



The World Bank

# APPROACHES TO REVIEWING EQUITY AND SERVICE DELIVERY FOR SOCIAL SPENDING

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# Aim of presentation

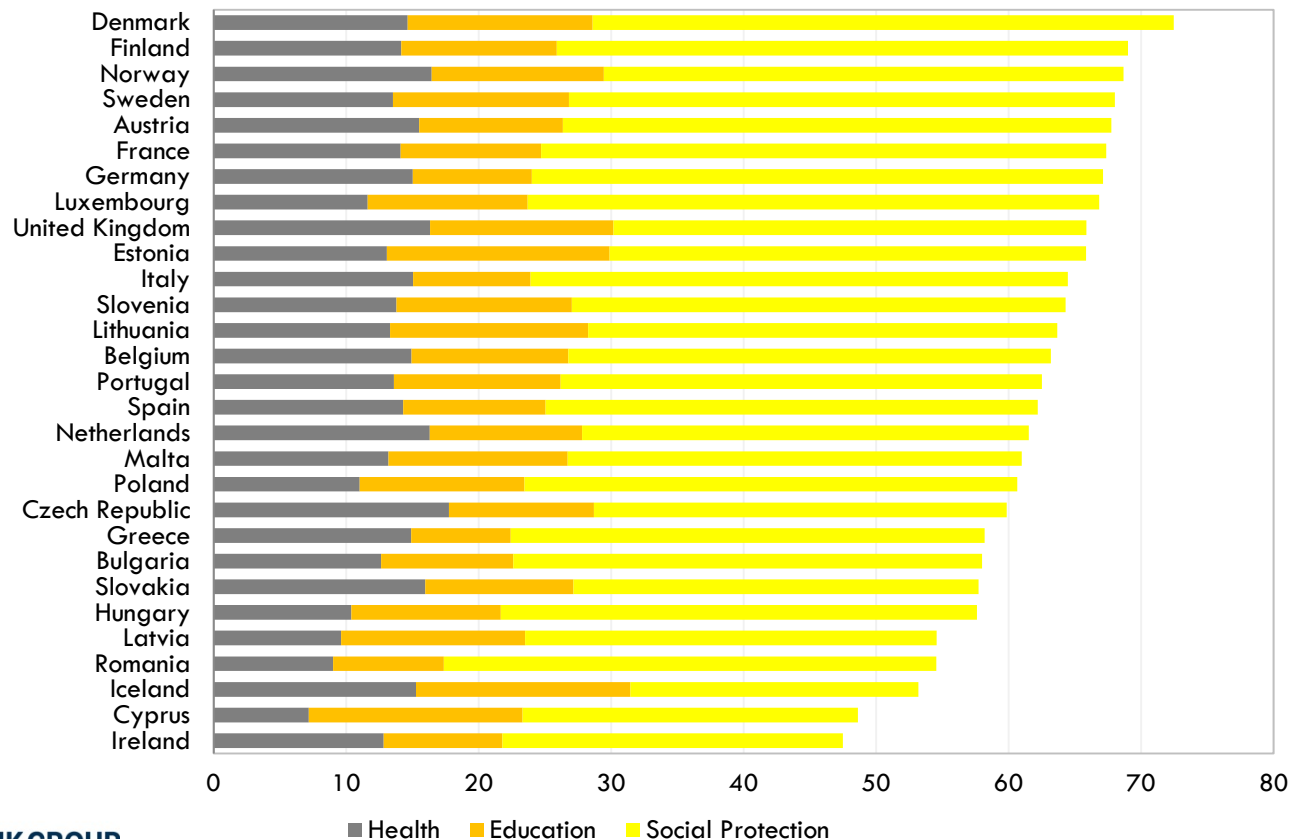
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- Present an array of tools/approaches used to look at distributional impact of fiscal policy and quality of service delivery.
- Focus on the social sectors: Education, health and social protection. Accounts for around 50 to 70% of public spending in EU countries.
- Use of recent EU examples—given the strong focus in the region on fiscal policy reforms due to consolidation needs.

# Social sector spending accounts for the major share of government spending in EU countries...

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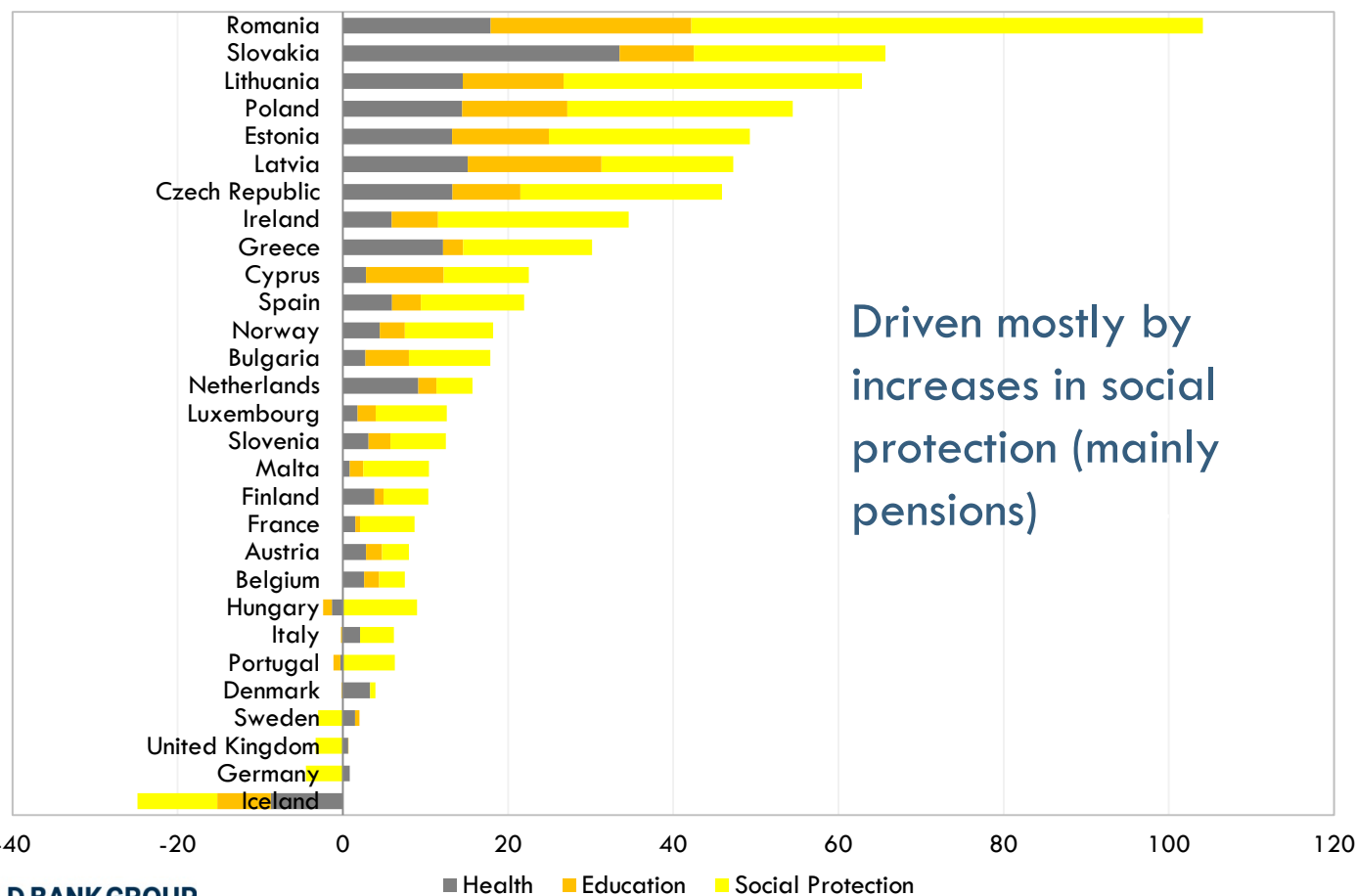
Social sector spending as % of total government spending, 2010



# ...and boomed over 2004-2008

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Real growth in social spending, contribution by sub-sector, during boom (2004-2008)



