Trust in the ABS and ABS Statistics – Five years on
by the Australian Bureau of Statistics

Towards merchandise trade statistics without asymmetries
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Measuring Job Quality
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In 2009, the national statistical organisation in Australia, the Australian Bureau of Statistics (ABS), as part of both the Taskforce for the Development of OECD Statistical Products and a member of the Electronic Working Group (EWG), helped develop a framework for measuring trust in statistical organisations and their products. This ‘model’ of trust was applied by the ABS in their 2010 Community Trust in ABS Statistics Survey (CTASS).

The CTASS was conducted again in 2015 to measure the current levels of trust in the ABS and its products, among both the general community and informed users of ABS statistics (academics, economists and journalists). Although a primary aim of the 2015 CTASS was to allow comparison with 2010 results, considerable changes in the way Australians use telecommunication services have been seen over time, necessitating revisions to the survey methodology.

More specifically, an increasing number of Australians are relying solely on mobile phones for their telecommunication needs and do not have a landline telephone. Currently, the proportion of the adult population who do not live in a household with a landline telephone is estimated at 27%, up from 12% in 2010 when the initial CTASS was conducted. The overwhelming proportion (96%) of these adults are contactable via mobile phone and comprise the so-called mobile-only population.

Consequently, as a method-logical response to this phenomenon, the CTASS methodology was revised from a landline frame in 2010 to a dual-frame random digit dialling (RDD) frame in 2015. Dual-frame surveys involve conducting interviews from two independent sampling frames, one comprised of randomly generated landline telephone numbers, the other of randomly generated mobile phone telephone numbers.

In order to ensure results from the two surveys could be compared, the ABS developed a weighting methodology which allowed the 2010 results to be re-cast to reflect a dual-frame methodology.

While this approach represents the best available means of comparison, the ABS acknowledges that it does not necessarily account for the large increase in mobile-only users and the likely different characteristics of dual-users in 2015 compared to 2010. Any comparison should therefore be viewed as indicative only.

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University’s Social Research Centre (SRC).

As mentioned earlier, the general community survey was conducted using a dual-frame (both landline and mobile numbers) sample frame. The blend of mobile phone interviews was 50%. The sample lists were randomly generated and the landline sample involved random sampling within 15 geographic strata. The co-operation rate for the general community survey (interviews completed, partials and refusals) was 61% while the response rate was 19%. Weighting was applied to the data to ensure results were representative of Australians aged 15 years or older.

The sample frame for the informed users’ survey was compiled by the ABS and consisted of 163 academics, 26 economists and 2 journalists. The academics and journalists had received contact from the ABS prior to being contacted for the survey and had consented to participating in the research. Consequently, the co-operation rate for the informed user survey was 99% and the response rate was 77%.

In 2010, 2,242 interviews were conducted with general community respondents and 137 with informed users. The surveys were administered by an independent consultant via CATI in May and June 2010. The general community survey used a landline sample frame drawn from a commercially available electronic database with quota-based household sampling methodology and post-weighting of the data. The 2010 general community reported response rate was 26% based on the number of respondents divided by the total in-scope contacts. The sample frame for the 2010 informed users’ survey included higher proportions of economists and journalists. The 2010 response rate for the informed users’ survey was 69%.

The survey instruments were largely unchanged in 2015 and care was taken to ensure consistency in interviewer briefings and instructions where available.

**General community trust comparison**

High levels of trust in the ABS as an institution and their products were recorded by the general community.

Survey respondents who indicated that they had heard of the ABS were asked how much trust they held in the ABS as an institution (Institutional Trust) and in ABS’ statistical products (Product Trust). Trust was measured on a 4-point scale by asking those who had heard of the ABS whether they: trust them a great deal; tend to trust them; tend to distrust them; distrust them a great deal.

Amongst the general community, the ABS, as an institution, engenders greater trust than its statistical products. Institutional trust in the ABS was high amongst general community respondents with 81% indicating that they either tend to trust or greatly trust the ABS (see Figure 2). Product trust also tended to be high with 76% of respondents indicating that they tend to or greatly trust ABS statistics.

**Informed users trust comparison**

All participating informed users of ABS statistics recorded trust in the ABS as an institution with the great majority reporting trust in ABS products.

Institutional trust in the ABS was especially high amongst informed users of ABS statistics with all respondents (100%) recording some degree of trust (see Figure 3).

Of the group, 73% indicated that they have a great deal of trust in the ABS as an institution and the remainder 27% indicated that they tend to trust the ABS.

Product trust was also high amongst informed users with 65% recording the highest level of trust in ABS statistics (trust them a great deal) and the majority of the remainder (34%) stating that they tend to trust them, giving a total of 99% trusting ABS products.

Amongst informed users of ABS statistics, product and institutional trust were statistically unchanged,
remaining at very high levels in both years.

**Trust linked to Socio-Economic Status**

In the general community sample, significant variations in levels of institutional and product trust were observed across Socio-Economic Status (SES) sub-groups with higher levels of trust in the ABS recorded among those from a higher SES background.

Sub-group analysis revealed that respondents from the general user community in the upper SES groups recorded higher levels of trust than those with a moderate and, more so, a low SES. This is best evidenced by the difference in the proportions reporting the highest levels of institutional trust with 41% of those with a high SES indicating that they trust the ABS a great deal and this proportion decreasing to 25% of those with a low SES (see Figure 4).

A similar trend was observed for product trust with 25% of those with a high SES indicating that they trust the ABS a great deal compared to 13% of those with a low SES (see Figure 5).

