

# Fly-in fly-out workforce practices in Australia

## The effects on children and family relationships

Veronica Meredith, Penelope Rush & Elly Robinson

A limited but growing amount of Australian research into fly-in fly-out (FIFO) work practices tentatively suggests that a FIFO lifestyle can have positive, negative or few effects on children and on family relationships, depending on the circumstances. Effects vary according to a range of contextual factors, such as workplace cultures, rosters and recruitment practices, as well as community and home environments, and individual characteristics. As a result, there is a high level of complexity involved in understanding the FIFO lifestyle and how it may impact on outcomes for children and family relationships. Substantial limitations in regards to the available evidence highlight the need for further research rather than providing any robust conclusions.

### KEY MESSAGES

- Limited studies exist that explore the effects on children and family relationships of having a FIFO parent. Research to date indicates that FIFO families are likely to be healthy, functioning families that demonstrate high levels of communication and cohesion. Most FIFO couples report healthy, satisfying and cohesive relationships.
- Potential impacts on children include: negative emotions experienced as a result of the FIFO parent's absence; increased levels of behaviour problems (particularly amongst boys) when the parent is away for longer periods; greater experiences of bullying at school; and increased pressure to succeed academically. However, some children view the extended time that a FIFO parent has at home as a positive outcome.
- Parenting is a challenge for FIFO families, particularly for partners at home to manage the continual transitioning from solo parenting to co-parenting. Providing for the physical, emotional and intellectual needs of children can be difficult without the support of a partner at home.
- The ability to communicate regularly, privately, effectively and spontaneously is an important factor that mediates the impact a FIFO lifestyle can have on children and families.

**KEY MESSAGES** (continued)

- Family support services, policy-makers and practitioners need to be aware of the unique set of challenges faced by FIFO workers and their families.
- Further research is needed that is longitudinal, engages with all types of FIFO workers and their families, and includes data collection prior to entry into FIFO work.
- A FIFO lifestyle does not suit everyone. Families considering FIFO should thoroughly review the likely advantages and disadvantages to all members of the family. Before commencing FIFO work, families should identify the resources and supports available at the work site and in the home environment and be aware of pressure points and coping strategies.

## Introduction

The mining boom in Australia has led to a rapid increase in a fly-in fly-out/drive-in drive-out (FIFO/DIDO) workforce in recent years. The increase in such work arrangements has resulted in corresponding concerns for the impact that the associated lifestyle has on these workers and their families.

In 2011, FIFO/DIDO workforce practices in regional Australia became the subject of an inquiry by the Commonwealth House of Representatives Standing Committee on Regional Australia (the Inquiry; Commonwealth of Australia, 2013). The Inquiry report, published in February 2013, highlighted the limitations of existing research on FIFO/DIDO work practices, as well as reflecting the considerable anecdotal evidence presented regarding the FIFO/DIDO lifestyle and its effects on families and communities.

The report alluded to the “two faces” of FIFO/DIDO work. FIFO/DIDO work practices impact on workers and their families as well as the “host” and “source” communities<sup>1</sup> from which they work and reside. Stories in the Inquiry report ranged from a decrease in service delivery (e.g., availability of doctors) for residents in established communities close to FIFO/DIDO workplaces, through to the benefits of access to the wealth of the mining industry for FIFO/DIDO families from source communities, without having to uproot from established education paths and social networks. The report outlines these and many different issues that need attention as a result of a rapidly growing FIFO/DIDO workforce.

This paper summarises the emerging literature on the effect on children and family relationships of having a FIFO/DIDO parent. Research to date suggests that there can potentially be positive, negative or few impacts for children and family relationships, which reflects the enormous diversity of the FIFO/DIDO lifestyle and its characteristics. Impacts vary according to a range of contextual factors, such as workplace culture, types of rosters and recruitment practices as well as community, home and personal factors. Implications for policy, research and practice are outlined in response to the findings of the literature review.

The main section of this paper is split into three parts. Definitions, workforce profile and other background factors are discussed first. The second part of the paper discusses a number of contextual factors that are likely to impact on the FIFO/DIDO experience for workers and their families. The third part summarises the findings from the literature in relation to impacts of a FIFO/DIDO lifestyle on children and families. The combined sections highlight the considerable diversity

<sup>1</sup> “Host” communities refer to the communities nearest to the FIFO worksite. “Source” communities are the originating communities from where workers come—their place of residence where families still reside.

of FIFO/DIDO work experiences for families, and the various ways in which they navigate through and deal with these experiences.

