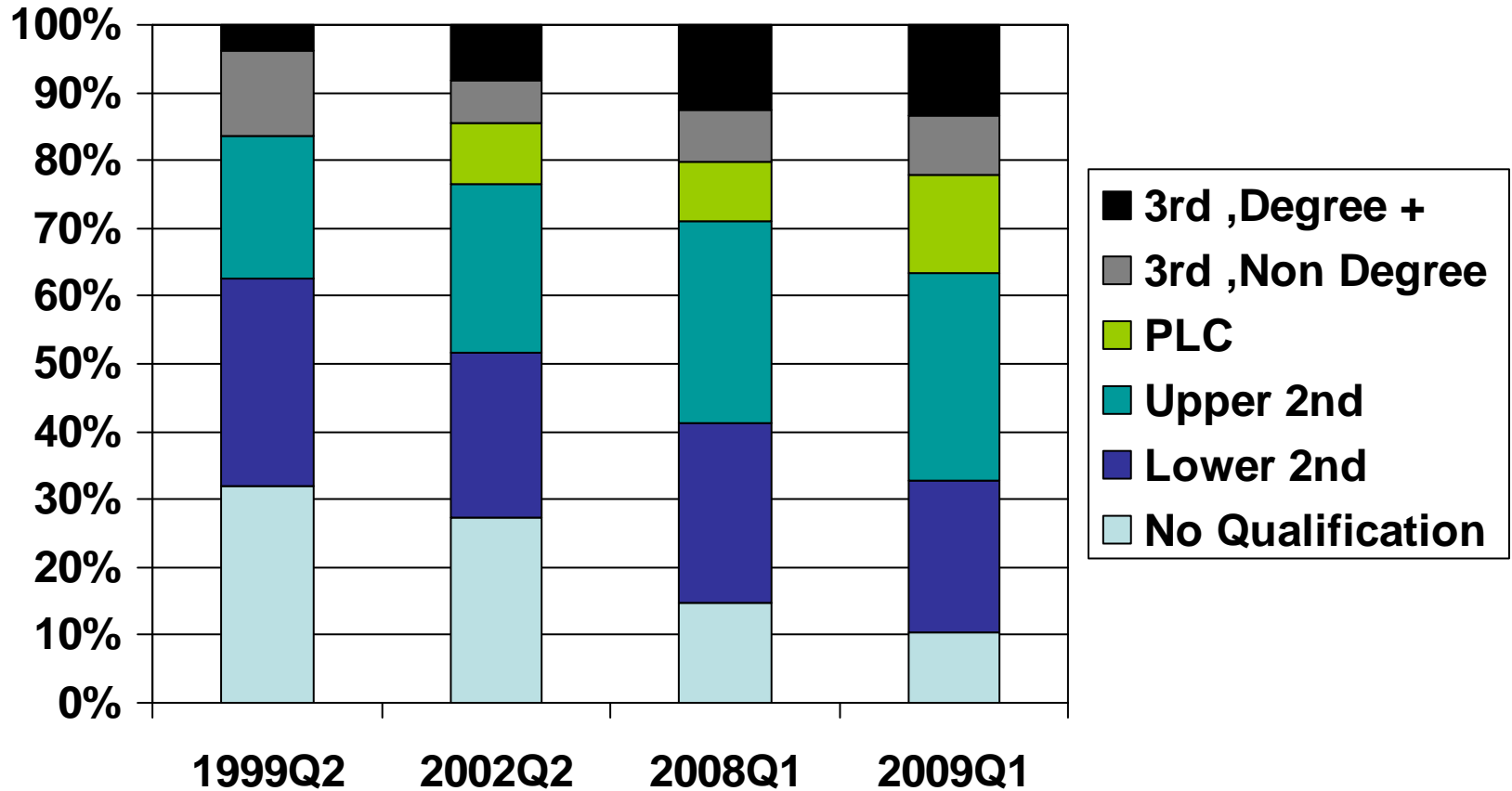
Composition of Unemployment by Gender



