

House Standing Committee on Regional Australia: Inquiry into the use of 'fly-in, fly-out' (FIFO) workforce practices in regional Australia

SECOND SUBMISSION BY THE AUSTRALIAN BUREAU OF STATISTICS November 2012

The Australian Bureau of Statistics (ABS) is Australia's national statistical agency. The ABS has made a submission to this Inquiry (Submission #223) which focussed on the different ways in which populations can be counted (by place of usual residence, place of enumeration, the working population and the service population). This second submission provides options for improving the data available to analyse the impact of fly-in fly-out (FIFO) work practices on regions and on different sub-groups of populations.

Submissions have been made to this Inquiry regarding a diverse range of impacts arising from FIFO work practices. ("FIFO", here, refers to "circumstances of work where the place of work is sufficiently isolated from the workers place of residence to make daily commute impractical" Watts, 2004, cited in Morris, 2012). While the term FIFO is used in this paper we are proposing that future research and data analysis should focus on any long distance commuting regardless of the mode of travel.

In responding to the needs for information identified in the testimony and submissions, the ABS identifies three main issues: the complexity of measuring different population groups; the breadth of subjects about which information is required; and the geographic concentration of communities affected by FIFO work practices.

Firstly, both the "host communities" (the resource intensive regions that receive most FIFO workers) and the "home communities" (where FIFO workers reside when off roster (Morris, 2012)) are affected by FIFO. Different populations within these regions are also affected. The way in which people are impacted may vary, with some benefiting from new business or work opportunities, while others may face competition for labour or housing, or experience general cost of living pressures. People's choices to move to other locations during a time of significant economic or social change in these resource rich regions may be driven by positive opportunities for change (e.g. to capitalise on high rents or sale prices for their former homes or business), or by negative factors "forcing" people out. Regions need information about resident and service populations to plan for the opportunities and demands of industries using FIFO practices, and to monitor the impacts of these practices on communities and workers in the region. Without adequate data, regions will be unable to anticipate demand for infrastructure and amenities (such as housing, health and emergency services).

Secondly, the range of concerns raised in the testimony and submissions is very broad. It includes the supply and demand for infrastructure and services, regional economic conditions (such as house prices) and the wellbeing of usual residents of host communities and of FIFO workers themselves.

Thirdly, the geographic concentration of "host" and "home" regions means that small area, rather than state or territory level data, are required.

These issues present complex measurement challenges which (as discussed in the ABS' first submission) are not all able to be provided by a single data source. Most ABS collections are constructed to provide high quality national, state and territory estimates, but do not provide sufficient detail at smaller geographies. Regional data are available from collections such as the Census of Population and Housing, the Agriculture Census, dwelling sales data, personal income tax records and building approvals, but these sources cannot meet all of the aforementioned needs. . The Census is critical to the analysis, because it provides small area data; however Census questions relate to broad issues, and are collected from the Australian population every five years. Household surveys are more frequent and elicit more detailed data, but describe larger geographic areas.

Collecting more diverse and timely data for specific local geographies, such as mining areas, would require additional investment but would significantly enhance the quality of information and policy for regional Australia. Further analysis of available data sources can also provide additional information on issues relating to the FIFO workforce. The ABS is therefore proposing the development of a suite of related data and further analysis of data. The remainder of this submission suggests the scope of this work.

Proposed Scope of Data Development

Data development across a number of topics would all be required to form a view of the connected relationships with respect to the impact of FIFO in regions. The topics covered here include:

- Population estimates and projections
- Housing supply and affordability
- Cost of Living
- Labour Markets
- Employment conditions

The ABS can contribute greatly to the better understanding of these issues, but will have to be adequately resourced to do so. The scope of potential additional work is broadly outlined below.

- Population Estimates and Projections

Improved population estimates can provide a greater capacity for governments and service providers to respond to service and infrastructure demands. Many FIFO submissions highlight concerns about the increased pressure on essential services such as health, housing, transport infrastructure and emergency services in host regions. FIFO workers may consume services differently to the resident population. For example, FIFO workers may access medical services, but probably have little use for childcare in the host region. Hence there is a strong need to monitor and predict population change and turnover, particularly in host regions (where mining activity occurs).

As mentioned in the ABS' first submission, there are a number of population concepts that could be measured, including:

- Enumerated population

- Resident population
- Working population
- Service populations

The most critical statistical developments needed to inform the population counts needed to inform FIFO community debate are:

1. Expand the concept of residence to include “second residence” and improve the quality of resident population counts
2. Develop service population estimates for host regions (counts of FIFO workers and other service populations in regions)
3. Improve estimates of internal migration (resident population flows between regions)
4. Estimated projections of resident and service populations for regions

Development of the 2016 Census of Population and Housing is underway. The community consultation period is between 6 November 2012 – 31 May 2013 (www.abs.gov.au/census). The ABS is currently exploring the value of a ‘second residence’ question in the 2016 Census. This could collect improved data from persons who have more than one usual residence, such as FIFO workers. Ultimately this would then lead to improved resident population counts (from 2016 onwards), and provide for improved analysis of regional populations.

It is also possible that the ABS could utilise data about temporary residents, as well as usual residents, in service population measures. The ABS has produced experimental estimates of population flows around temporary movements of people. To produce similar estimates for multiple regions would require further development, funding, and access to key datasets held outside the ABS.

When people permanently relocate to a region, the ABS has developed a methodology for estimating annual regional internal migration and this would assist in monitoring the ‘flows’ of population. Solutions using new methods also have potential. For example, New Zealand’s statistical office has used mobile phone data to estimate population movements. Such methods could be analysed and adapted for the Australian context.