As there has been little research that focuses specifically on DIDO work practices, FIFO experiences are the main focus of this paper. The terms FIFO/DIDO or DIDO will be used where the research or literature was also relevant to DIDO.

## History and definitions

Workers in remote mining operations in Australia, dating back to the mid-19th century, resided in townships of varying size that were developed by the resource companies near the site of the mine (Commonwealth of Australia, 2013). Australia began to adopt the use of FIFO work practices in the early-1980s as an alternative to purpose-built townships, when developments in communications and transportation, particularly cheap and reliable air transport, resulted in FIFO work practices becoming a viable option (Storey, 2009). Storey (2001) described a multitude of factors that have contributed to increased FIFO work practices in the mining industry in recent times, including:

- greater cost of town construction and maintenance;
- costs and difficulties with providing social overhead capital;
- industrial disputes;
- worker preference for opportunities provided in metropolitan compared to rural/remote areas; and
- changing tax and structural arrangements within the mining industry.

The Inquiry specified the introduction of the *Fringe Benefits Tax Assessment Act 1986*, which categorised company housing as a “fringe benefit”, as a factor in the move away from purpose-built company towns. Additionally, a tight labour market, skilled labour shortages, and the costs associated with closing towns once the resource is exhausted or economically unviable are outlined as contributing factors by submissions to the Inquiry (Commonwealth of Australia, 2013).

## Definitions

Issues have been raised regarding the terminology used to describe work arrangements where the employee and employer are geographically separated and significant travel is undertaken to get to the workplace (Storey, 2009; Watts, 2004). Fly-in fly-out is a restrictive descriptor as it clearly focuses on air transport (Storey, 2009). Other terms mentioned during the Inquiry to capture varying modes of transport included drive-in drive-out (DIDO), bus-in bus-out (BIBO) and ship-in ship-out (SISO) (Commonwealth of Australia, 2013). The literature highlights other efforts to accurately describe these work arrangements, including *commute work* and *long-distance commuting* (Storey, 2009),<sup>2</sup> and *intermittent husband absence* (e.g., Taylor, Morrice, Clark, & McCann, 1985).

Fly-in fly-out work practices occur across a number of professions, such as medical and allied health services, but are predominantly associated with the resources industry (Commonwealth of Australia, 2013). This paper focuses on FIFO work practices in the mining industry in particular, and for its purposes the definition of fly-in fly-out mining operations is:

... those which involve work in relatively remote locations where food and lodging accommodation is provided for workers at the work site, but not for their families. Schedules are established whereby employees spend a fixed number of days working at the site, followed by a fixed number of days at home. (Storey, 2001, p.135)

<sup>2</sup> Storey (2009) proposed that the term *commute work* fails to capture the complexity of the work arrangements, as commuting is an integral part of most workers' experiences. He further proposed that *long-distance commuting* fails to focus on the complexity of work arrangements associated with FIFO as it highlights distance, which is considered a less important variable in comparison to shift length and travel time to/from work.

## Workforce profile

The Inquiry highlighted a distinct lack of authoritative national data regarding the use of FIFO work arrangements in Australia. As a result, an accurate estimate of the national FIFO workforce is unavailable. Current limitations with Census data collected by the Australian Bureau of Statistics (ABS) were highlighted in the Inquiry report, including the transience of FIFO workers and the limitations of current Census questions in assessing the breadth of the FIFO workforce (Commonwealth of Australia, 2013).

The lack of national data has implications for accurate estimations of the impact of a FIFO workforce on local services and future workforce projections. The implication, as stated in the Inquiry report, is that as available data are inconclusive in terms of numbers of FIFO workers, “a wide range of parties each make use of their own estimates of FIFO worker presence to support their claims” (Commonwealth of Australia, 2013, p. 17).

On a state/territory level, much of the FIFO workforce in Australia is concentrated in Queensland and Western Australia. Estimates of FIFO workers in each state (or at mining sites in the state) indicate the following:

- In June 2012, approximately 31,480 FIFO workers counted in the resources regions of the Bowen Basin (Queensland Office of Economic and Statistical Research [QOESR], 2012a) and Surat Basin (QOESR, 2012b).
- In 2011, the size of the mineral and energy sector workforce in WA was estimated at 90,000, with approximately 46,800 people (52%) employed as FIFO workers. By 2015, the numbers are expected to rise to 110,000 and 63,500 (57%) respectively (Chamber of Minerals and Energy of Western Australia, 2011).