# Presentation structure

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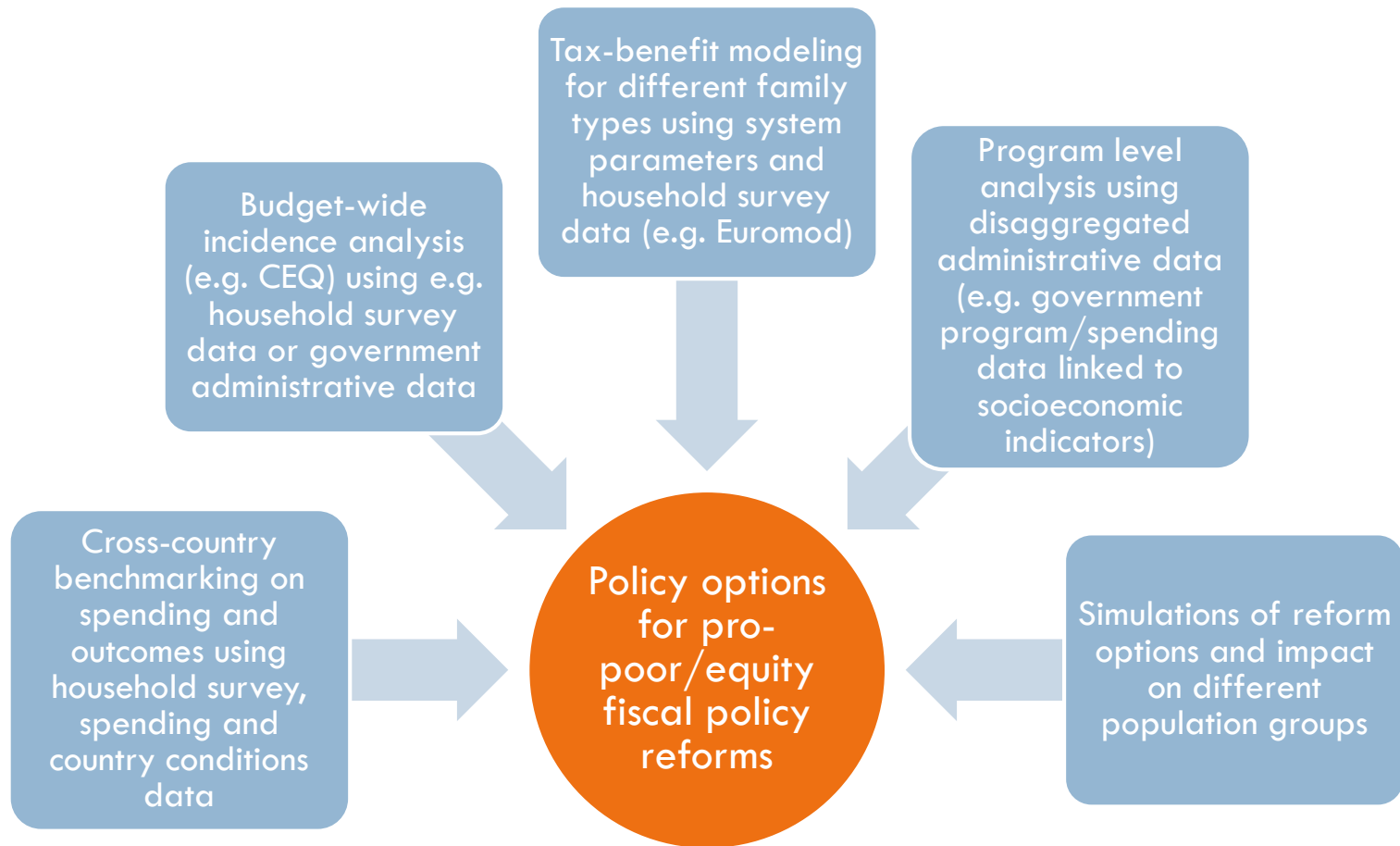
1. Tools to deepen spending analysis
2. Cross-country benchmarking
3. Linked administrative data
4. Tax-benefit models
5. Drawing from recent EU experience

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# Tools to deepen spending analysis

# Common approaches to approaching equity in expenditure/revenue reviews

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**Efficiency implications of these equity efforts in terms of (a) marginal tax rates and/or (b) program cost**

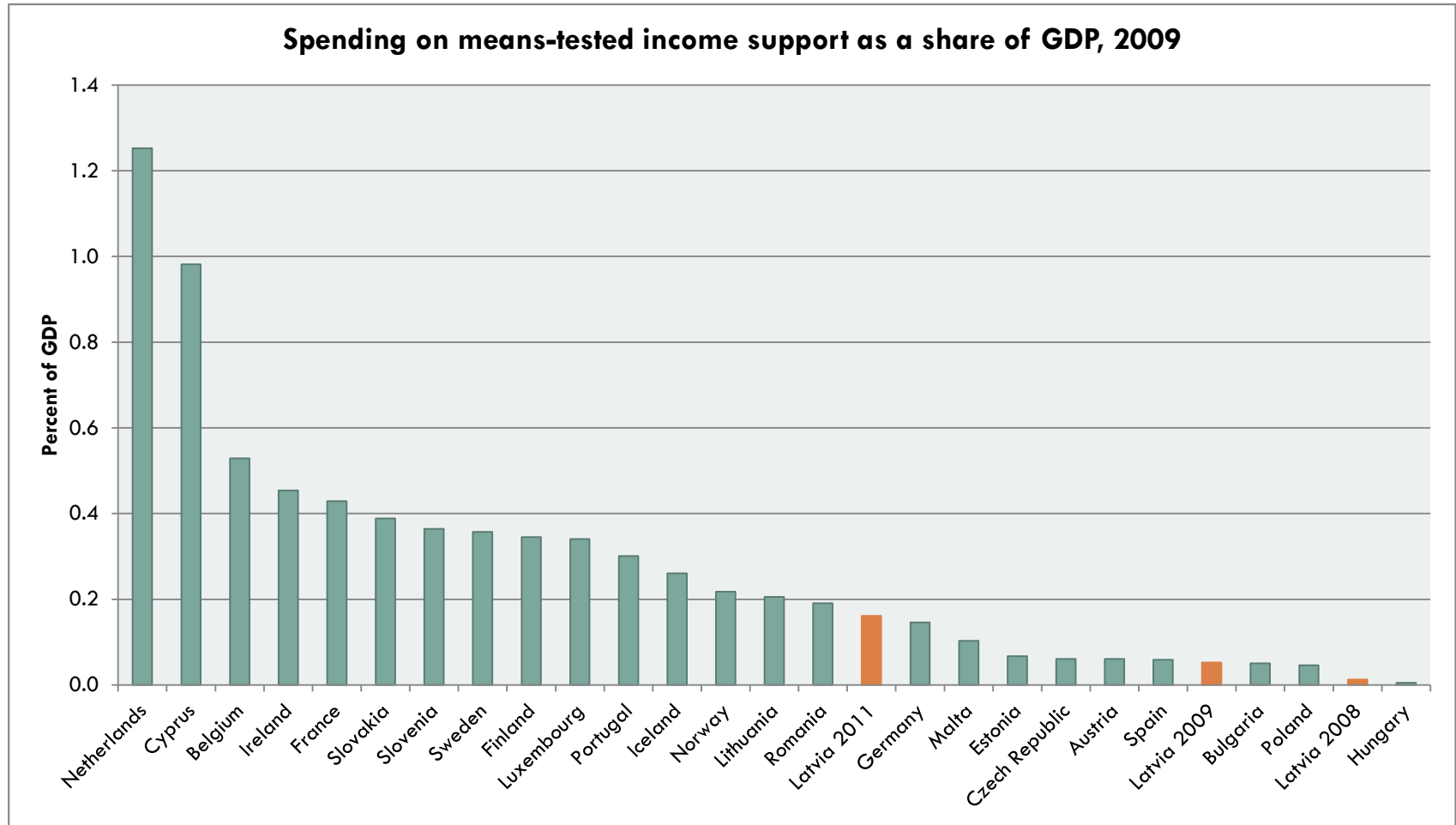
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# Cross-country benchmarking



# Large divergence in cross-country spending on means-tested income support for the poor in EU

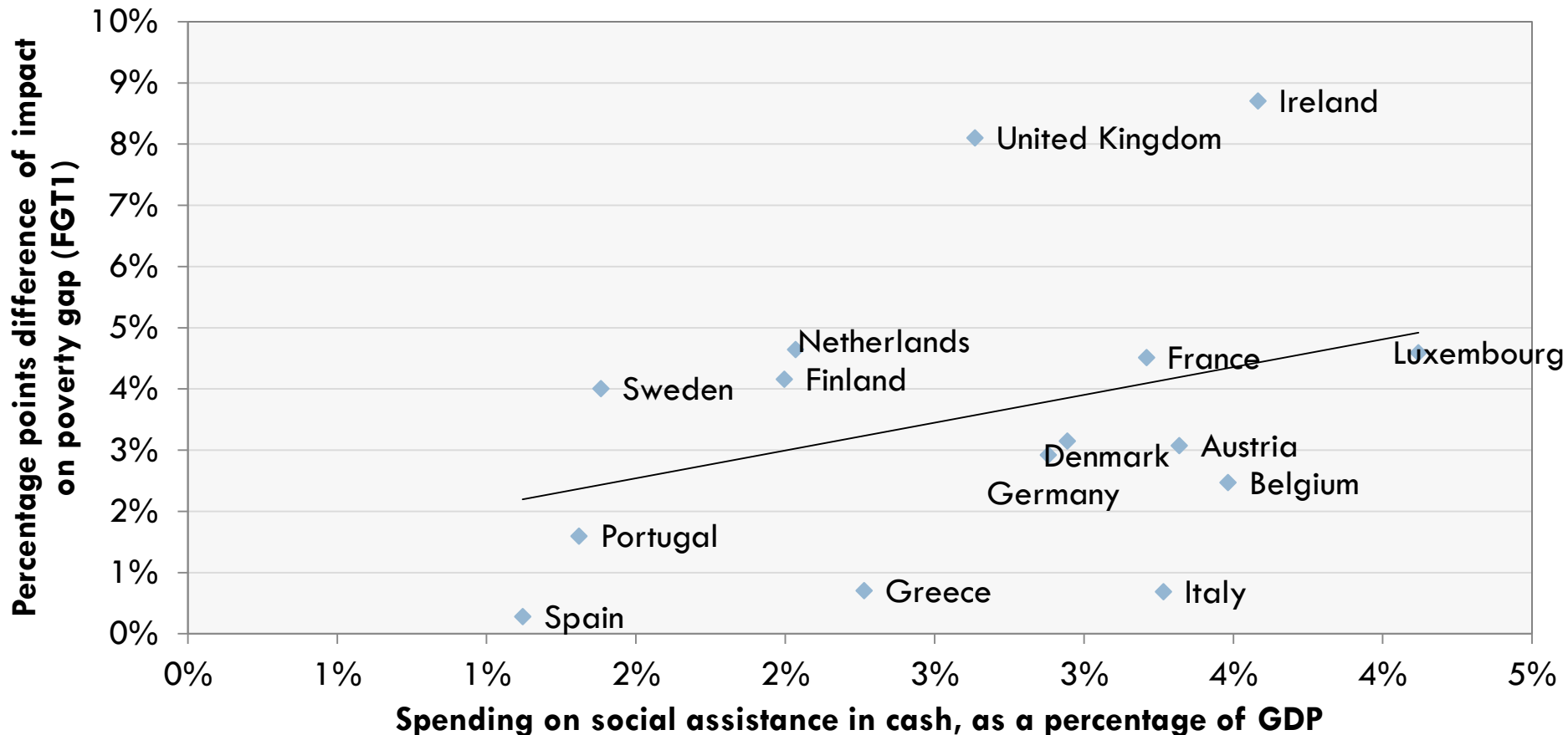
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# Social assistance in EU countries has very different poverty impacts not only due to spending levels, but also because of targeting

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## Reduction in at-risk-of-poverty rate and spending on cash social assistance benefits, 2009



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# Linked administrative data

# Link detailed spending data with other data sources for performance analysis (including equity)


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## Community/Individual data

e.g., demographic and socioeconomic data, poverty, unemployment and education levels

*Source: household service data, individual-level data from population registry/social insurance data, health insurance data from National statistical office and other government agencies*



The diagram shows a yellow box on the right containing the text 'Community/Individual data' and its examples and source. A yellow arrow points from this box to a central image of interlocking gears.

