



Central Statistics Office

An Phrómh-Oifig Staidrimh

Administrative Data Seminar

New social statistics through data linkage

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Erin Room

Dublin Castle



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Background

- Right of access to records of public authorities
- Wider range of administrative data sources
- Further processing for statistical purposes
- Data linkage permissible under statistical legislation



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CSO Data Protocol (2005)

- Discussed and agreed with National Statistics Board
- Approved by Data Protection Commissioner
- Conditions for data linkage:
 - must comply with all statistical and data protection legislation
 - must comply with the CSO Code of Practice on confidentiality
 - must be for statistical purposes only
 - must have got the prior formal approval of the DG of the CSO
 - The CSO should maintain a publicly accessible register of all data linkage activities



Additional operational safeguards

- Electronic transfer to the CSO using a secure encrypted tunnel
- Names and addresses are not used
- Convert PPSNs to CSO numbers



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Some data sources

- Social welfare, taxation
- Births and deaths
- Education (post-primary, HEA, FÁS)
- Farming
- Pensions
- Driving licences
- Residential tenancies, work permits, housing grants, etc
- CSO surveys (SILC, QNHS, NES)



Examples

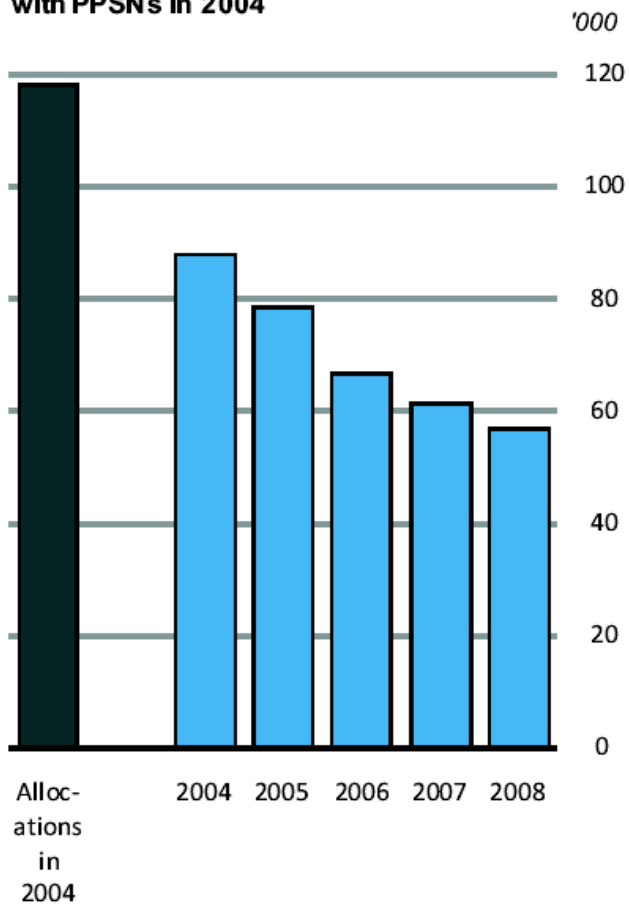
- Several examples, but we'll highlight two
 1. Foreign nationals – PPSN allocations, employment and social welfare activity
 2. Live Register flow analysis
- Both examples available at http://www.cso.ie/releasespublications/pr_labfor.htm



Foreign Nationals: PPSN Allocations, Employment and Social Welfare Activity, 2008

(published 23/12/2009)

Activity in 2004-2008 of those issued with PPSNs in 2004



Foreign Nationals: PPSN Allocations, Employment and Social Welfare Activity, 2008

| Year PPSN allocated | Allocations to foreign nationals aged 15 and over | % with no activity 2002-2008 | % with activity by year | | | | | |
|---------------------|---|------------------------------|-------------------------|------|------|------|------|------|
| | | | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| 2003 | 74,717 | 14% | 76% | 65% | 51% | 47% | 44% | 43% |
| 2004 | 117,983 | 14% | | 74% | 66% | 56% | 52% | 48% |
| 2005 | 171,501 | 18% | | | 68% | 66% | 57% | 51% |
| 2006 | 203,927 | 21% | | | | 64% | 64% | 53% |
| 2007 | 188,738 | 28% | | | | | 62% | 58% |
| 2008 | 127,695 | 45% | | | | | | 55% |

Less than half of foreign nationals assigned PPSNs in 2004 had activity in Ireland in 2008

Of the total of 118,000 foreign nationals aged 15 and over who were assigned PPSNs in 2004, only 60,000 had activity in Ireland in 2008.