**Trust influenced by knowledge of the ABS**

General community respondents who recorded higher levels of trust in the ABS as an institution and their products also tended to be those who self-reported the greatest knowledge of ABS.

Members of the general community sample who were aware of the ABS were asked to indicate which of the following responses best explained their level of knowledge of the ABS as an institution: I know it well; I know it somewhat; I know a little bit about it; I have only heard the name.

In 2015, 82% of general community respondents reported awareness of the ABS as an institution although just 8% self-reported that they know it well. Upon investigation, a statistical relationship was discovered between the self-reported levels of knowledge of the general community and levels of institutional and product trust.

For institutional trust, those who reported that they know the ABS
well, recorded the highest levels of trust of any general community subgroups (90% of this group trust the ABS greatly or tend to trust them) (see Figure 6). Trust decreased with the level of knowledge of the ABS, the lowest levels of institutional trust being recorded amongst those who had only heard the name (58% trust greatly or tend to trust the ABS).

For product trust amongst general community respondents, those who reportedly know the ABS well, recorded higher levels of trust (85% trust greatly or tend to trust) compared to those who had only heard the name (58% trust greatly or tend to trust the ABS) (see Figure 7).

For further information on the methodology and a summary of key findings, please refer to the Trust in ABS and ABS Statistics report available at: www.abs.gov.au/ausstats/abs@.nsf/mf/1014.0

On International Women’s Day, 8 March, the OECD launched its fully revamped website on gender equality.

This new website brings together all OECD ongoing work on gender equality. It presents a wide range of indicators shedding light on gender inequalities in education, employment, entrepreneurship, health and development, showing how far we are from achieving gender equality and where action is most needed.

In total, around 80 indicators are now available for OECD member countries, as well as Brazil, China, India, Indonesia, and South Africa.

You can now also embed the new interactive charts directly into your websites while adapting the view to illustrate and compare, for example, the Gender Pay Gap in various countries across the OECD.

To facilitate access, this newly designed portal is now mobile and tablet friendly, and is a key resource when searching for all our publications and Working Papers on Gender Equality.
Making merchandise trade statistics more useful for analysis and policy use

High quality, consistent and harmonised international merchandise trade statistics are essential for empirical analyses of international trade and global value chains. However, currently, available official merchandise trade statistics do not fully meet these requirements. Differences with respect to the valuation of transactions, customs regimes, and methodologies create trade statistics asymmetries across countries; which are further exacerbated by differences in confidentiality policies, product classifications, and time of recording. Standards for merchandise trade statistics typically favour recoding import flows by country of origin and export flows by country of last known destination, which inherently result in trade asymmetries. Moreover, increasing complexities in global production arrangements (such as factory-less producers, merchanting, processors, transfer pricing), driven by global value chains, have made measurement more challenging and have augmented the scope for asymmetries. Hence, while in theory, notwithstanding valuation differences, the exports of country A to country B should be equal to the imports of country B from country A, in practice this is rarely the case, as illustrated in Table 1.

Given their persistence and relevance, reducing trade statistics asymmetries is not a new item on the agenda of national statistical offices and international organisations but growing demand for a coherent balanced view of global value chains as well as the OECD-WTO work on Trade in Value Added (TiVA) has contributed to re-emphasise its importance.

Table 1. Examples of large trade asymmetries (reported imports and mirror exports), by product (Chapter of Harmonised System), 2014, million USD

<table>
<thead>
<tr>
<th>Reporter country</th>
<th>Partner country</th>
<th>Product (HS chapter number)</th>
<th>Reported imports</th>
<th>Mirror exports</th>
<th>Imports +/- Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>Russia</td>
<td>Mineral fuels and oils (27)</td>
<td>21 650</td>
<td>57 294</td>
<td>-35 644</td>
</tr>
<tr>
<td>USA</td>
<td>China</td>
<td>Electrical machinery, equipment and parts (85)</td>
<td>127 093</td>
<td>92 550</td>
<td>34 543</td>
</tr>
<tr>
<td>China</td>
<td>Korea</td>
<td>Electrical machinery, equipment and parts (85)</td>
<td>76 674</td>
<td>51 182</td>
<td>25 492</td>
</tr>
<tr>
<td>China</td>
<td>Japan</td>
<td>Electrical machinery, equipment and parts (85)</td>
<td>40 572</td>
<td>25 751</td>
<td>14 820</td>
</tr>
<tr>
<td>USA</td>
<td>China</td>
<td>Nuclear reactors, machinery &amp; mechanical app. (84)</td>
<td>105 279</td>
<td>90 883</td>
<td>14 396</td>
</tr>
<tr>
<td>Germany</td>
<td>China</td>
<td>Electrical machinery, equipment and parts (85)</td>
<td>28 804</td>
<td>14 458</td>
<td>14 346</td>
</tr>
<tr>
<td>Germany</td>
<td>Norway</td>
<td>Mineral fuels and oils (27)</td>
<td>8 137</td>
<td>20 105</td>
<td>-11 968</td>
</tr>
<tr>
<td>France</td>
<td>China</td>
<td>Electrical machinery, equipment and parts (85)</td>
<td>14 397</td>
<td>5 551</td>
<td>8 846</td>
</tr>
<tr>
<td>France</td>
<td>Russia</td>
<td>Mineral fuels and oils (27)</td>
<td>11 641</td>
<td>4 132</td>
<td>7 509</td>
</tr>
<tr>
<td>Netherlands</td>
<td>China</td>
<td>Nuclear reactors, machinery &amp; mechanical app. (84)</td>
<td>15 695</td>
<td>22 019</td>
<td>-6 323</td>
</tr>
<tr>
<td>Spain</td>
<td>France</td>
<td>Vehicles and parts (87)</td>
<td>10 664</td>
<td>5 105</td>
<td>5 559</td>
</tr>
<tr>
<td>Spain</td>
<td>Russia</td>
<td>Mineral fuels and oils (27)</td>
<td>6 971</td>
<td>3 421</td>
<td>3 550</td>
</tr>
</tbody>
</table>