## Data on sectoral inputs

e.g.: school-level data on students, teachers, classes; facility-level data on medical personnel, equipment, pharmaceuticals

*Source: education, health, social protection/labor ministries*



The diagram shows an orange box at the bottom left containing the text 'Data on sectoral inputs' and its examples and source. An orange arrow points from this box to a central image of interlocking gears.

## Sectoral performance data

e.g.: school-level test scores data, re-employment, health treatment and outcomes

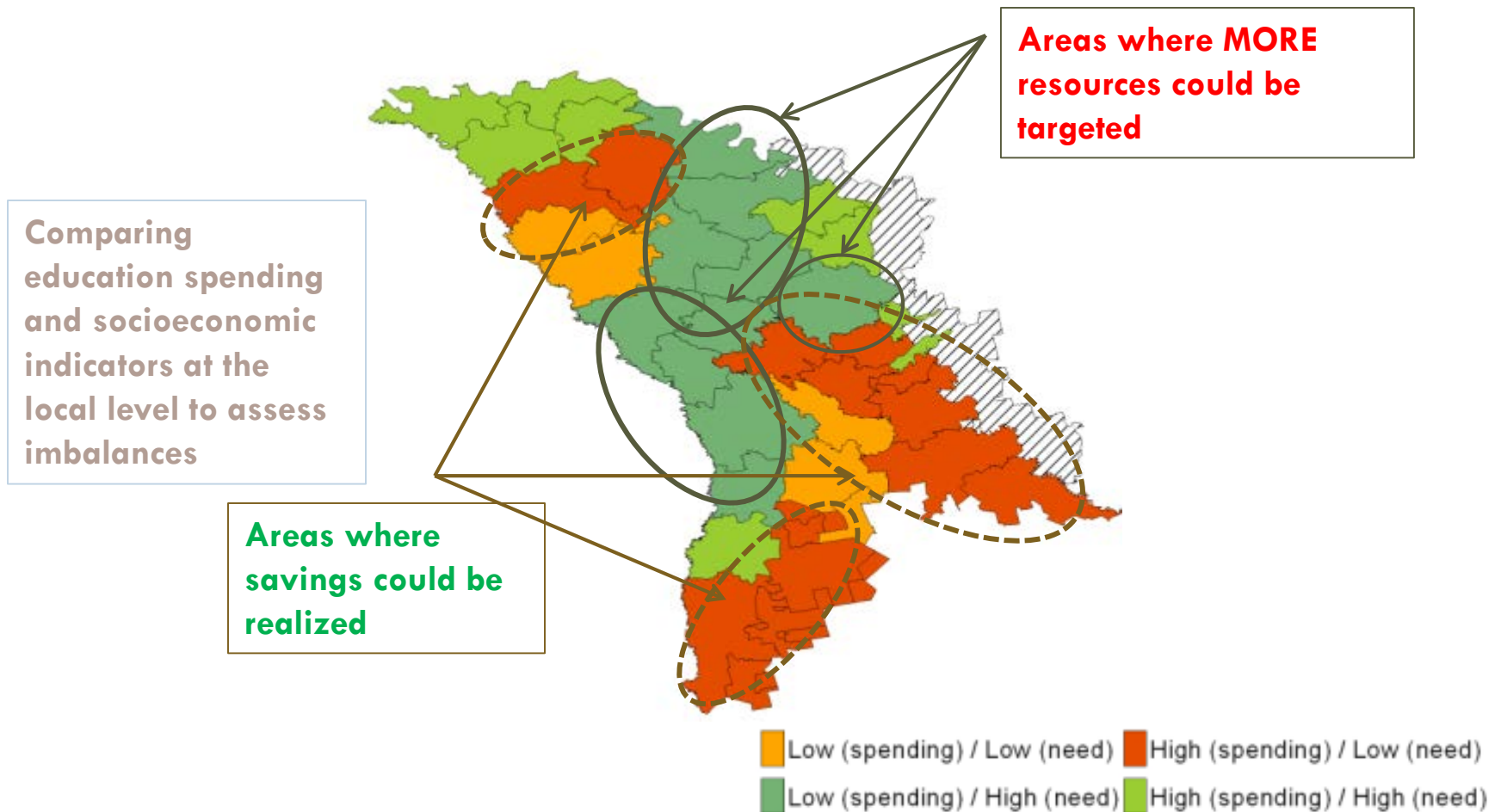
*Source: National assessment center, employment agencies, health authorities*



The diagram shows a green box at the bottom right containing the text 'Sectoral performance data' and its examples and source. A green arrow points from this box to a central image of interlocking gears.

# Case 1: Identifying education spending inequities in Moldova—Comparing per capita education expenditure by region vs. deprivation index

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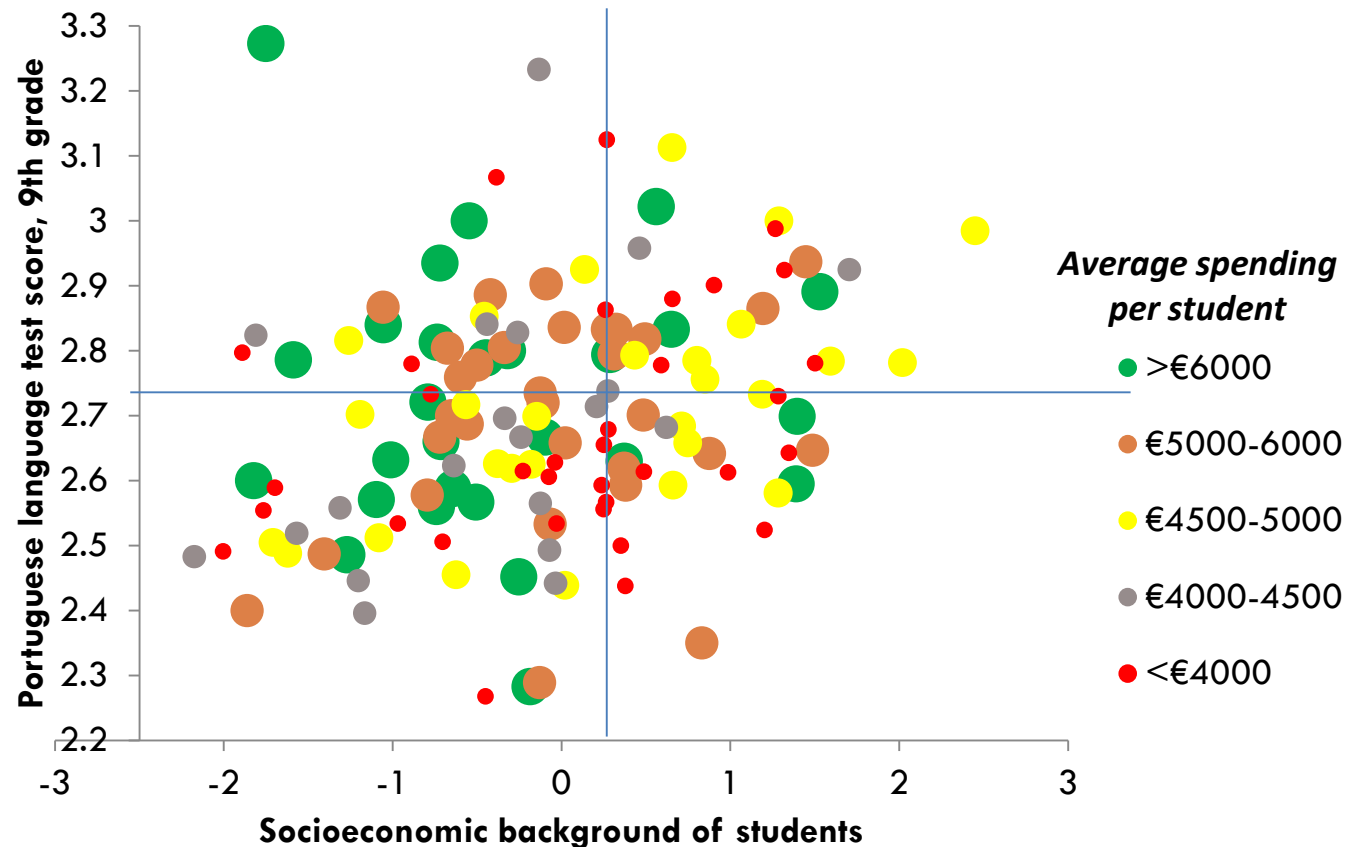
# Case 2: Examining school-level education spending, equity and performance in Portugal (1)

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Combining spending, test score and socioeconomic information to examine school performance in Portugal

➤ No clear pattern nationally

School spending per student, performance and socioeconomic context



Source: World Bank staff calculations based on data from Portugal's MEC.