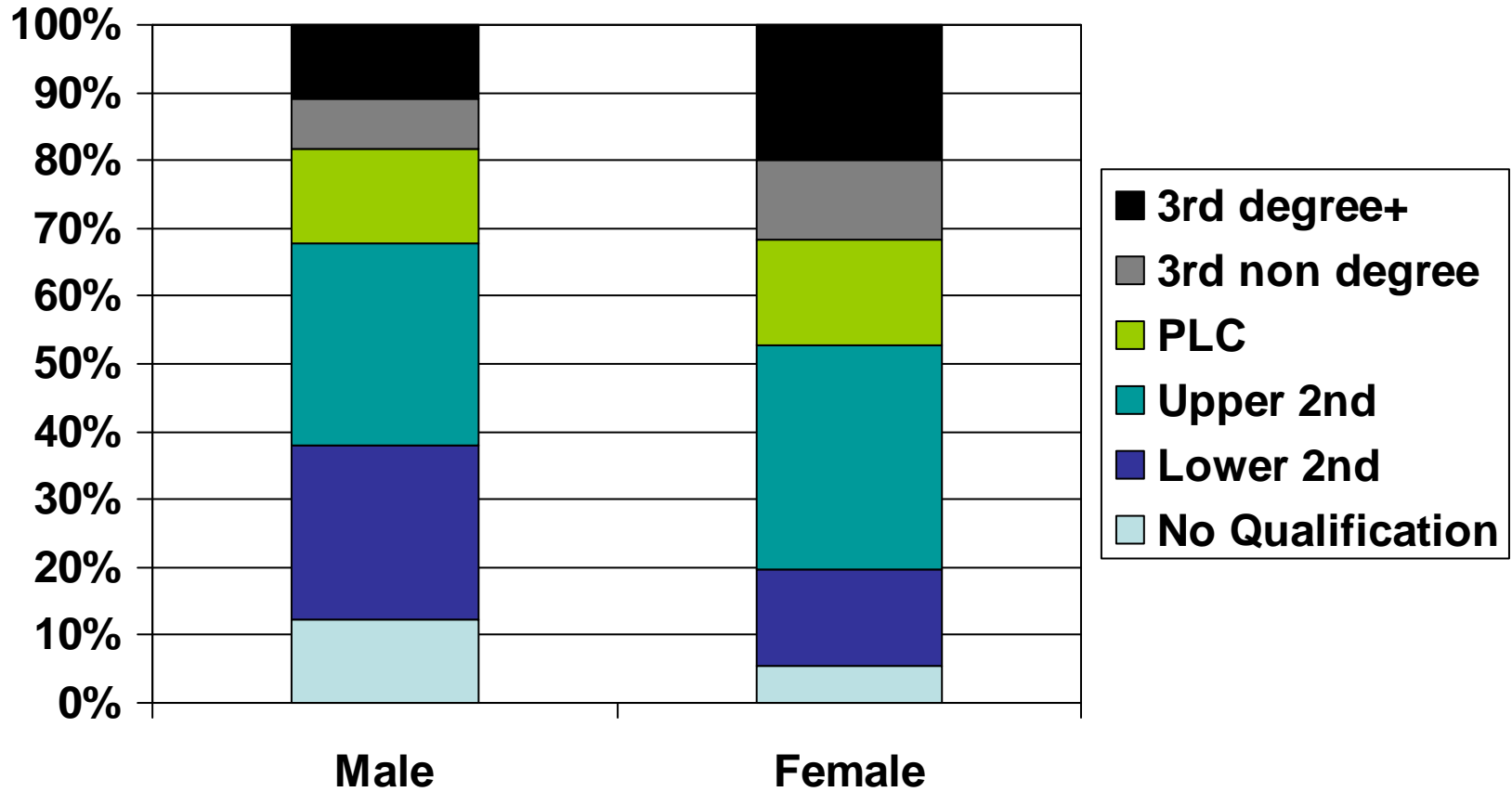
Composition of Unemployment by Age Group