Source: UN Comtrade

TiVA currently already includes such a balanced view, achieved, in the absence of an official balanced view of trade, using mathematical balancing tools (RAS). As part of on-going efforts to improve quality, transparency, and also to facilitate greater collaboration in its production, the OECD has now developed a more modular approach to balance international merchandise trade statistics, building on the existing literature, and accounting for a much wider variety of trade asymmetries. The structured modular approach facilitates transparency in the balancing process, and capitalises on the bilateral trade asymmetry meetings facilitated by the OECD and international partners.

In adopting this transparent modular approach, the intention is to encourage collective ownership of the database, amongst countries and other international...
organisations, creating in the
process an international benchmark
for balanced trade data that can be
used for stand-alone analysis as well
as in the creation of TIVA. Such an
international benchmark data set
and transparent balancing process
is also essential for ensuring that
regional efforts to develop TIVA, such
as the Eurostat FIGARO project and
APEC-TIVA, can be easily integrated
within the global dataset.

This article provides an overview of the
main steps involved in constructing the
balanced merchandise trade dataset, and presents the results
achieved so far. The first version of
the database covers 2007-2011, at
the 6-digit HS product level, and
includes adjustments for CIF-FOB
margins, for re-exports by Hong
Kong, and for Swiss trade in non-
monetary gold (which together
reduce nearly 20% of cumulative
trade asymmetries). Updated
versions with additional modules,
incorporating longer historical time
series, are expected to be released
twice yearly over the coming years.

Towards balanced merchandise
trade statistics

The process towards balancing merchandise trade statistics is
organised around separate, well-
documented modules, involving
three basic steps (see also Figure
1). First, the data have to be properly
prepared. This involves not only the
data collection and organisation, but
also the adjustment of import flows
valued at CIF (Cost Insurance and
Freight) prices into their respective
FOB (Free on Board) values. This
adjustment ensures that exports and
imports are valued consistently. The
second step incorporates a variety of
adjustments made for specific large
problems that are known to drive
asymmetries. Each ‘problem’ area is
the subject of a separate module, and
the list of these modules is expected
to be augmented over time. Finally,
the adjusted data are balanced by
calculating a weighted average of
reporter country and mirror country
flows to create a so-called ‘symmetry
index’ used to generate weights. All
calculations and adjustments are
made at the HS 6-digit product level.

Data preparation

Module A: Data collection and
harmonisation

The current Version 1 of the database
is restricted to the period 2007-2011
using data reported on the
HS2007 classification, at the 6-digit
product level. Subsequent updates
will incorporate data according to
the HS2012 classification, and then
data according to HS2002 and earlier
versions. However, not all countries
produced data for the 2007-2011
period using HS2007. For example,
the Philippines report data for the
entire 2007-2011 period in HS2002,
whilst India, Indonesia, Malaysia,
Mexico, Tunisia, Chinese Taipei,
and Vietnam also report 2007 data
on HS2002 classification. As such,
the data for these countries, for the
relevant years, have been converted
into HS2007 using the official UNSD
conversion tables and a trade-
weighted method developed by the
OECD that allocates “1-to-many”
conversions (e.g. a single product
code in HS2002 is replaced by
multiple product codes in HS2007)
based on the relative size (trade
value) of the destination categories,
which results in fewer series
breaks compared to a simplistic
‘apparent main destination’ (‘1-to-
1’ conversion) approach.

This phase also ensures commonality
in geographical classification
across reporters and partners,
reflecting the official statistical
area of the reporters. A number of
countries officially report national
trade statistics and, indeed other
economic indicators for their country,
including geographical areas that
may be specified separately as
partners by other reporters. For
example, France includes Monaco
and overseas areas, whereas some
reporters identify these as three (or
more) individual partner countries.
To eliminate these possible
asymmetries all partner data are
selected and aggregated using the
official geographical definition of the
national reporter.

Finally, a number of countries do
not fully specify their merchandise
trade statistics by all individual
geographical areas. This may have
important consequences when
analysing trade asymmetries. A
separate geographical partner
category for unspecified trade,
for each 6-digit product, has
been created, called “Differences,
Unspecified or Confidential” (DUC).
For most countries, between
1-2% of international trade is not
geographically specified, although it can be significantly higher for some countries and years, and for individual products (notably petroleum and natural gas).

Module B: CIF-FOB adjustments

Differences in valuation between imports (generally at CIF) and exports (generally FOB) are a first and obvious cause for trade asymmetries. Very few countries report their import values on both a CIF and FOB basis, which means that to ensure a common valuation between exports and imports, the CIF-FOB margin has to be estimated for each reporting country, partner country and HS 6-digit product.

For the balanced merchandise trade dataset, CIF-FOB margins are estimated using an econometric gravity model that builds on earlier academic work to produce datasets of CIF/FOB margins by product and partner country. The model includes a variety of indicators that influence the transport and insurance costs of international merchandise trade: distance (non-linear), the contiguity of reporter and partner, infrastructure quality (proxied by GDP per capita) of both reporter and partner, the oil price, unit values, a time trend and product fixed effects (at the 4-digit HS level). But one of the main improvements compared to earlier studies is that the model is estimated using a much more extensive dataset of explicitly available CIF-FOB information. It is by far the largest dataset to date of CIF-FOB data both in terms of numbers of countries involved (Argentina, Australia, Bolivia, Brazil, Chile, Colombia, the Czech Republic, Ecuador, Iceland, Luxembourg, New Zealand, Paraguay, Peru, Uruguay and the USA) and time period covered (1995-2014).