Currently, we have no way to project the population changes that result from workers commuting to a region. This requires information from relevant industries in regard to their planned labour demand into the future (e.g. as may be provided in a development application process). This is a data gap that could be filled but would require mechanisms for the capture of relevant information from the relevant industries as input to regional population projections. ABS could advise on methods, but do not currently produce small area population projections. .

- Housing Supply and Affordability

The population flows associated with FIFO work practices affect the demand for housing and accommodation in host regions in various ways. To plan for and manage the consequences of an increased demand for housing, decision makers need information about housing stock, supply, and

price. The Census provides good regional information on housing stock every 5 years. The ABS has conducted a pilot to produce more frequent regional dwelling stock estimates, which could be progressed with additional funding. Housing supply is well served at regional levels, with approvals for new dwellings published monthly in Building Approvals. This includes residential and non-residential accommodation, such as group facilities purpose built by mining companies, however there is a data gap in relation to the placement of transportable dwellings.

Mortgage and rental expenses are available from the Census, while the House Price Index is available for the Capital cities. The ABS could investigate providing more detailed regional house price data, for example, by collecting house sales transaction information recorded in State Valuer-General's files, which would require bringing together different administrative datasets.

- Cost of Living

Claims have been made to the Inquiry that the additional demand for goods and services in regions as a result of FIFO workers has caused prices to rise. The ABS produces the Consumer Price Index for capital cities, and two state governments (Queensland and Western Australia) produce regional price indexes, but there is currently no national price data at the regional level. There is potential for supermarket scanner data to be used to develop national data on supermarket prices for food and other grocery staples. The ABS is currently assessing these data to determine the feasibility of their use in constructing regional price data, however, further investment of resources would be required to complete the assessment and (if feasible) produce data.

- Regional labour markets

The ABS Census of Population and Housing provides a rich data set on the “working population profile” of regions including data on employment, occupation, and industry for a person’s main job in census week. However, more information is required about the capacity of Australian regional labour markets to support industry development in those regions, with questions being asked about whether mining operations and support services can source more of their workforce from local labour markets. The ABS Labour Force Survey produces some regional data for relatively large “labour force regions” but limitations in sample size also limit the extent of regional data that can be produced. Movements in and out of the workforce can be monitored to some extent through changes in numbers of people receiving Newstart allowances. The ATO is a source of data on numbers of wage and salary earners. ABS could investigate the feasibility of using these data to model regional labour force estimates and if feasible, potentially produce regional estimates.

- Employment conditions

The increase of FIFO work practices is most noticeable in the mining sector, but employers across many industries require their staff to travel long distances. Research is required on the employment conditions of these workers from both the employer and employee perspective. These workers require additional resources from employers (travel, accommodation, and other services), and at the same time face complex issues regarding the personal impacts of this type of work. Regular household, employer and industry surveys are conducted by the ABS which provide information

about employment conditions and practices, although there is currently nothing that informs the specific issue of FIFO work. With adequate resourcing and development, it may be feasible to develop outputs on FIFO practices and costs at the employer level, and pay and conditions questions at the employee level.

Proposed Scope of Further Analysis

As discussed above, a number of collections are able to provide data at a regional level. Because of their availability at small areas, these are the best data sources for assessing the impact of FIFO on regions. To date, this capacity has not been fully exploited, but they have great potential. For example, there is some concern that people within a community not earning “mining wages” are unable to secure housing and they therefore move to less expensive areas. Analysis of Census data could be used to assess changes in the employment diversity of resource intensive regions, where previous residents have moved to and the circumstances of current and prior residents. The first release of the Statistical Longitudinal Census Dataset (SLCD) in late 2013 (statistically linking about one million people from the 2006 Census to the 2011 Census, and then to future Censuses) will provide an additional dimension to the Census's capacity to understand the characteristics of regional populations. Data from household surveys could be used to assess characteristics and wellbeing of different population groups affected by FIFO (e.g., workers in the mining industry) at a national level. Regional data experts within the ABS can, if appropriately resourced, liaise with government and other analysts to support robust regional analysis. The ABS could provide additional analysis on the social, economic and demographic characteristics of regions impacted by FIFO and, in turn, guidance for other data users to more effectively report on the outcomes of FIFO work at both the personal and community level. For example, the ABS is able to produce small area data for educational qualifications and rates of volunteering, to list some potential indicators of community wellbeing. Social cohesion analysis benefits from good data but it is not purely a statistical matter, and often the highest calibre research uses non-quantitative methods alongside pure “numbers”. We are happy to acknowledge the strength of these strategies and to advise researchers outside the ABS on the use of our data and methods.

Concluding Remarks

As the national statistical agency, the ABS is committed to the ongoing provision of high quality statistics for informed decision-making, discussion and research with governments and the community. The ABS' first submission (focussing on population measures) noted that the ABS continues to explore developing improved measures of different types of populations, but providing these as a matter of course is beyond the capacity of our current work program. This is also the case in relation to the additional data and analysis ABS is proposing will meet the broader and interconnected issues that many users wish to understand in planning for FIFO industries in regions. With appropriate resources, the ABS, with its data collection infrastructure and ability to integrate new data and methods with existing economic and social datasets, is well positioned to meet this need.

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Reference

Morris, R. (2012) *Scoping Study: Impact of Fly-in Fly-out/Drive-in Drive-out Work Practices on Local Government*, Australian Centre of Excellence for Local Government, University of Technology, Sydney.