Note: The socioeconomic background of students at a school is measured by an index built using data on the share of financial aid and the level of schooling attained by mothers. Only schools whose students' average age is 14.5 are displayed. The vertical and horizontal lines indicate national average weighted by enrollment.

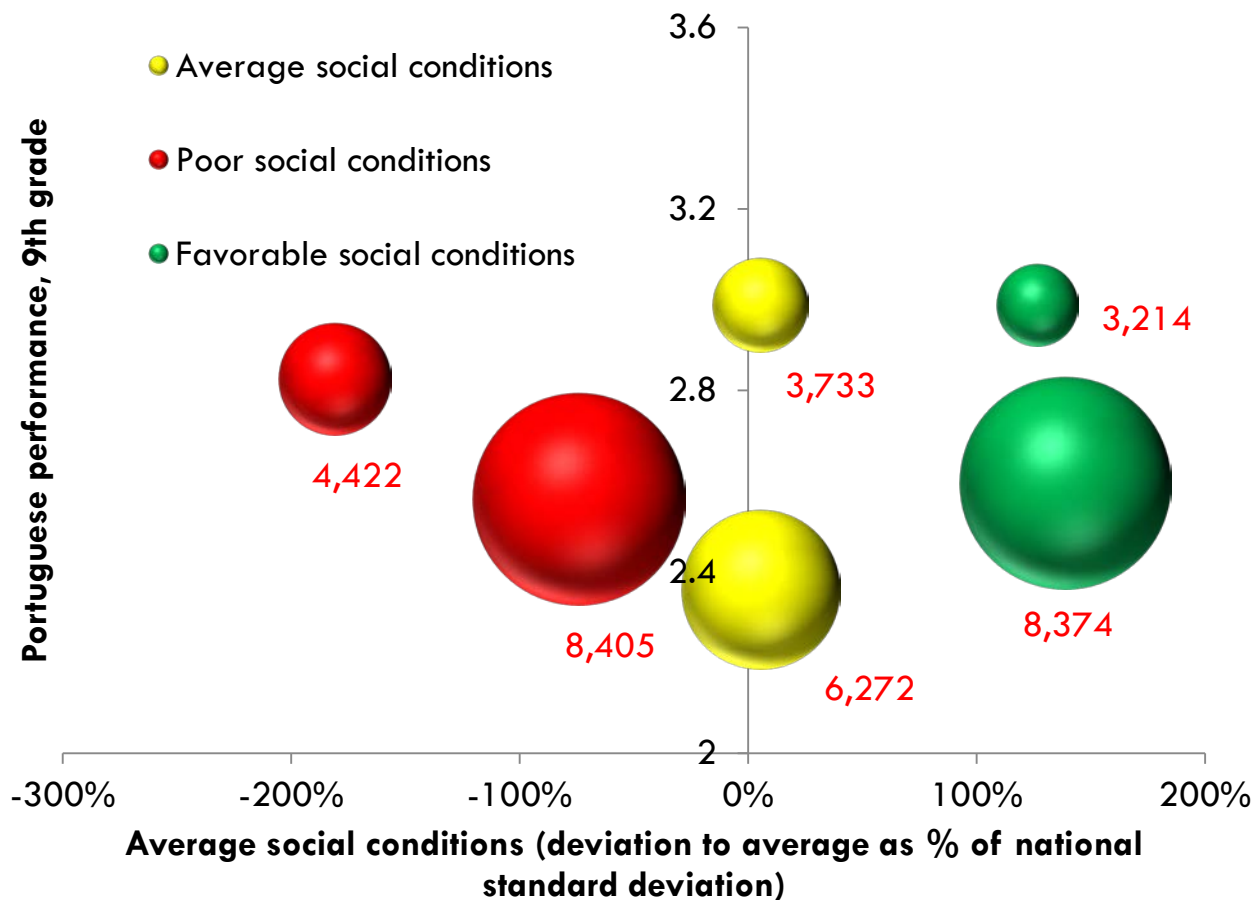
# Examining school-level education spending, equity and performance in Portugal (2)

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Allows the identification of poorer and better performing schools

- Spending per student not closely linked to performance
- Costs driven by teacher tenure

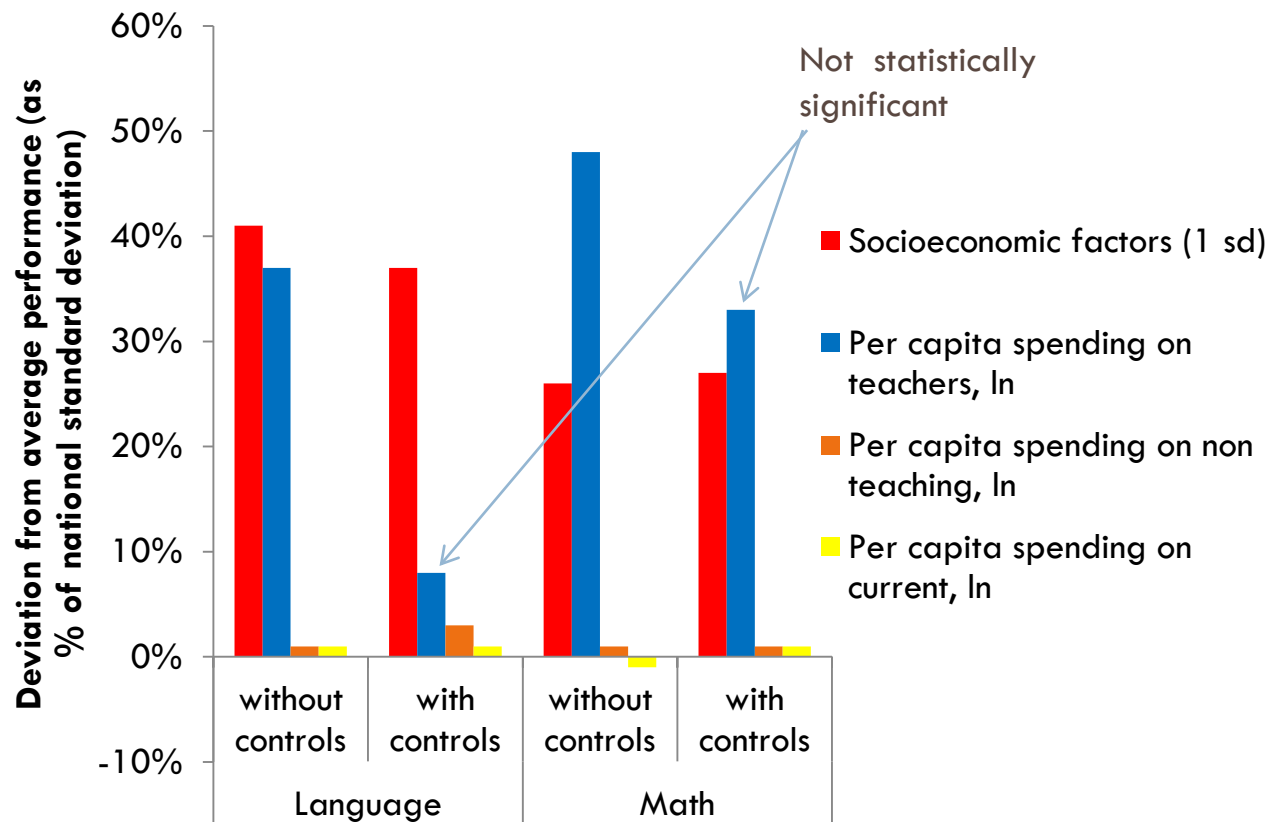
## Divergence in school performance



# Examining school-level education spending, equity and performance in Portugal (3)

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## Marginal impact of spending on 9th grade assessment results



Socioeconomic factors not resources dominate in explaining the diverging school performance

- Earlier intervention needed; in Portugal to stop grade repetition by 4th and 6th grades through programs such as individual tutoring

Source: World Bank staff calculations based on data from Portugal's MEC.