The final dataset of CIF-FOB margins includes a mix of these officially reported data, and estimates derived from the model for all other imports. It is produced for all HS vintages. Overall, the global trade-weighted CIF-FOB margin is 6.2%, in line with earlier studies.

Data adjustments

The first version of the balanced merchandise trade statistics include adjustments for two countries that feature among the top 10 countries where trade asymmetries are most pronounced, namely Hong Kong (in particular caused by re-exports) and Switzerland (in particular for non-monetary gold). Upcoming editions will expand the number of these data adjustment modules.

Module 1: Re-exports via Hong Kong

Hong Kong is a major trading hub in the network of international merchandise trade flows. As such, re-exports account for virtually all of its total exports (96%), which means that trade asymmetries between Hong Kong and trading partners can be significant. This arises when recipients of Hong Kong re-exports record the country of origin of the exports (the country that first exported the goods to Hong Kong) rather than the country of consignment (Hong Kong itself) and the country that exported the goods to Hong Kong records Hong Kong as its main trading partner, and not the country of final destination.

Using the data available from the Hong Kong Census Office on the country of origin of re-exports (available at the 6-digit HS level), the geographical attribution of Hong Kong with trading partners is adjusted to a ‘consignment’ basis. This reduces asymmetries while maintaining a coherent overview of global trade flows and the role of trading hubs. Table 2 provides an example of this approach. The table shows that China exports nearly 5 billion USD of product 851762 (Machines for the reception, conversion & transmission/regeneration of voice, images and other data) to the US, with Hong Kong exporting a further USD 2.1 billion, virtually all of which (USD 1.9 billion) are re-exports from China. In contrast, and consistent with the country of origin principle, the US records imports of product 851762, virtually all, from China (more than 9 billion), with negligible amounts from Hong Kong.

The second column in Table 2 reattributes US imports passing through Hong Kong as imports from Hong Kong, with a corresponding reduction of imports attributed

| Table 2. Example of trade asymmetries between China and the US where re-exports from Hong Kong are important, before and after re-export adjustment (thousand USD, 2011) |
|-----------------------------------------------|-----------------|-----------------|
| (1) Exports of China to the US | 4 975 623 | 4 975 623 |
| (2) Exports of Hong Kong to the US | 2 097 909 | 2 097 909 |
| (3) of which re-exports originating from China | 1 920 029 | 1 920 029 |
| (4) Imports of the US from China | 9 482 884 | 7 562 855 |
| (5) Imports of the US from HK | 138 023 | 2 058 052 |
| China-US asymmetry (abs) | 4 507 261 | 2 587 232 |
| Hong Kong-US asymmetry (abs) | 1 959 886 | 39 857 |

*HS 851762: Machines for the reception, conversion & transmission/regeneration of voice, images and other data*
to China. Note that this does not change the reported export statistics by China or Hong Kong, nor the total value of US imports. By changing the geographical attribution of trade in this way, the trade asymmetries between China and the US are significantly reduced (by almost half), and are almost zero between Hong Kong and the US.

Applying this method reduces asymmetries between Hong Kong exports and partner country imports by on average 60%, and for many partner countries they almost entirely disappear. Similarly, trade asymmetries between country pairs (e.g. US and China trade via Hong Kong) that trade significantly via Hong Kong are also notably reduced (between 5-10% on average).

Module 2: Swiss non-monetary gold

New data for Swiss non-monetary gold are available from 2012 onwards in Comtrade (the main international data source for merchandise trade statistics), providing the basis to resolve many trade asymmetries between Switzerland and its main trading partners. The size of adjustments is substantial: USD 90 billion per year for both exports and imports, reflecting around a quarter of total merchandise trade of Switzerland. Although data for earlier periods has not been submitted to Comtrade by the Swiss authorities, data are available and this additional information has been used to reduce asymmetries in Comtrade data for earlier years as well.

The incorporation of this new data has resulted in significant asymmetry reductions for the majority of partner relationships. But not all asymmetries were solved, reflecting in large part differences in the product classification codes used, for the UK and Germany in particular. For example, in 2013, the UK reported exports of USD 60 billion of product 710813 (non-monetary gold in semi-manufactured form) to Switzerland, while Switzerland reported imports of USD 62 billion USD of product 710812 (non-monetary gold in unwrought forms) from the UK. Similarly, exports by Germany of HS code 710812 were recorded as zero for the period 2005 to 2008, at the same time as unusually high exports of HS code 710813, again pointing to classification issues. Reclassification adjustments have hence been incorporated for both the UK and Germany (Figure 2).

Reconciling mirror flows

Module C: trade balancing

In the production of the balanced international merchandise trade dataset, the reconciliation of mirror flows is the final step (module C). Building on earlier studies, the central component of the approach is the generation of what is referred to as a ‘Symmetry Index’, which is subsequently used to calculate a weighted average of the two reported values that are available for each bilateral trade flow at the 6-digit level.

To generate this Symmetry Index, the first step is to calculate for each reporter, year, trade flow (export or import), and 6-digit product, the share of bilateral trade for which the absolute difference with the mirror trade data is considered small (following earlier studies in this area this was defined by convention as less than or equal to 10% of the sum of these two value flows). To create the final balanced trade values by country, partner, product and year, calculated symmetry indices are used as weights, thereby giving a higher weight to the country with a higher symmetry index. This balancing procedure results in internationally coherent trade values for each trade flow at the HS 6-digit product code.