Foreign Nationals: PPSN Allocations, Employment and Social Welfare Activity, 2008

Table 6a - PPSN allocations by sex and broad nationality group, 2005-2008

| | | <i>Numbers</i> | | | | | | |
|---------------------|--------------|----------------|----------------------------|---------------------|---------------------|--------------|---------------|-------------------------|
| Year PPSN allocated | Sex | UK | EU15 excl Ireland & the UK | EU15 to EU25 states | EU25 to EU27 states | USA | Rest of world | Total foreign nationals |
| 2005 | Total | 20,645 | 22,057 | 111,780 | 906 | 3,809 | 26,162 | 185,359 |
| | Male | 11,696 | 11,552 | 71,681 | 478 | 1,733 | 14,132 | 111,272 |
| | Female | 8,949 | 10,505 | 40,099 | 428 | 2,076 | 12,030 | 74,087 |
| 2006 | Total | 22,285 | 25,578 | 138,879 | 3,589 | 4,068 | 32,408 | 226,807 |
| | Male | 12,622 | 13,975 | 83,764 | 2,422 | 1,896 | 18,108 | 132,787 |
| | Female | 9,663 | 11,603 | 55,115 | 1,167 | 2,172 | 14,300 | 94,020 |
| 2007 | Total | 22,094 | 27,433 | 113,313 | 15,494 | 3,839 | 33,092 | 215,265 |
| | Male | 12,237 | 14,823 | 63,148 | 10,291 | 1,806 | 17,799 | 120,104 |
| | Female | 9,857 | 12,610 | 50,165 | 5,203 | 2,033 | 15,293 | 95,161 |
| 2008 | Total | 19,836 | 25,762 | 65,732 | 7,520 | 3,509 | 32,475 | 154,834 |
| | Male | 10,999 | 14,006 | 33,378 | 4,237 | 1,636 | 17,064 | 81,320 |
| | Female | 8,837 | 11,756 | 32,354 | 3,283 | 1,873 | 15,411 | 73,514 |



PPSN allocations, 2005-2008

by sex and broad nationality

| Year | Sex | ... | EU15 to EU25 | ... | Total |
|------|--------------|-----|-----------------|-----|----------------|
| | Total | ... | 111,780 | ... | 185,359 |
| 2005 | Male | ... | 71,681 | ... | 111,272 |
| ... | Female | ... | 40,099 | ... | 74,087 |
| ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... |
| ... | Total | ... | 65,732 | ... | 154,834 |
| 2008 | Male | ... | 33,378 | ... | 81,320 |
| | Female | ... | 32,354 | ... | 73,514 |



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Analysis of Live Register Flows, Q1 2009

- New analysis based on linking data from DSFA and CSO Business Register
- Examines the flow of people onto and off the Live Register, by sex, age, nationality, and by economic sector
- Compares old and new economic sector for those who regained employment