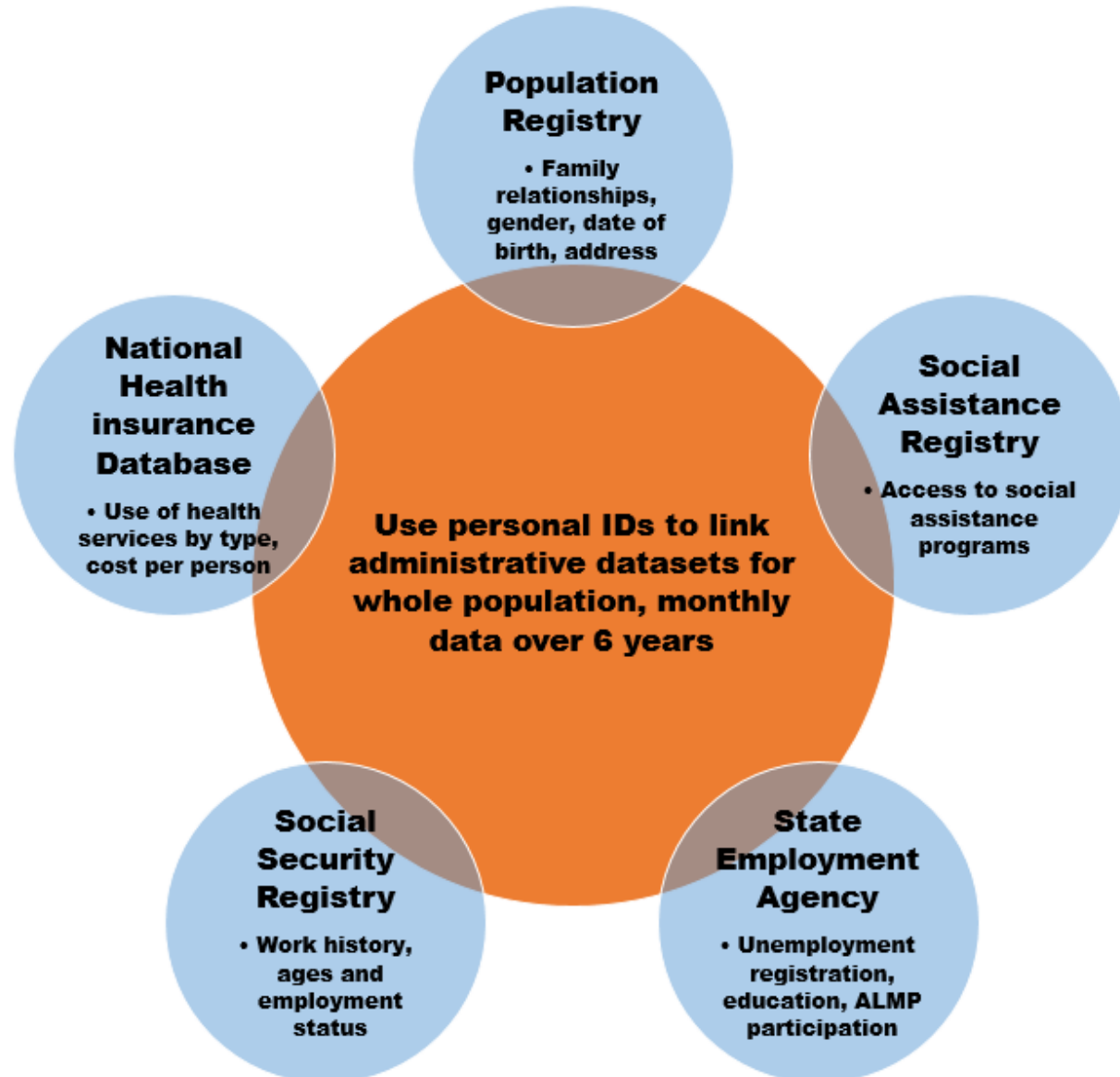
Notes: Controls are added for average class size (in 9th grade) and share of teachers with tenure. Once class size and tenure are taken into account, spending has no effect on students performance. This indicates that spending affects quality only through class size and tenure. The effects of class size are small and only significant for math performance.



# Case 3: Post-crisis tax-benefit program in Latvia: Based on data linking information from multiple sources

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- Large effort by government to link databases on service use and labor market conditions of whole population
- Multiple uses, e.g. evidence on benefit dependency, ALMP impact, health safety net usage
- Large data brings some complexity: approx 2 million people followed over 6 years monthly; close to 600,000 in ALMP study

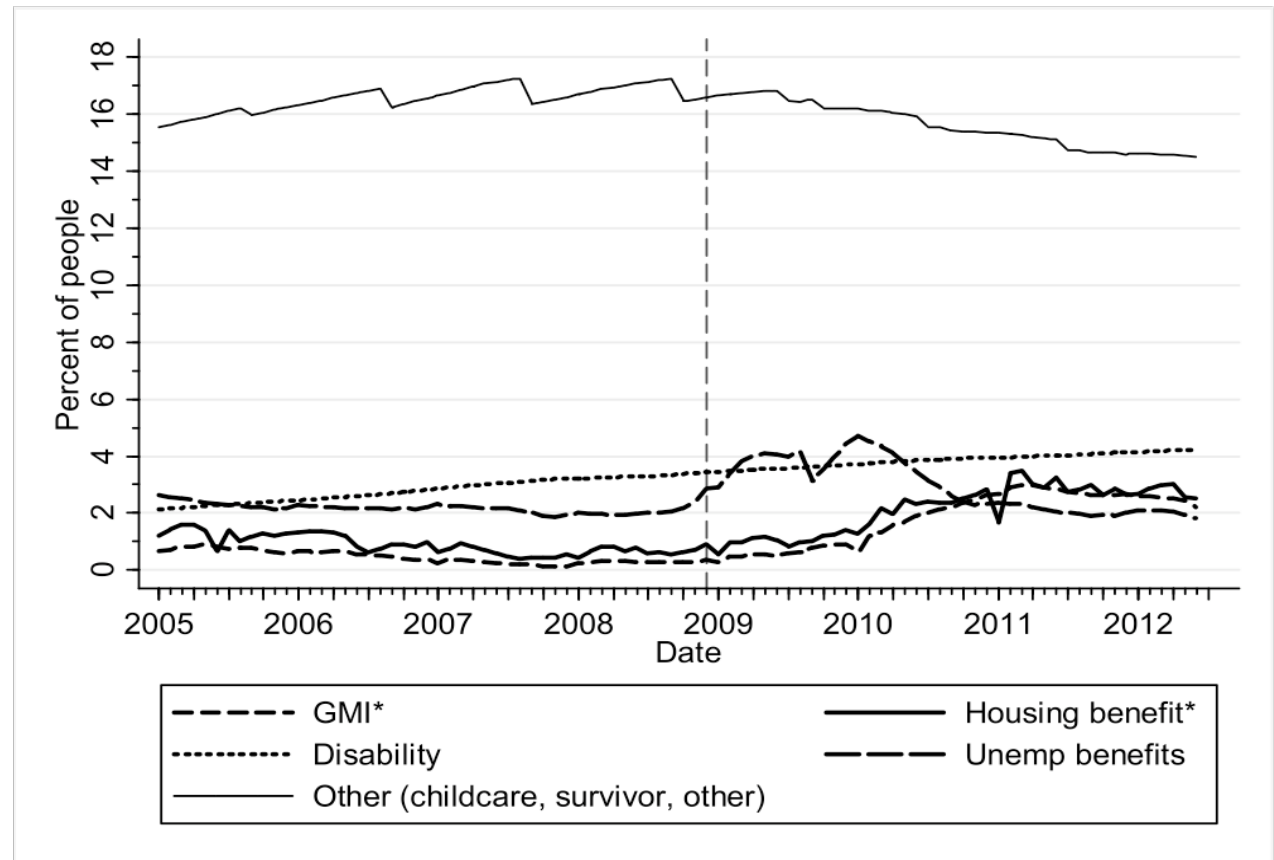


# Application 1: Even descriptive statistics can tell a lot: Evidence Does Not Support Widespread Benefit Dependency (1)

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Social assistance (Guaranteed Minimum Income, GMI) grew over crisis; but a maximum of 4 percent have participated at any one time ...

Benefit program incidence, 2005-2012

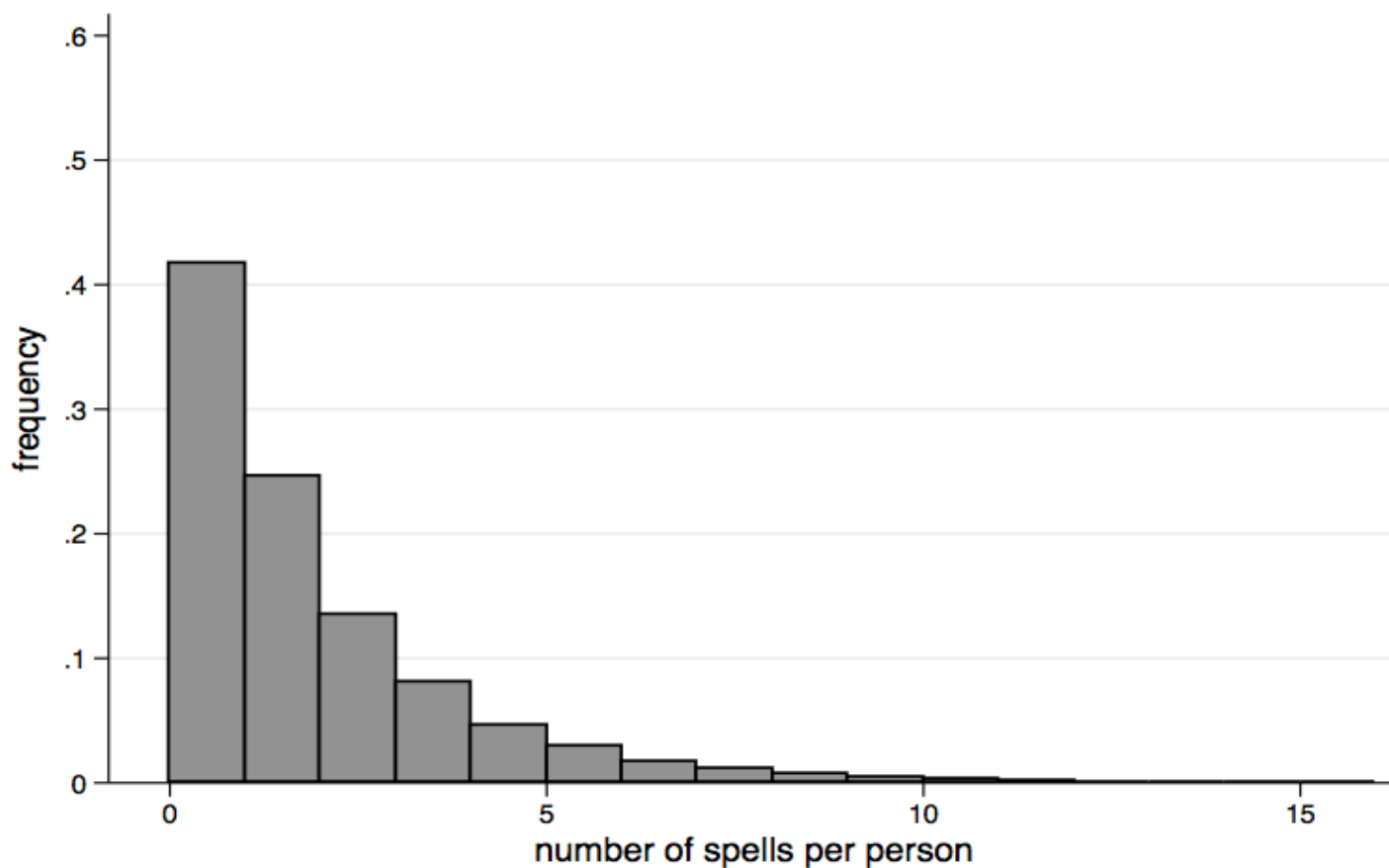


# Evidence Does Not Support Widespread Benefit Dependency (2)

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40% of people have only one GMI spell in 2006-2012