Next steps

While the first version of the dataset has been completed, more work is necessary to further reduce asymmetries, improve the overall quality of merchandise trade statistics, and to create the international benchmark dataset of merchandise trade statistics that can be used for stand-alone analysis as well as in the creation of TiVA and international input-output tables more generally. Very concretely, the next edition of the Balanced Merchandise Trade dataset will contain a longer time series (including data in HS 2012 classification, i.e. up to 2014) and adjustments for re-exports from Singapore. Work with international partner organisations is also under way; for example WTO is exploring...
to what extent additional information on certain Export Processing Zones can help reduce asymmetries.

**OECD activities to engage with countries to tackle trade asymmetries**

One of the key inputs for creating a balanced merchandise trade dataset is the knowledge and participation of the national statistical offices that produce the merchandise trade statistics in the first place. OECD has started to organise bilateral trade asymmetry meetings alongside its annual meeting of the Working Party on International Trade in Goods and Services Statistics (WPTGSS), where national statisticians can meet bilaterally to identify the causes of the main asymmetries. These meetings are facilitated by country notes prepared by the OECD Secretariat that describe the main trade asymmetries that are relevant for each country, by product and trading partner (notes are available for all OECD countries as well as key partner and accession countries).

Participants in these meetings are encouraged to share the conclusions of their meeting regarding the main reasons for asymmetries, as well as any recommendations on how to subsequently make adjustments.

**Fostering collective ownership**

It should be stressed that the balanced view of trade provided through this process is not designed to replace official national estimates. Rather it should be seen as an analytical process that responds to increasing demand for coherent international trade statistics. With this in mind, the intention is also to generate an international benchmark for balanced merchandise trade statistics, which can be used in any related application. A number of attempts have been hitherto made to arrive at a balanced set of merchandise trade, but the different methodologies embodied in these efforts, and so, different results can cause confusion for users.

Collectively working at the official level with national and international statistics agencies to create a benchmark can remove, at least, this source of confusion.

As noted above, the intention is to continue to develop and improve the results through the incorporation of additional modules that will be developed in the coming periods. But there is also a need to go beyond the ambition embodied in this effort. Work is already underway to develop similar tools for Trade in Services, emphasising transparency with improvements in core data. In addition, further work has started to develop tools that create internationally coherent balances of trade in goods and services that align with National Accounts and Balance of Payments (BPM6) concepts.

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**International Conference on Establishment Surveys**

**20-23 June 2016**

The **Fifth International Conference on Establishment Surveys (ICES-V)** will take place on June 20-23 2016, in Geneva, Switzerland. ICES-V features invited and contributed papers and demonstrations from around the globe that highlight new, improved and upcoming establishment survey methodologies and technologies using census, administrative, and sample survey data. Participants come from academia, national statistical institutes, international statistical organisations, private businesses, statistical associations, and other sectors with an interest in best practices for conceptualisation, design, data collection, analysis, and dissemination of business, economic, and other organisational statistics.

The conference’s first day will provide six full-day short courses. The remaining three days include full-day activities comprising of a mix of keynote sessions, introductory overview lectures, parallel invited and contributed sessions, a poster session, and software demonstrations, which will present the latest developments on methods and practices for statistics regarding businesses, farms, institutions, and other organisational units.

Conference registration is now open. The Early Bird registration fees will apply through March 2016. To find more information on registration and accommodation and to register, please visit: www.portal-stat.admin.ch/ices5/registration.
At a time where recovery from the global economic crisis remains fragile in many countries, job creation remains a primary concern for policy makers. Despite improvements over the past years, large job gaps remain, notably in the hardest hit countries, with deep scars from the prolonged crisis both for people with a job and for those without. The unemployed have borne considerable personal, economic and social costs, particularly those who have endured long spells of joblessness and young people who have failed to find their first job upon entry into the labour market. Among those who have kept their job or managed to return to work quickly, an increasing number of workers have also experienced economic hardship as a result of stagnant or even declining earnings and often greater work pressure and growing labour market insecurity.

The crisis has also deepened labour market inequalities. Job creation has disproportionately taken the form of fixed-term or temporary jobs in many OECD economies, thereby potentially reinforcing pre-crisis trends towards atypical and often precarious work, and further increasing the number of persons insufficiently covered by social protection and labour regulations. These dual impacts on the unemployed and the employed emphasise the need to foster the creation of not just more jobs, but also better jobs. Better understanding these dynamics, not only for workers' well-being, but also as important determinants of labour force participation, productivity and aggregate economic performance is now a priority at the highest political levels as indicated in the G20 Leaders’ commitment at Ankara last November not just to create more jobs, but better quality jobs.

What makes a good job?

In response to these growing demands, working in close collaboration with the ILO and UNECE, the OECD has recently

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### Box 1: The OECD Job Quality Framework

Job quality encompasses multiple aspects of employment that contribute to the well-being of workers. In consultation with the ILO and UNECE, the OECD has proposed a framework which can be operationalised for policy interventions through the development of indicators that can be used to compare job quality across countries, socio-demographic groups and over time. The measures look at the individual experience of people at work. Rather than concentrating on the drivers of job quality such as compliance with standards and regulations, the OECD framework focuses on the outcomes for workers in three broad areas that matter for well-being:

- **Earnings quality** refers to the extent to which the earnings received by workers in their jobs contribute to their well-being. While the level of earnings provides a key benchmark for assessing their contribution to material living standards, the way earnings are distributed across the workforce also matters for well-being. Therefore, the OECD measures earnings quality by a synthetic index that accounts for both the level of earnings and their distribution across the workforce.