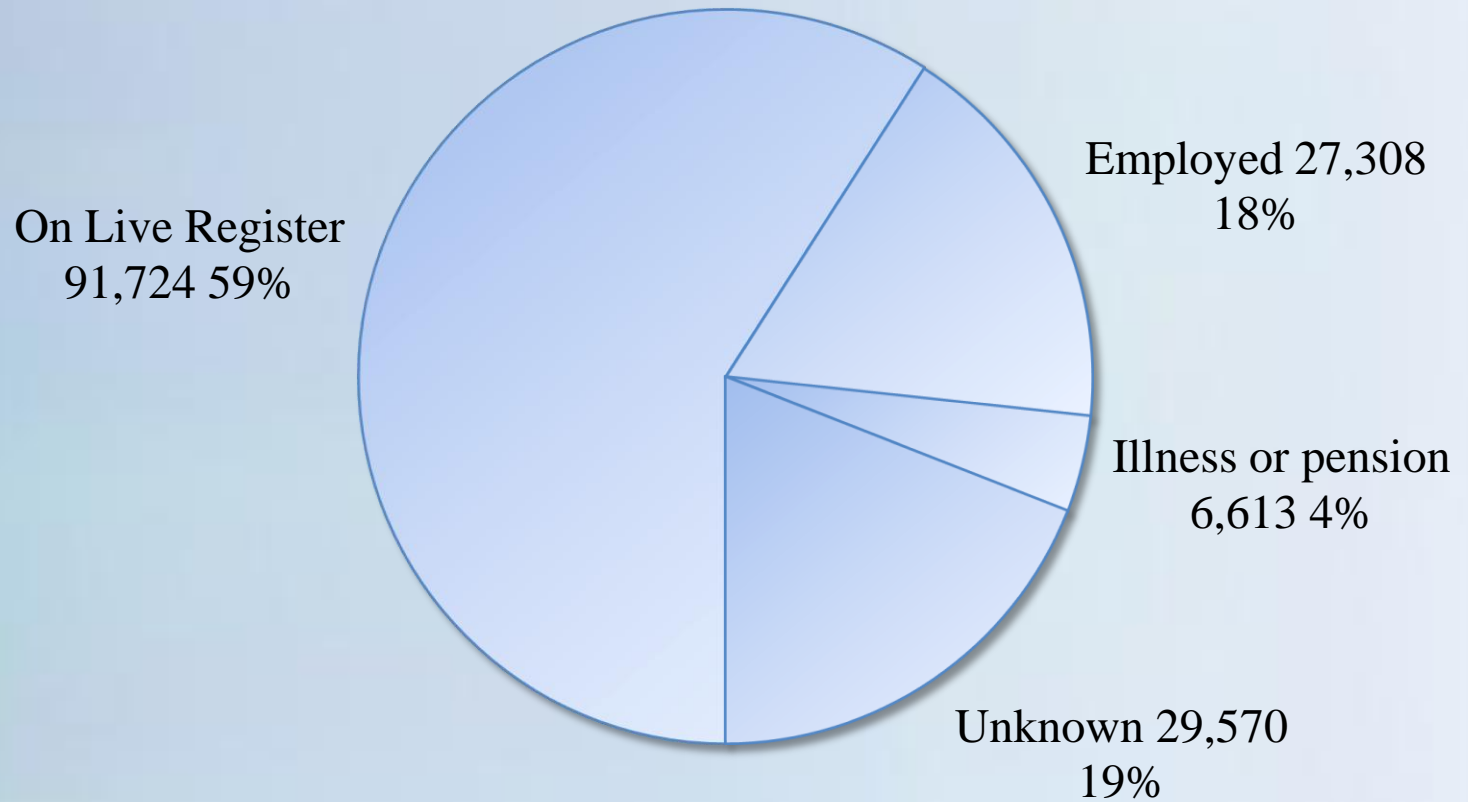
Analysis of Live Register Flows, Q1 2009

- From DSFA data we selected people who signed on in Q1 2009
- Linking on PPSN gave us the employment history, which then linked to the CSO Business Register
- This allowed us to expand on the information available about people on the Live Register.
- Did not include people already on Live Register at start of Q1 2009



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Status of Q1 2009 Live Register entrants at end June 2009