While the resource sector workforce is predominantly male, the proportion of female workers has increased in recent years to around 15%. A number of challenges for female workers are outlined in the Inquiry, including lower wages, interpersonal relationship stress and family commitments (Commonwealth of Australia, 2013).

Most resource companies have some form of Indigenous employment program (including recruitment and training) and according to the ABS, in 2006 there were 2,491 Indigenous Australians employed by the resource industry, either as local residents or as part of a FIFO workforce. However, on average, Indigenous employees earn less than their non-Indigenous co-workers and some distinct factors limit Indigenous employee participation. These include Indigenous communities’ distance from primary FIFO hubs and camp accommodation taking people away from country. Efforts have been made by some resource companies to address these issues, such as on site and in-camp mentor programs, flexible recruitment and retention practices, culturally sensitive leave allocations, and all-of-operation cultural training (Commonwealth of Australia, 2013).

Overall, projections from a number of different sources indicate that the FIFO workforce is likely to continue to grow (Commonwealth of Australia, 2013; Hoath & Haslam McKenzie, 2013).

## The influence of contextual factors

The effects of the FIFO/DIDO lifestyle on families and children are likely to be influenced by a number of contextual factors, which are described in this section.

Two categories of factors are discussed. Organisational factors take into account a range of work-related circumstances from both an organisational and individual viewpoint. Individual family factors provide a contextual understanding of the reasons a family chooses to undertake the FIFO lifestyle, and how the structure and life stage of individual families can create unique challenges.

## Organisational factors

The Australian mining industry consists of many different forms of principal ownership, each with its own set of organisational policies and practices that vary according to the mine location (i.e., solely FIFO, solely residential, or a combination of the two); the life stage of the mine (from exploration through to construction and operating phases); the commodity being extracted; and myriad other idiosyncrasies that underpin company structure and philosophy (Australian Securities Exchange, 2013; Beach, Brereton, & Cliff, 2003). Some of these factors are considered in this section in order to give a macro-level context to the experiences of FIFO workers and their families. It is important, however, to recognise that workplace policies and practices identified at one location cannot be generalised to all locations, due to the heterogeneous nature of the mining industry (Sibbel, Sibbel, & Goh, 2006; Solomon, Katz, & Lovell 2008).

### Management practices and workplace policies

Management of any company that utilises FIFO labour requires a level of expertise, specialist knowledge and skills that frequently go beyond those of a residential business operation located within a major city or regional centre (Sibbel et al., 2006). Management decisions can vary across a range of issues, such as:

- working out how to design a village facility within a coastal town, at an inland town-based or an inland remote site;
- how to allocate accommodation to workers;
- ensuring the provision of healthy meals;
- making sporting and social activities available;
- managing employees who are not coping or experiencing family or relationship issues, mental health problems or excessive drug or alcohol use; and
- work-related fatigue.

The size of the organisation may also impact on the ability of companies to implement workplace policy that acknowledges and addresses the specific needs of FIFO workers and families. Large organisations are more likely to be able to provide access to the diverse range of resources needed to manage these challenges well, but smaller mining companies may lack the financial leverage to source the diverse range of expertise needed (Hutchins, Di Cieri, & Shea, 2011; Sibbel, 2010). Hence, the individual experiences of FIFO workers (and subsequently their families) are in part influenced by the types of services that mining companies are able to provide.

### Flexible workplace policies

Flexible work practices acknowledge that workers' personal circumstances can change over time as they move through different life stages (i.e., marriage, children, family commitments) and deal with family and personal health issues as they arise. Experts in the field indicate that flexible styles of management, for example the development of policies that meet the changing needs of FIFO workers, are more likely to retain employees than organisations that are inflexible (Sibbel et al., 2006). Inflexible workplace policies are more likely to impact on the FIFO worker's ability to respond to changing family needs, which in turn can affect a worker's level of focus at work. Interviews conducted with Human Resource Managers across four mining sites revealed that while workplace policies vary from site to site, few companies promoted flexible policies around leave options, ability to work from home during a family crisis, or responsiveness to worker demands for shorter roster cycles (Gallegos, 2006).