- **Labour market security** captures those aspects of economic security that are related to the probability of job loss and its economic cost for workers. This is measured by the risk of unemployment which encompasses both the risk of becoming unemployed and the expected duration of unemployment, and by the degree of public unemployment insurance, which takes into account both the coverage of the benefits and their generosity.

- **Quality of the working environment** captures non-economic aspects of job quality and includes factors that relate to the nature and content of work performed, working-time arrangements and workplace relationships. Jobs that are characterised by a high level of job demands such as time pressure or physical health risk factors, combined with insufficient job resources to accomplish the required job duties, such as work autonomy and social support at work, constitute a major health risk factor for workers. Therefore, the quality of the working environment is measured by the incidence of job strain, which is a combination of high job demands and limited job resources.

This Framework has been endorsed by G20 Employment and Labour Ministers in 2015.

developed an operational framework for measuring and assessing job quality. Following the influential report by the Stiglitz-Sen-Fitoussi Commission, and in line with the OECD Better Life Initiative, the OECD job quality framework focuses on individuals’ outcomes, their distribution across workers and on objective features of job quality. The framework identifies three key complementary dimensions of job quality that are both important for worker well-being and amenable to policy interventions (Box 1). Considered altogether they provide a comprehensive assessment of job quality.

**Job quality across OECD countries**

Indicators of job quality along each of the three dimensions outlined in Box 1 have recently been released for all OECD countries in a new OECD database on job quality [http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ](http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ). The data show that job quality outcomes vary substantially across OECD countries (see Figures 1-3):

- Australia, Austria, Denmark, Finland, Germany, Luxembourg, Norway, and Switzerland are among the best performers. These countries do relatively well on at least two of the three dimensions of job quality, without any outcomes in the bottom-10 of the ranking across OECD countries.
- Belgium, Canada, the Czech Republic, France, Ireland, Israel, Japan, Korea, Mexico, the Netherlands, New Zealand, Slovenia, Sweden, the United Kingdom, and the United States display average performance. Over the three dimensions of job quality, most of these countries display no more than one outcome in the top-10 or the bottom-10 ranking of OECD countries.

**Figure 1. Earnings quality**

PPP-adjusted gross hourly earnings in USD, 2013 or the latest year available

Note: data refer to 2012 for France, Italy, Poland, Spain and Switzerland; and 2010 for Estonia, Luxembourg, Netherlands, Slovenia and Turkey. Generalised means approach is used as an aggregation tool to compute earnings quality measures, assuming a high inequality aversion.


**Figure 2. Labour market insecurity**

Risk of becoming unemployed and its expected cost as a share of previous earnings, 2013

Note: The data for Chile refer to 2011 instead of 2013.

• Estonia, Greece, Hungary, Italy, Poland, Portugal, the Slovak Republic, Spain and Turkey do relatively badly in two or all of the three dimensions of job quality. In addition, none of these countries performs very well in any dimension.

How do workers compare?

Looking at job quality outcomes across socio-economic groups provides further important insights into labour market inequalities, in terms of both quantity and quality.

• The worst off are youth and low-skilled workers. Not only do they have the poorest performance in terms of employment and unemployment rates but they also have the worst outcomes with respect to job quality; lower earnings quality, considerably higher labour market insecurity and higher job strain (especially for the low-skilled).

• By contrast, high-skilled workers perform well on all aspects. Returns to skills not only show up in the form of higher employment but also of better jobs in terms of higher earnings quality, lower job insecurity and lower job strain.

• For women, the picture is mixed: their employment rates are still substantially lower than those for men, and women suffer from a large gap in earnings quality. However, women do not differ much from men with respect to labour market security and are less likely than men to experience job strain (Figure 4).

How did job quality evolve across countries during and since the global financial crisis?

The global financial crisis has taken its toll on the labour markets of most OECD countries, with often dramatic increases in unemployment and its duration. The crisis has also affected those who remained in employment, changing remarkably the quality of existing jobs. However, quantifying

Figure 3. Job strain
Incidence of job strain, 2015

Note: The data on Turkey are based on results of the 2005 European Working Conditions Surveys (EWCS).

Figure 4. Job quality outcomes by socio-demographic group
Cross-country averages

Panel A. Earnings quality
PPP-adjusted gross hourly earnings in USD, 2013

Panel B. Labour market insecurity
Risk of becoming unemployed and its expected cost as a share of previous earnings, 2013

Panel C. Job strain
Incidence of job strain, 2015

Note: In Panel A, earnings quality is based on national-level average inequality.
the impact on job quality over time is complicated by the fact that the crisis disproportionately destroyed low-paid jobs with worse working conditions, leading to an apparent improvement in the quality of the pool of remaining jobs. Therefore, temporal comparisons of job quality, particularly in the wake of the significant changes created by the crisis, need to be done with all three dimensions in mind and in conjunction with indicators of job quantity.