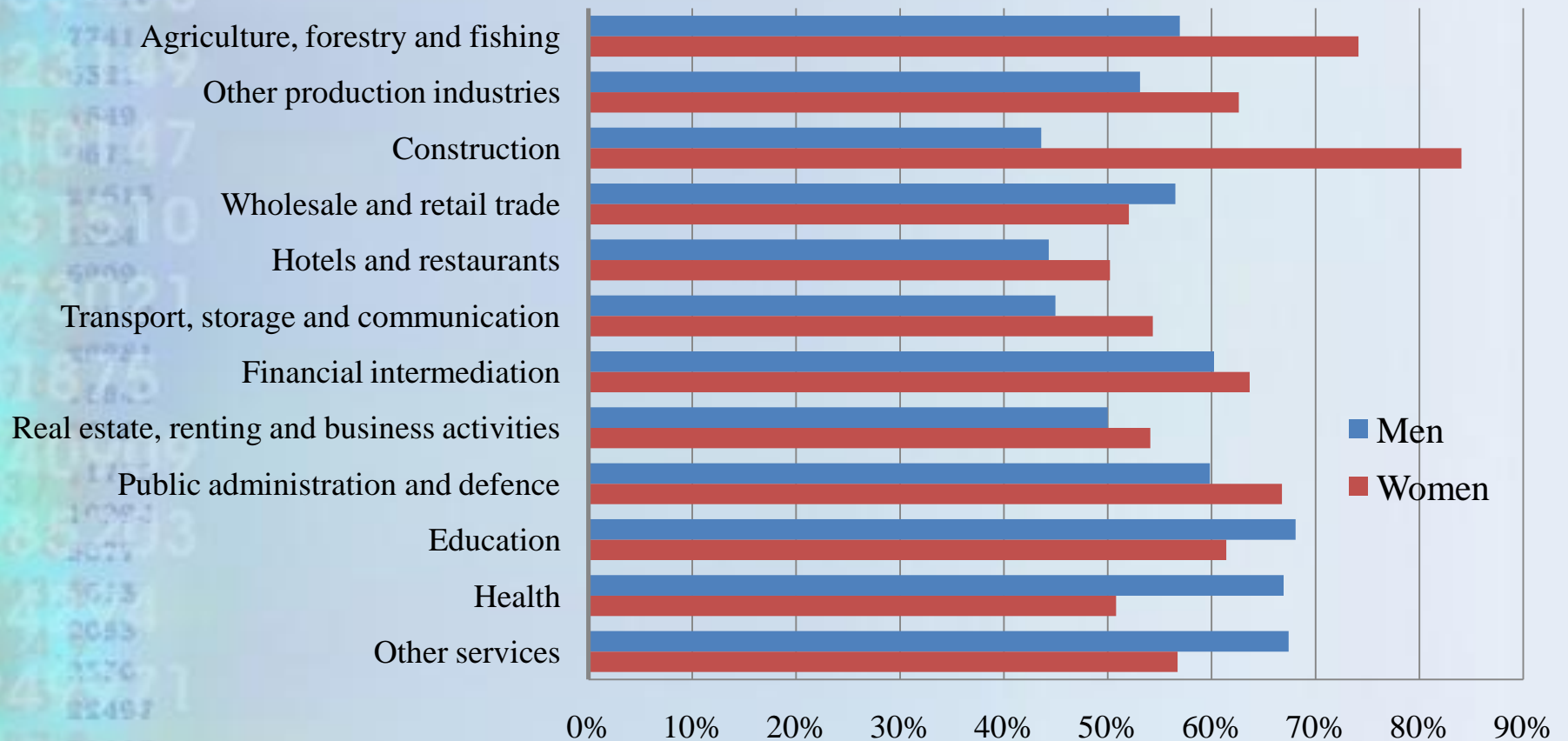


Status in June 2009

| | | | New entrants in Q1 2009 | | On Live Register | In PAYE employment |
|-----------------------------------|-------------|--|--------------------------------|--|-------------------------|---------------------------|
| Total new entrants Q1 2009 | | | 155,215 | | 59% | 18% |
| Age | Under 25 | | 42,344 | | 55% | 21% |
| | 25 and over | | 112,871 | | 61% | 16% |
| Sex | Male | | 103,949 | | 60% | 16% |
| | Female | | 51,266 | | 58% | 20% |
| Nationality | Irish | | 116,069 | | 62% | 17% |
| | Non-Irish | | 39,146 | | 51% | 19% |



Change of sector, by previous sector and sex





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Some general points

- Administrative data require work: liaison, data transfer, assessing linkage potential ...
- ... and will have at least some *statistical* limitations (such as timeliness, completeness, or accuracy) ...
- ... but can provide considerable benefit:
 - low cost
 - repeatable
 - no increase in response burden
 - quality can be very good despite statistical limitations
 - increased range of analysis possible
 - enables results that would not otherwise be possible
- ... and in general shows that data linkage gives significant value added.
- The support and cooperation of the custodians of administrative data is valuable and very welcome.