Composition of Unemployment by Education



Composition of Unemployment by Education



Labour Market Status 2009Q1 by Status 2008Q1

Labour Market Status 2009			
%			
Status 2008:	Employed	Unemployed	Not in LF
<i>Employed</i>			
All	91.2	4.4	4.4
Males	91.6	5.6	2.8
Females	90.8	3.0	6.3
<i>Unemployed</i>			
All	21.4	50.2	28.4
Males	19.1	55.7	25.1
Females	26.5	37.5	36.0
<i>Not in LF</i>			
All	9.7	3.8	86.5
Males	10.6	6.3	83.2
Females	9.2	2.4	88.4

Unemployed in 2008Q1 by Status in 2009Q1

Unemployed, 2008Q1	Status in 2009Q1 (%)				
	Employed	Unemployed	Not in Labour Force	Of which	
				Student	Home Duties
All	21.4	50.2	28.4	27.7	39.8
Male	19.1	55.7	25.1	40.0	7.3
Female	26.5	37.5	36.0	18.1	64.8
15-19	14.6*	42.5*	43.0*	44.0	26.0
20-24	23.7*	50.5	25.8*	26.5	44.7
25-34	28.6	55.4	16.0*	63.4	16.1
35-44	21.2	43.7	35.1	21.6	55.8
45-54	16.2*	53.0	30.8	13.5	35.4
55-59	13.7*	40.3*	46.0*	14.0	58.1
60-64	8.4*	74.9*	16.7*	--	--

Unemployed in 2008Q1 by Status in 2009Q1

Unemployed, 2008Q1	Status in 2009Q1 (%)				
	Employed	Unemployed	Not in Labour Force	Of which	
				Student	Home Duties
No Qualification	5.8*	55.6	38.6	11.1	21.7
Lower 2 nd	12.4*	52.0	35.6	33.2	39.2
Upper 2 nd	25.6	53.8	20.6	29.9	49.6
PLC	29.1*	48.0*	23.0*	42.9	36.7
3 rd non degree	26.5*	38.4*	35.1*	35.2	37.4
3 rd degree+	49.9	38.9*	11.2*	23.2	30.1



National Profiling of the Unemployed in Ireland

**Philip O'Connell, Seamus McGuinness,
Elish Kelly and John Walsh**

ESRI Research Series No. 10

Introduction

- **Profiling**
 - **Formal Method for Early Identification of Individuals with High Risk of Long-Term Unemployment**
 - **Referral of High Risk Clients to Appropriate and Effective Interventions**
- **Advantages**
 - **More Systematic, Rigorous, Accurate Identification of those with High Risk**
 - **Allows for Ranking of Individuals by Probability of Long-Term Unemployment**
- **Caveats**
 - **Business Cycle** (more effective when labour market tight)
 - **Policy Changes** (e.g. UE Benefit Eligibility Criteria)

A Large-scale National Experiment

1. Sept-Dec 2006: All Claimants Making New Claims for Jobseekers payments

- **Specially Devised Questionnaire:**

Education

Literacy/Numeracy

Transport

(Un)Employment History

Health

Community Employment Scheme

- **Additional data from Live Register**

Marital Status

Spousal Earnings

Location

2. Track through administrative records for next 18 months

Population and Sample

Profiling Data	Numbers
Original Population	60,189
Exclusions:	
– <i>Duplicates</i>	1,164
– <i>None JA and JB Claims</i>	1,863
	57,162
Questionnaire Information	44,075
JA and JB Claims:	33,754
– <i>Leavers at 12 Months</i>	19,853 (59%)
– <i>Stayers at 12 Months</i>	13,901 (41%)

Summary of Results

- **Increases Probability of Remaining on Live Register**
 - Age
 - Children
 - Made Claim in Last 5 Years & had been Signing On for 12+ Months
 - On CE for 12+ Months
 - Number of Claims
 - Job Seekers Assistance
 - Literacy/Numeracy Problems
 - Bad Health

- **Increases Probability of Exiting to the Labour Market**
 - Education
 - Recently Employed
 - Would Move for a Job
 - Own Transport
 - Job Seekers Benefit
 - Married and Spousal Income

Model in Practice

- **Male Claimant:**

i) **Employed in Last Month** (15.2%)

ii) **Job Seekers Benefit** (19.5%)

iii) **Leaving Certificate** (6.4%)