Number of GMI spells per person, 2006-2012

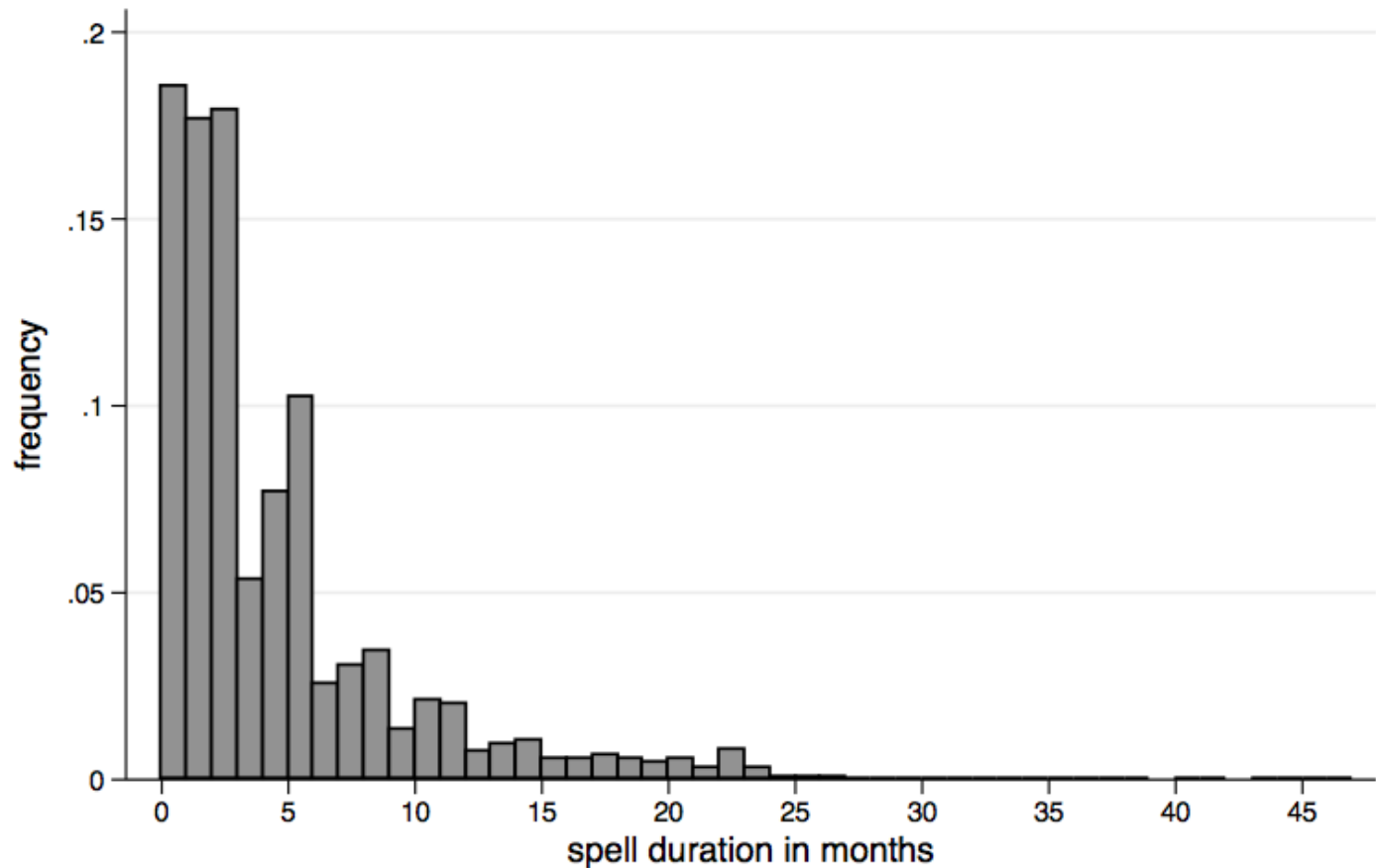


# Evidence Does Not Support Widespread Benefit Dependency (3)

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... and spell durations appear to be short...with a lot of spells of one to three months

Duration of GMI spells , 2006-2012



note: 17.3% of spells are censored

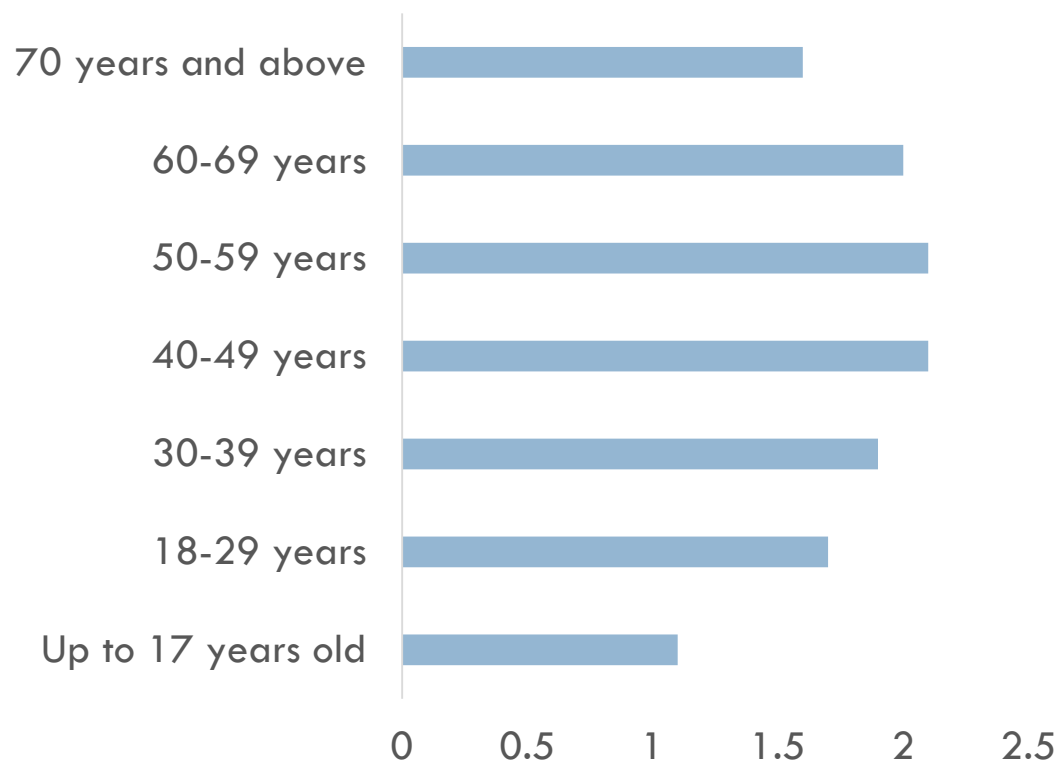
Source: World Bank staff calculations based on administrative data from Government of Latvia.

## Application 2: Indication of underuse of poor elderly of health social safety net (1)

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- Claims per poor patient lower for 70 year olds and older than for those in middle-age
- Likely explained by lack of access (transport, low knowledge of program/problems accessing benefit), rationing (evidence of less GP assistance than other groups)

Mean number of health services used by needy (poor) patients, 2012, by age group

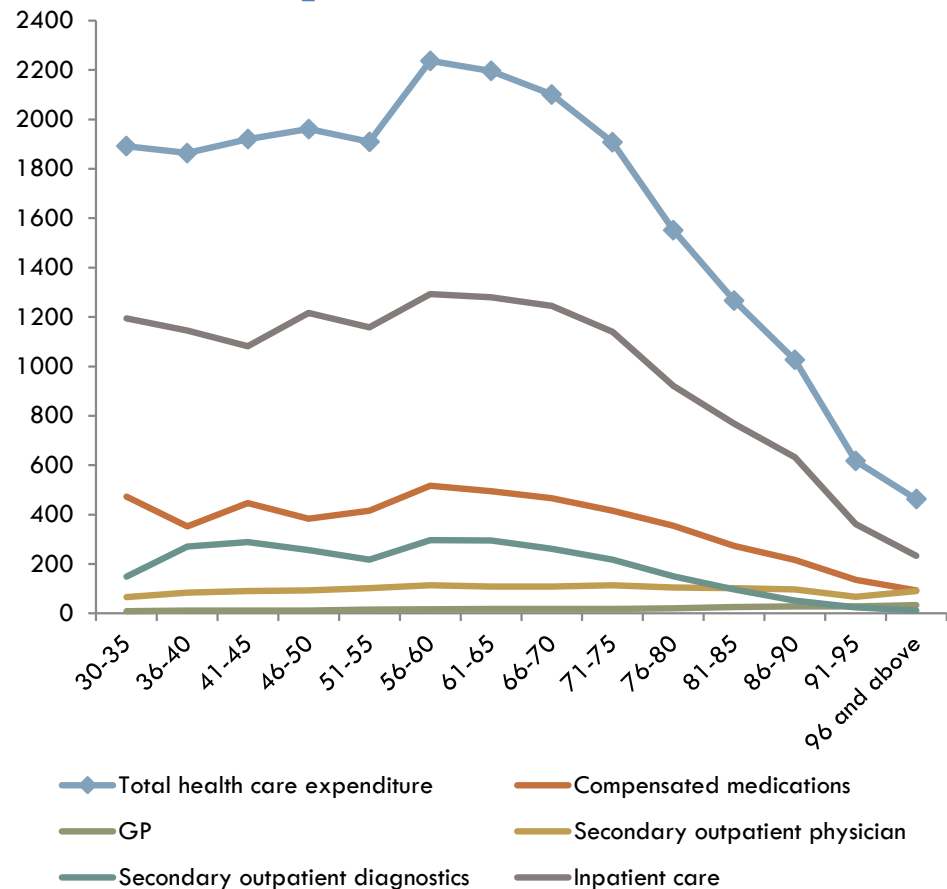


# Indication of underuse of poor elderly of health social safety net (2)

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- Evidence overall of much less spending on older patients by the state
- If patients are filtered to only include those in last two years of life similar shape remains
- Very little savings in the hands of many of these older people so unlikely that public provision is substituted by private services for most