Flexible workplace policies are important for all workers with families, however they are particularly salient for FIFO workers, who would benefit from having access to contingency plans that allow them to get home quickly in the event of a family emergency. This type of provision would alleviate the level of stress associated with not knowing what plans could be put in place if such

an emergency was to arise. This issue is frequently cited in the literature as a concern for FIFO workers and their families (Bradbury, 2011; Clifford, 2009; Henry, Hamilton, Watson, & McDonald, 2013; Sibbel et al., 2006; Sibbel, 2010).

### Workplace culture

Issues related to the workplace culture in a FIFO environment can have adverse impacts for FIFO employees and lead to higher workplace turnover and lower worker productivity (Beach et al., 2003). Families may also experience negative impacts associated with workplace culture (Dennis & Baker, 2012). There are frequent references in the literature to workplace culture or attitudes that are linked to negative experiences for the FIFO worker, and these are outlined below.

### FIFO worker status

The literature strongly supports the notion that in FIFO workplaces, contract employees (those employed by subcontractors to the mining industry) are treated differently from employees directly hired by the mining operator. Examples provided in the literature include contract employees being placed on longer rosters, allocated poorer standards of accommodation, expected to give up their seats on a flight home at the last minute, and receive fewer benefits (Clifford, 2009; Gallegos, 2006; Sibbel et al., 2006). In addition, the level of assistance provided to workers employed by companies that are contracted to mine operators is reported to be considerably less than that provided to employees of owner-operator companies (Gallegos, 2006). Moreover, Beach et al. (2003) reported that the level of workforce turnover is far greater for contract workers compared to mine operator employees, with suggestions that longer and more compressed work rosters<sup>3</sup> and limitations on use of camp facilities are contributing factors.

### Drinking culture

An additional workplace context discussed in the literature is the heavy drinking culture reported to exist across some mining sites (Gallegos, 2006; Joyce, Tomlin, Somerford, & Weeramanthri, 2013; Torkington, Lorkins, & Gupta, 2011).

An analysis of data from the WA Health and Wellbeing Surveillance System (Joyce et al., 2013) found that compared to shift workers who are not FIFO, and workers in other types of work arrangements, FIFO workers drink at risky levels, with significantly more consumed on a drinking day and a significantly greater number of drinking days in total. Heavy drinking has also been found to spill over to excessive drinking at home during the leave period (Clifford, 2009).

In a study of FIFO/DIDO workers' alcohol consumption over a 6-month period, Clifford (2009) found that a greater percentage of workers drank at moderate- to high-risk levels for short-term and long-term harm<sup>4</sup> during the leave period, than sex-matched community samples. Drinking levels at the work site for this group of participants was found to be equal to or less than community samples, although the levels were still moderately risky for both short- and long-term harm. The reduced levels of alcohol consumption by workers during the work cycle may in part be attributed to limited leisure time, alcohol restrictions at the camp site, or the use of random breath testing that is conducted by some work sites.

It is important to note that while there is a reported culture of heavy drinking as a social outlet in some of the research, this is not a culture that all FIFO employees engage with. Many FIFO workers choose not to drink, or not to indulge heavily, and even find the drinking culture exclusionary of those who do not drink (Torkington et al., 2011). In a phenomenological account of FIFO workers

<sup>3</sup> A compressed roster has been defined as working a shift of 10 hours or more on consecutive days over a period where the work-to-leave ratio is greater than two (Clifford, 2009). For example, staying on site for 28 days followed by 7 days leave at home, a cycle which is common among mining construction workers (Henry et al., 2013), has a work-to-leave ratio of four and would be considered highly compressed due to the longer time away from home, compared to a less compressed roster of 8 days on consecutive shifts followed by 6 days leave at home (a work to leave ratio of 1.3:1).

<sup>4</sup> See the National Health and Research Council's (2009) *Australian Guidelines to Reduce Health Risks from Drinking Alcohol* for detailed explanations of short- and long-term harm.

and families conducted by Gallegos (2006), there was a general consensus that heavy drinking at mine sites was a cultural aspect of FIFO that was improving. Heavy drinking was a phenomenon that participants reported existed among young single workers, rather than people who were older and had family responsibilities.

Hoath and Haslam McKenzie (2013) reported that the FIFO industry has taken considerable steps to limit alcohol consumption, with many work sites now dry and routine alcohol and drug tests undertaken. However, qualitative evidence indicated that the crackdown on use on site may lead to a higher consumption of alcohol when at home.