⇒ **Probability of Leaving the Live Register is 41.1%**

BUT

i) **On CE in Previous 5 Years** (-6.9%)

ii) **Signing on for 12+ Months** (-16.6%)

iii) **Lives in Donegal** (-5.2%)

⇒ **Probability of Leaving the Live Register Falls to 12.4% (41.1-28.7)**

Predictive Power – Female Model

	50%	60%	70%	80%
	Cut-off	Cut-off	Cut-off	Cut-off
Correctly Predicted Stayers:	9,088	7,299	5,062	2,516
Total:	13,024	9,668	6,239	2,949
Percentage (%):	0.698	0.755	0.811	0.853
<i>Percentage of Stayers</i>				
<i>Correctly Predicted:</i>	0.664	0.743	0.818	0.874
<i>Percentage of Leavers</i>				
<i>Correctly Predicted:</i>	0.711	0.759	0.810	0.850

Profiling in the Recession I

- **Most Important factors determining LT unemployment**
 - **Low educational attainment**
 - **A history of LT unemployment / low labour market attachment**
 - **Literacy / Numeracy problems**
 - **Age**
- **These effects are largely independent of the business cycle**
 - **Lack of human capital makes individuals most prone to LT unemployment**
- **Some refinements of the questionnaire are necessary to incorporate business cycle effects (e.g. inclusion of sector and occupation information).**
 - **Unlikely to radically alter the models performance.**

Summary

- **This Framework for Profiling the Unemployed is:**
 - **Accurate**
 - **Objective and Fair**
 - **Universal**
- **The model makes sense and has good predictive power**
- **The framework is flexible**
 - **Allows for Targeting Based on Resources (Costs) and Objectives (Goals)**
- **Success of profiling depends on effective activation programmes**



**Benchmarking, Social Partnership and Higher Remuneration:
Wage Setting Institutions and the Public-Private Sector Wage Gap
in Ireland**

Elish Kelly, Seamus McGuinness and Philip O'Connell

The Economic and Social Review, Vol. 40, No. 3, Autumn 2009

Motivation

- The Relationship Between Pay in Public and Private Sectors is of Importance:
 - Public Sector Pay Sufficient Level to Attract and Retain High Quality Individuals
 - Public Sector Pay Should Not Lead Private Sector:
 - i) Implications for an economy's competitiveness (via wage inflation)
 - ii) Influence competition for workers - 'crowd-out' the private sector
 - Financed through Taxation – Governments Need to Ensure Tax Resources Are Used Optimally (particularly where an economy is fiscally constrained)

Recent Literature

- **Boyle, McElligot & O’Leary (2004)**
 - Overall gap and across the earnings distribution between 1994 and 2001 (ECHP data)
 - Findings: Public sector premium ranging from 10 to 17% (13% in 2001)
Premium greatest for low-paid workers and smallest at the top of the distribution
- **O’Connell & Russell (2006)**
 - Wage differential for third-level graduates in 2004 (graduate cohort data)
 - Findings: Public sector workers earned 9% more per month (20% per hour)
Inclusion of bonuses reduces premium to 7%
- **Ernst & Young (2007)**
 - Overall gap and across the earnings distribution in 2003 (NES Data)
 - Findings: Public sector premium (6-10%); Public sector discount top of earnings distribution
 - Results do not take account of pay increases awarded under Benchmarking (Report No. 1)
- **Lucifora & Meurs (2006)**
 - Internationally, public sector pay premium found to be small (UK, France and Italy)

Context

Wage Determination Processes that Awarded Public Sector Workers Significant Pay Increases:

1. *Public Service Benchmarking Body*

2003-06: 2-27%, avge 9%

2. *Review Body on Higher Remuneration in the Public Sector*

3. *Social Partnership Pay Agreements*

- Applies to both public and private sector workers (union density; implementation clauses)