For example, although Greece experienced a smaller drop in earnings quality than the United-Kingdom over the period, Greece’s relative position, at least in part, is likely to be influenced by the sharp rise in unemployment, and significant falls in labour market security. Whereas for the United-Kingdom, where employment and levels of labour market security have returned to pre-crisis levels, the fall in earnings quality may also reflect compositional effects that saw an increase in the relative share of low-skilled low-wage jobs over the period. Germany, on the other hand, experienced not only an increase in employment rates. But also an improvement in all aspects of job quality. In other OECD countries, the effects of the crisis were mixed. In Portugal, for example, earnings quality stagnated and, like in Greece, labour market security (and employment) fell considerably. But unlike in Greece, the quality of the working environment improved significantly. Conversely, in Sweden earnings quality improved but labour market security decreased and the quality of the working environment worsened (albeit from a relatively high level). Further information and insights into the OECD Job Quality

**Figure 5. Changes in earnings quality**

Percentage change, 2007-2013

Note. The data refer to changes between 2006 and 2012 for Italy and Switzerland; 2006 and 2013 for Chile; 2008 and 2013 for Denmark; 2007 and 2012 for France, Poland, Spain and Sweden; 2006 and 2010 for Estonia and the Netherlands; and 2008 and 2011 for Israel. Earnings quality and average earnings in real USD.


**Figure 6. Changes in labour market security**

Percentage change, 2007-2013

In addition to the OECD Job Quality database, an inventory of survey questions on the quality of the working environment has been conducted by the OECD. This inventory maps existing surveys that provide information on the characteristics of people’s jobs. It reviews international surveys conducted since the early 1990s that are based on individuals’ self-reported assessment of their current jobs, and covers around 160 countries over 25 years. It also provides users with detailed documentation on the questions used in the various surveys for measuring different aspects of work. The inventory can be found at: http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ_I and the full Job Quality database: http://stats.oecd.org/Index.aspx?DataSetCode=JOBQ.

References


Contacts

The project is a joint undertaking between the OECD Directorate for Employment, Labour and Social Affairs and the OECD Statistics Directorate. For more information, please contact JobQuality@oecd.org.

In summer 2015, the ECB published substantially enhanced monetary and financial statistics based on the 2008 System of National Accounts (SNA) and on the European System of Accounts (ESA) 2010. The enhancements were also triggered by additional user demands by policy-makers in the context of changes in the European financial landscape stemming from market developments.

In particular, the enhancements relate to the following:

- More detailed breakdowns by counterpart sector and financial instrument are now available for banks’ balance sheet items;
- Enhanced Bank interest rate statistics now allow for the derivation of volumes and rates of true new lending, clearly distinguishing them from renegotiations of already existing lending;
- New features have been added to statistics on investment funds and financial vehicle corporations engaged in securitisation transactions; and
- Several institutional sectors have now been included for the first time in the statistics on securities issues.

More information on the above enhancements can be found in the following article in the ECB Economic Bulletin December 2016: www.ecb.europa.eu/pub/pdf/other/eb201508_article02.en.pdf
Ghent, 19-21 September 2016

INFORMING SCIENCE AND INNOVATION POLICIES: TOWARDS THE NEXT GENERATION OF DATA AND INDICATORS

Every 10 years the OECD Blue Sky Forum engages the policy community, data users and providers into an open dialogue to review and develop its long-term agenda on science, technology and innovation indicators. This event is known as the “OECD Blue Sky Forum”.

Blue Sky 2016 will showcase examples of data and indicator development with the potential for international adoption, as well as examples of ground-breaking application of existing or new sources, addressing questions and providing evidence on the state of science and innovation systems and the role of Science, Technology and Innovation policies worldwide.

Selected contributions range from academic papers to concept papers outlining possible strategies for Science, Technology and Innovation data collection, measurement and quality improvements, user needs or initiatives that can support the infrastructure for the analysis of science and innovation phenomena.

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9000 Gent, Belgium
Got a question on international education? Ask the Education GPS

Jean Yip, Knowledge Management and Integration (GPS), Policy Advice and Implementation, OECD Directorate for Education and Skills

Where do you look for the most up-to-date and reliable data on international education? Until recently the answer would have required a tortuous and lengthy process of searching libraries and databases, and then screening through a myriad of projects and references. But since mid-2014 all of the most recent, policy-relevant education data and analyses produced by the OECD has been available in a single accessible platform that performs as efficiently and in a similar manner to your conventional GPS system.

It is this accessibility that is at the centre of the OECD’s Education GPS website, a cutting-edge online navigation system that integrates the OECD’s most timely and reliable international education data, analyses and policy advice from across publications and delivers them to you in a user-friendly, customisable format so everything is tailored to your needs. The search options are intuitively organised and the results are targeted, straightforward and presentation-ready. Whether you are looking for direct access to databases or wish to create your own graphs and charts for embedding elsewhere. You decide the type of data you need by topic or by country, the level of detail you are interested in (from introductory data summaries to original tables) and which country comparisons you may need (if any). Then, at the click of a button you can save your customised results in a PDF format. Here are some of the key features of the site:

**Analyze by country...**
- Find and use data by country.
- Get a glimpse of main findings on each country’s profile.
- Obtain statistics and compare countries across a variety of indicators.
- In a snapshot, see where countries fare well and where they could improve.
- Link to contextual metadata, websites, and publications.

**Explore data...**
- Search for indicators on education and skills by topic.
- Refine your selection (e.g. by country, age or educational level).
- Access data on all countries (OECD and non-OECD) for which data are available.
- Create your customised maps, graphs and charts.
- Save your images and search results (PDF format) or embed them in your presentations and documents and publications.

**Review education policies...**
- Explore a visual network of key policy topics on education and skills.
- Click on topics to see connections between various policy areas.
- Read an introduction highlighting major policy issues for each topic.
- Access “key findings” and related “policy options” that reveal the heart of the analytical work on a given topic.
- Narrow your selection by educational level.
- Document the sources of your findings and sort publications by year and relevance.
- Link to publications and related project websites.