Public health spending by age group, expenses per patient in Latvian Lats

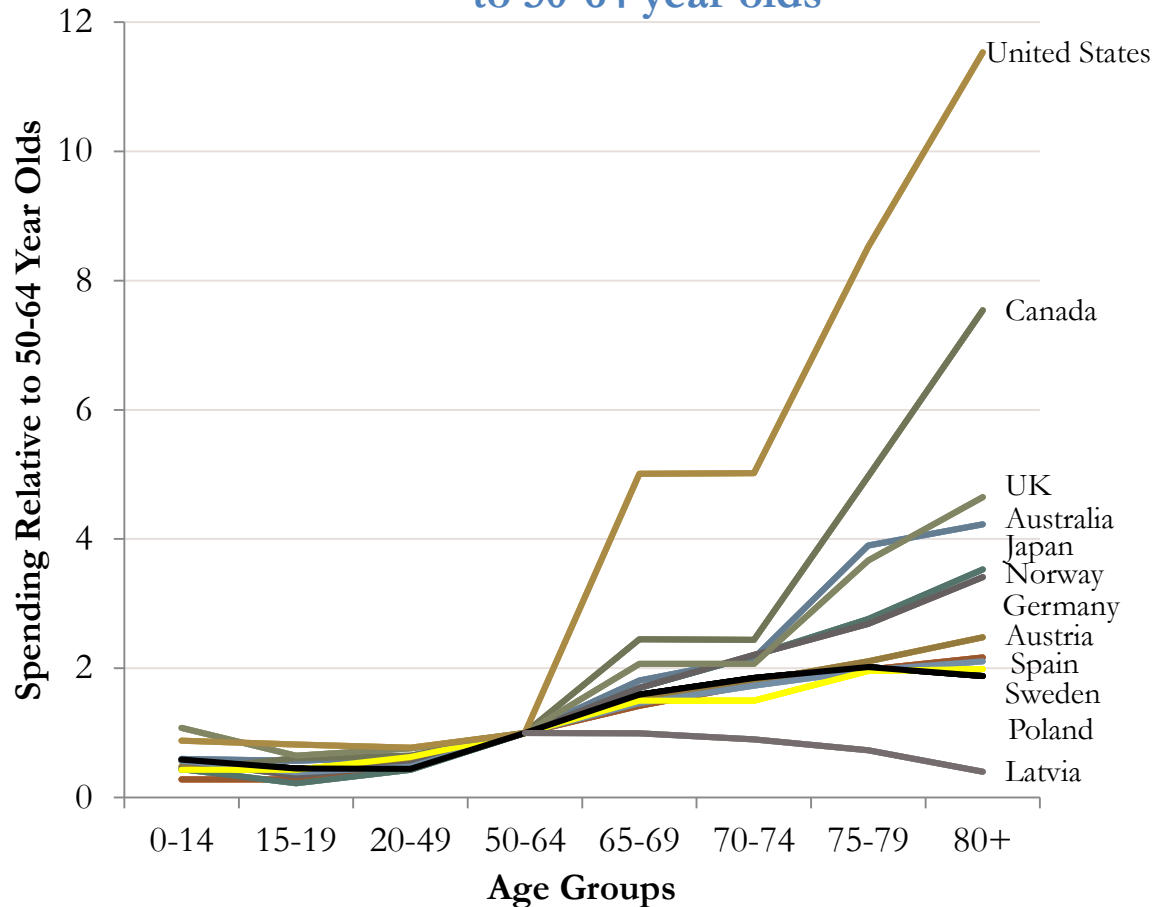


# Indication of underuse of poor elderly of health social safety net (3)

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- Some evidence of less intensive spending for older old in less rich countries
- Stresses the importance of measuring what is not spent and implications for health outcomes

Public health spending by age group, expressed relative to 50-64 year olds



Source: World Bank staff calculations Based on administrative data from Latvia's Health Insurance Service.

# Application 3: Directing employment program support

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- **Who are the people experiencing labor market difficulties?**
- **How are professional training and informal education programs for unemployed performing for these groups?**
- **A substantial variation in terms of various labor market outcomes (employment rates, wages) found both between types of programs and within each type.**
- **Overall, the best performing programs for men include:**
  - professional training in manual, as well as service and a sales jobs*
  - employer provided training in non-manual jobs*
  - informal education programs in project management and software*
  - informal education programs for professional drivers of transport and industrial vehicles*
- **For women, the best performing programs include:**
  - employer provided training in manual jobs*
  - professional training in manual jobs*
  - IT (basic skills)*
  - state language (categories 2 & 3) and English (intermediate level)*
  - professional training in manual, as well as service and a sales jobs*



# NO/UNSTABLE WORK: DETAILED GROUPINGS

Group size

## “single older unemployed/disabled”

- . Old/Middle-aged 45-61 y.o.
- . Single
- . 10+ yrs. experience
- . Low education
- . Many disabled/unemployed
- . Chronic illness

22%

## “single young males with low education”

- . Young 20-29 y.o.
- . Men
- . Never married
- . Very low education
- . Unemployed
- . No children
- . Rural

18%

## “older unemployed, fit for work”

- . Older 50+
- . Married
- . 10+ yrs. experience
- . Low education
- . Unemployed/Low earnings /Infrequent work

14%

## “stay-at-home mums with small child”

- . Younger women 25-39 y.o.
- . Married/union
- . Higher education
- . Child < 6 y.o.
- . Rural
- . Working partner

11%

## “poorly educated, rural male breadwinner”

- . 30-39 y.o. men
- . Married/union
- . Very Low education
- . 10+ yrs. experience
- . Child < 6 y.o.
- . Rural
- . Partner not working

11%

## “self-employed older men”

- . Older men 40-54 y.o.
- . Married
- . 10+ yrs. experience
- . Self-employed
- . No child in household
- . Informal

9%

## “disabled older women with working partner”

- . Older women 50+
- . Married
- . Lower education
- . 10+ yrs. experience
- . High disability (most in sample), inactive
- . Chronic illness
- . Working partner

6%

## “highly educated stay-at-home mums”

- . 30-39 y.o. women
- . Married
- . Higher education (most)
- . 10+ yrs. experience
- . Children
- . Urban
- . Working partner

6%

## “disabled older women, partner not working”

- . Older women 50+
- . Married
- . Lower education
- . 10+ yrs. experience
- . Unfit for work, inactive
- . Large share retired early
- . Chronic illness
- . Partner not working