Data & Methodology

- 2003 and 2006 National Employment Surveys
 - Workplace Survey, Covering Both Public and Private Sectors, Conducted by CSO
 - 89,000 Individuals Included in 2003 NES Sample and 79,000 in 2006
 - Representative and Rich Datasets for Estimating Earnings Equations
- Sample Used In Study
 - Full-Time, Permanent Employees Aged Between 25 and 59 (semi-state employees excluded)
 - Final Samples: 2003 = 27,417 and 2006 = 32,993
 - Data Weighted
- Controls Used In Study
 - Gender, Experience and Experience Squared, Education-Level, Supervisory Responsibilities, Professional Body Member, Shift-Work, Hours Worked (Weekly), Overtime Hours, Occupation
 - Excluded Variables: TU Membership and Tenure
 - In Line with Ernst & Young (2007) Study, Except for Age

Change in Weekly Wages Between 2003 and 2006

	2003 (March)	2006 (March)	Percentage Change
All-Employees			
<i>Total:</i>	566.51	677.04	19.5
<i>Public Sector:</i>	660.82	839.04	27.0
<i>Private Sector:</i>	538.52	628.35	16.7
<i>Raw Public Private Sector Wage Differential:</i>	22.7	33.5	

Source: Central Statistics Office's National Employment Surveys, 2003 and 2006

Compositional Differences Between Public and Private Sector Employees

- Public Sector Employees:

- Higher levels of education (59 per cent third-level compared to 33 per cent)
- More work experience (20 years compared to 16 years in private sector)
- Higher proportion in professional and associate professional occupations

⇒ Supports Public Sector Employees Having Higher Earnings

- Other Differences:

- Private sector employees work longer hours (40 hours per week compared to 36 hours)
- Private sector employees more likely to undertake supervisory responsibilities
- Gender: 64 per cent of public sector workers are female compared to 35 per cent in the private sector

2003 and 2006 Public Sector Pay Gap: Overall Gap – OLS Models

	2003 All	2006 All	2003 Males	2006 Males	2003 Females	2006 Females
Public Sector	0.097***	0.216***	0.053**	0.225***	0.138***	0.214***

Controlling for: Gender, Education, Experience, Occupation (9),
 Hours worked, Overtime hours, Shift work,
 Supervisory role, Membership of professional body

2003 and 2006 Public Sector Pay Gap: Across the Earnings Distribution

	All	Males	Females
10%	0.31***	0.31***	0.30***
20%	0.29***	0.30***	0.27***
80%	0.13***	0.15***	0.12***
90%	0.08***	0.11***	0.09***

2003 Public Sector Pay Gap: Adjusting for Pension Coverage:

**96% of public sector workers covered by employer sponsored pensions,
62% in private sector. Adding 10% to wages of all workers in pension
schemes increases the public sector premium by 3%**

	All	Pension All	Males	Pension Males	Females	Pension Females
Public Sector	0.097***	0.129***	0.053**	0.085***	0.138***	0.171***

Summary

- Public-private sector wage gap increased from 9.7 to 21.6% between 2003 and 2006
- Discount at top of earnings distribution eliminated - replaced by sizeable premium
- Adjusting for pension coverage adds additional 3 percentage points to gap

Seminar Paper – Oct 8th

- New Data – Oct 2007 National Employment Survey
- Focus on sub-sectors within the Public Sector
- New method – Propensity Score Matching
 1. Describe characteristics of people (human capital) and occupations in public & private sectors
 - 2: Compare earnings among those with similar propensity scores to be in public or private sectors

In addition to controlling for human capital, our PSM models also match on occupations within sectors

Civil Service:

- Office Clerks, Other Professionals Skilled Agriculture and Fishery Workers.

Education:

- Teaching Professionals, Teaching Associate Professionals.

Health:

- Life Science & Health Professionals, Life Science & Health Associate Professionals, Other Associate Professionals.

Defense:

- Legislators and Senior Officials, Other Associate Professionals, Personal & Protective Service Workers.

Non-Commercial Semi-States:

- No particularly distinct occupational effects detected.

Commercial Semi-States:

- Personal & protective Service Workers, Office Clerks, Drivers and Mobile Plant Operators.

Local Authority:

- Agriculture, Fishery & related Labourers

Summary results

- Confirmation of the overall scale of the public sector wage premium: > 20% in Oct 2007

Wage Premium	Sector
High	Education Defence
Medium	Health Commercial Semi-State
Low	Civil Service, Local Authorities, Non-commercial semi-state