**Explore the diagrams of countries’ education systems...**
- Learn about the institutional structures of various education systems and their major features, such as the number of years of compulsory education, starting age at each educational level, typical student trajectories, and awarded degrees and qualifications, all in a simple self-explanatory one-page diagram.
√ Compare countries’ education systems. Follow the diagrams’ colour coding to learn how different programmes map onto the latest International Standard Classification of Education (ISCED), a global reference for compiling statistics on education internationally.

√ Add context to your country reports by saving images of the diagrams and using them in your professional presentations and documents. All diagrams are available both in English and in the language of the country in question.

√ Find out about new major reports on the Education GPS homepage, through a summary of the key findings as well as supporting information, such as related videos and links.

√ Easily identify “new” or “updated” content by browsing the homepage and dropdown menus where such sections and topics are clearly flagged.

√ Access not only the most recent data from the latest publications, but also the corresponding policy content, which is continuously revised and updated to reflect new findings, analyses, and advice.

The Education GPS platform is continuously innovating with a number of new features recently added to provide wider and up-to-date coverage of an ever increasing body of research and to enhance users’ experience. The wide range of education topics available on the GPS platform reflects its broad audience, from the general public to highly specialised groups, such as policy makers, researchers, teachers, professional organisations, and journalists, as well as their various interests. For example, how much does Denmark spend on each student per year at different education levels? How does that compare to spending in Turkey? At what level of government are various decisions on education made in Finland? What are the annual salaries of teachers in France or the United States? How well are young students doing in basic school subjects, such as reading, mathematics, and science in various countries? Do women have similar chances of being employed in a given country as their similarly-educated male counterparts? Do students have the relevant skills for being successful in the digital world? Is there any collective wisdom on policies or best practices on how countries can achieve more equitable education systems? Answers to these and many other critical policy questions can easily be found on the Education GPS site: www.gpseducation.oecd.org.

Stay abreast of the latest OECD education reports and publications thanks to the site’s new developments...

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Recent publications

Revenue Statistics in Latin America and the Caribbean 2016

Despite a continuing slowdown in economic growth, tax revenues in Latin American and Caribbean (LAC) countries rose slightly in 2014, as a proportion of national incomes, according to new data from the annual Revenue Statistics in Latin America and the Caribbean publication. The average tax-to-GDP ratio for LAC countries rose from 21.5% in 2013 to 21.7% in 2014, compared with 21.4% in 2012 and 20.8% in 2011.

The report, produced jointly by the Inter-American Centre of Tax Administrations (CIAT), the Economic Commission for Latin America and the Caribbean (ECLAC), the Inter-American Development Bank (IDB), the Organisation for Economic Cooperation and Development (OECD) and the OECD’s Development Centre includes 22 LAC countries.


OECD Tourism Trends and Policies 2016

The tourism industry in OECD countries continues to grow strongly despite economic weakness in advanced economies, and outperformed tourism globally in 2014. However, active, innovative and integrated policies are needed to ensure that tourism remains a competitive and sustainable sector, says OECD.

According to OECD Tourism Trends and Policies 2016, OECD countries remain the most popular travel destinations in the world, accounting for more than 60% of global travel receipts. Their market share rebounded in 2014, as tourist arrivals to OECD countries grew by 6.4%, compared to 4.2% globally. However, emerging tourism destinations are expected to grow more dynamically in the longer term. The rapidly evolving geopolitical environment will also continue to affect travel flows.


Measuring and Assessing Well-being in Israel

Measuring and Assessing Well-being in Israel provides a description of the level, distribution, and sustainability of well-being in Israel. Drawing on the methodology developed in the bi-annual report on well-being in OECD countries – How’s Life? – this report extends the methodology to provide in an-depth examination of well-being in a single OECD country. The report examines well-being in Israel in the context of the Israeli government’s recent initiative to develop indicators of well-being, resilience, and sustainability, and provides a complementary account of well-being in Israel with a stronger focus on international comparisons.

### Agenda

**Forthcoming meetings**

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<td>Working Party on Trade in Goods and Services (WPTGS), Statistics Directorate. OECD, Paris, France</td>
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<td>4-6 April 2016</td>
<td>17th Working Party on Indicators of Educational Systems (INES), Directorate for Education and Skills. OECD, Paris, France</td>
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<tr>
<td>20 April 2016</td>
<td>30th Working Party on Territorial Indicators, Public Governance and Territorial Development Directorate. OECD, Paris, France</td>
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<td>25-29 April 2016</td>
<td>Committee on Statistics and Statistical Policy (CSSP), Statistics Directorate. OECD, Paris, France</td>
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<td>19-20 May 2016</td>
<td>Health Care Quality Indicators (HCQI) Expert Group, Directorate for Employment, Labour and Social Affairs. OECD, Paris, France</td>
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<td>4-6 July 2016</td>
<td>UN Praja Group on Governance Statistics, Statistics Directorate. OECD, Paris, France</td>
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<td>3-4 November 2016</td>
<td>Health Care Quality Indicators (HCQI) Expert Group, Directorate for Employment, Labour and Social Affairs. OECD, Paris, France</td>
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<td>7 November 2016</td>
<td>Working Party on Territorial Indicators, Public Governance and Territorial Development Directorate. OECD, Paris, France</td>
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<td>Leading on Well-being Conference, Statistics Directorate. OECD, Paris, France</td>
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**Other meetings**

- **11-12 April 2016**  World Strategic Forum. Miami, USA. [forum-americas.org/miami](http://forum-americas.org/miami)
- **20-21 April 2016**  Global Green Growth Forum 2016. Copenhagen, Denmark. [3gf.dk](http://3gf.dk)

Unless otherwise indicated attendance at OECD meetings and working parties is by invitation only.