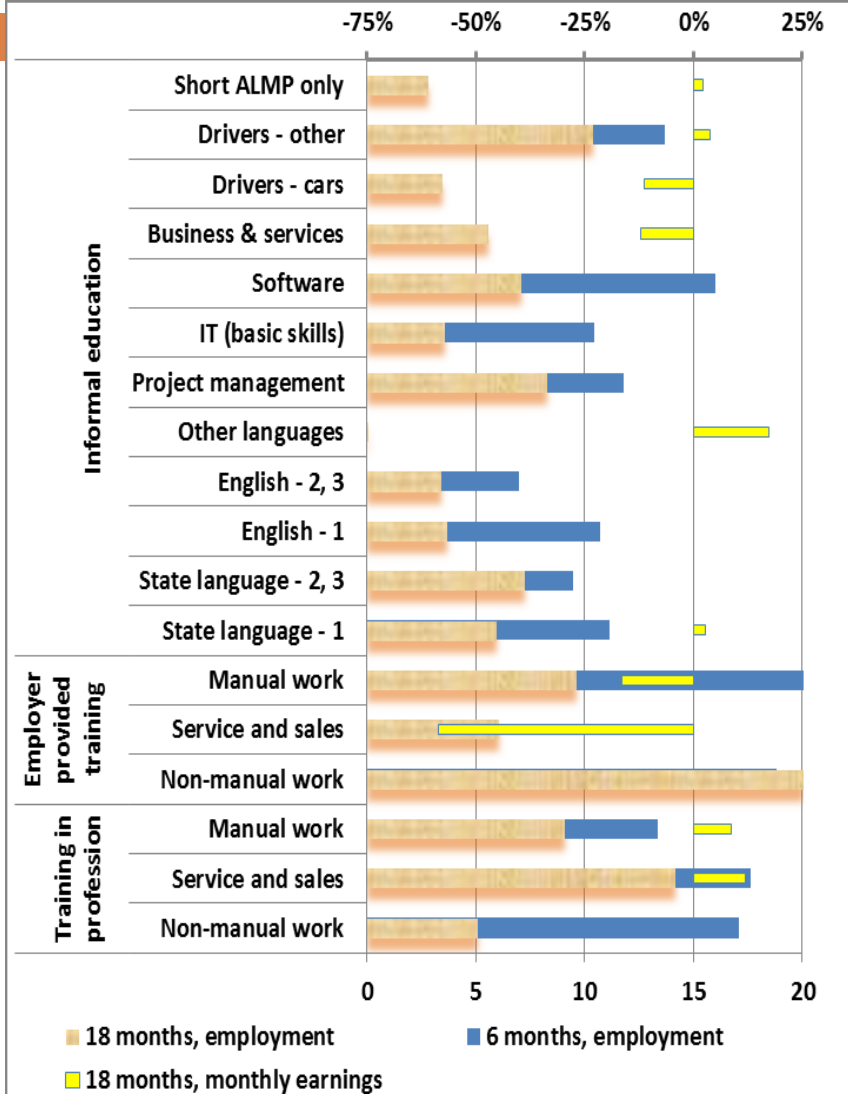
4%

## Estimated ALMP effects on:

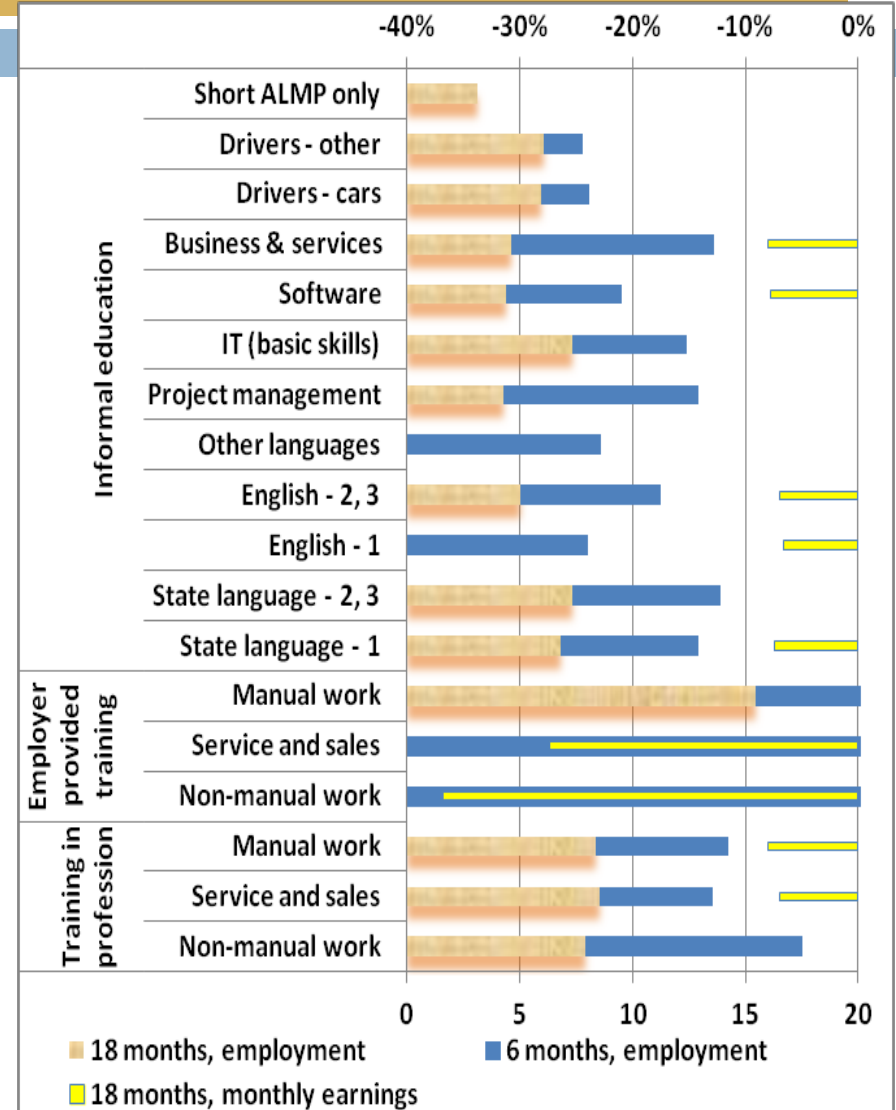
- **employment rates 6 and 18 months after training** (% points, **lower scale**)
- **average earnings in months worked over 18 months** (% , **upper scale**)

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### Males



### Females



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# Tax-benefit models

# Using tax-benefit models to analyze impact of reforms

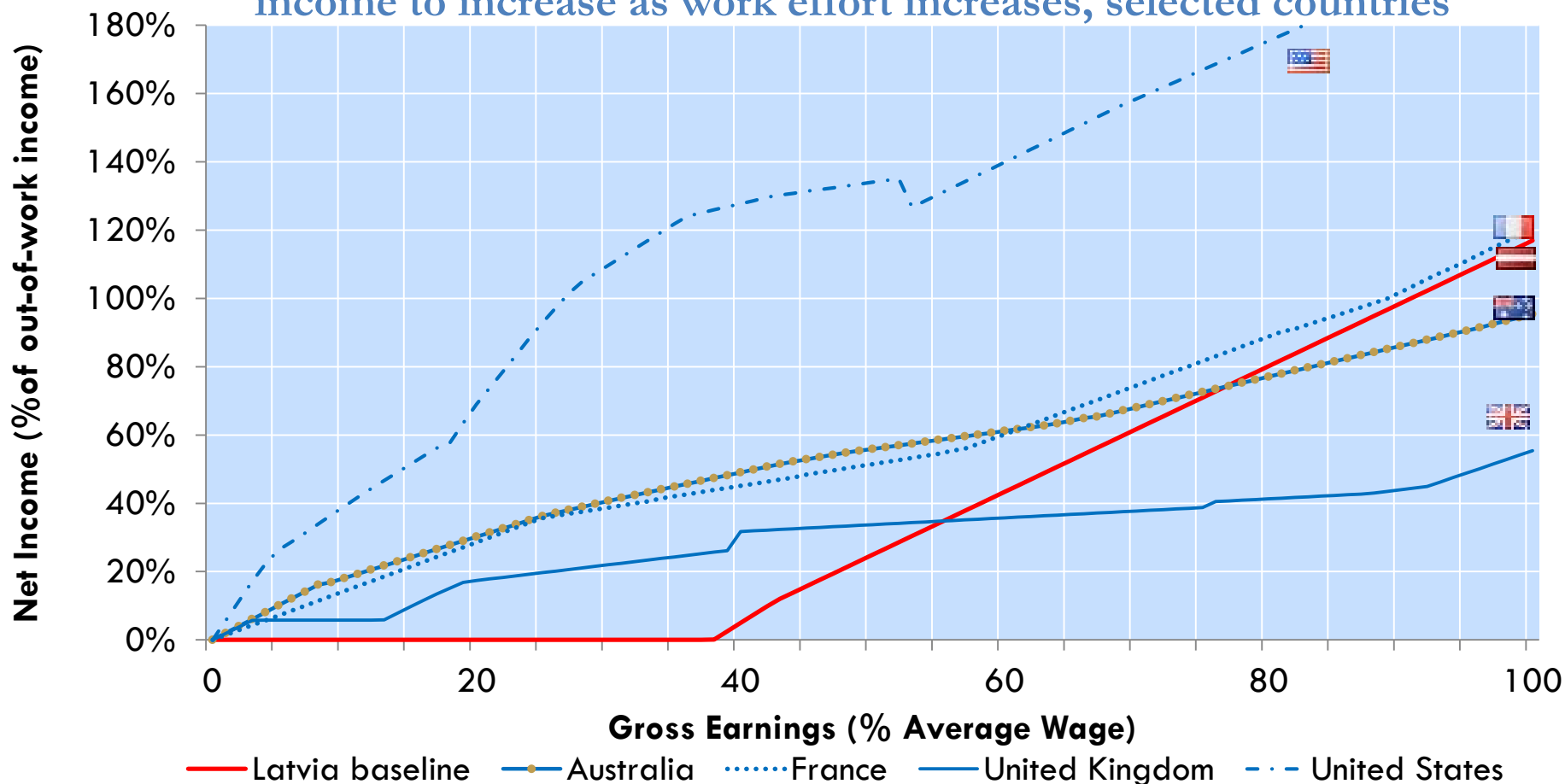
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- Allows measurement of the aggregate impact of tax-benefit policy changes on different family types
- **But!**
  - ▣ Distributional analysis would be needed to assess full impact and costs of any reforms
  - ▣ Informality and under-reporting could present a challenge in designing targeted make-work-pay policies
  - ▣ Does not include indirect taxes and so incomplete picture for family income (and more relevant for high-income countries' tax structure where personal income tax and benefits are much larger)

# Very different marginal effective tax rates for low earners across OECD countries

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In-work benefits for low income households allow after-benefit and tax income to increase as work effort increases, selected countries



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# Drawing from recent EU experience

# Importance of evidence base for policy making in good and bad times

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**Continuous review of spending and programs using a variety of data sources means countries have basis for deciding on trade-offs in bad times and investments in good times.**

**Combined focus on the following is important:**

- **Use large administrative data combined with socioeconomic and performance indicators for more power**
- **Sustainability**
  - Are spending programs affordable now and in the longer term?
- **Efficiency**
  - Can facilities/service delivery deliver more outputs for their current set of inputs? (Technical efficiency)
  - Can the overall efficiency of spending be increased with a better allocation of the budget across programs? (Allocative efficiency)
- **Equity**
  - How is spending distributed across different groups?
  - Is the safety net adequate to protect lower income groups in bad times?
- **Rethinking the role of the state/programs**

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Thank you!