### Attitudes towards help seeking behaviour

The methods by which workers coped with the FIFO lifestyle, and their willingness to seek help if difficulties arose, was outlined in a number of studies. One participant in a mental health survey conducted by Lifeline WA noted: “Well it’s really just a case of suck it up princess, you just do it” (Henry et al., 2013, p. 82). In fact, an overall majority of the FIFO workers surveyed in this study indicated that they maintain this kind of approach to coping with difficulties faced as part of undertaking the FIFO lifestyle. Participants (particularly male workers) were reported to have demonstrated poor insight into their own levels of stress and a general reluctance to seek support. Barriers to support seeking identified within this group included a culture of not discussing problems, fear of loss of employment if problems were openly discussed, embarrassment, and mistrust in those supports made available (Henry et al., 2013).

A culture of reluctance to seek support was also identified in a study conducted by Torkington et al. (2011), who interviewed a small group of FIFO/DIDO workers who were currently, or had previously, entered into this type of work arrangement. Along with a general fear they would be stigmatised or otherwise penalised if they admitted to not coping, some of the participants were concerned that their confidentiality would be breached if they did seek support. While some participants in this study reported feeling comfortable talking to a nurse or medic for support for physical health concerns, they were not sure they would be able to discuss mental health problems with these health professionals. When workers indicated that they did seek help, they preferred to talk to friends on site, colleagues, or family, rather than seeking help through official channels such as Employee Assistance Programs (Henry et al., 2013; Torkington et al., 2011).

### Recruitment practices and FIFO expectations

Research indicates that applicants for FIFO positions frequently lack accurate knowledge or understanding of how the mining industry functions, and how a FIFO lifestyle may impact on themselves and their families (Sibbel et al., 2006).

In an exploration of workforce turnover in the mining industry, Beach et al. (2003) interviewed a number of Human Resource Managers who acknowledged that hiring of “green” recruits (people with no prior experience in the mining industry) needed to be managed carefully. As one participant articulated:

*Of the crew we brought on, we had a lot of inexperienced people ... they’d never done fly-in before, some had never worked away from their families before. So they were feeling (pretty low) and their families were screaming for them. (Beach et al., 2003, p. 35)*

One study in the Pilbara region of WA found that many couples take around 6 months to work out if the FIFO lifestyle is suitable for them and their families (Watts, 2004). This has potential impacts on workforce training, turnover and recruitment processes if the employee leaves the position, and undoubtedly creates disruption for workers (and subsequently their families) as they seek alternate employment options.

## Roster cycle

Onshore mining operations have increasingly become 24-hour operations. This, coupled with the increased use of FIFO workers, has led to the common practice of rosters that combine a set number of days living on site and working up to 12-hour shifts with a set number of days spent at home on leave (Solomon et al., 2008). The types of FIFO roster arrangements that are put in place by mining operations vary according to the mine site, the employer and the job being undertaken (Sibbel, 2010). For example, machinery and plant operators along with their direct supervisors are more likely to have “shift” work, incorporating a number of “day shifts” followed by a number of “night shifts”. A common pattern is 1 week of night shift, followed by 1 week of day shift, followed by time on leave (Sibbel, 2010).

The proportion of time spent at home and at work depends on the symmetry of the work roster offered by the employer. Rosters can be symmetrical (e.g., 2 weeks on, 2 weeks off), asymmetrical (e.g., 2 weeks on, 1 week off), short (4/3 days) or long (6/1 days), and vary between staff and contractors, and between construction, operations and administrative personnel (Storey, 2009). Watts (2004) suggested that asymmetrical rosters are more commonly offered by land-based mining companies. There are, however, a number of variations of asymmetrical rosters in use, for example:

- 6 weeks on, 1 week off (6/1);
- 2 weeks on, 1 week off (2/1);
- 9 days on, 5 days off (9/5);
- 8 days on, 6 days off (8/6); and
- 5 days on, 2 days off (5/2) (Clifford, 2009; Sibbel, 2010).

Highly compressed roster arrangements<sup>5</sup> have been linked to lower levels of employee satisfaction. In particular, work-to-leave ratios greater than two combined with longer roster cycle times have been considered to be less satisfactory (Clifford, 2009).<sup>6</sup>

## Access to communication

Access to communication is an important factor in mediating the impact a FIFO lifestyle can have on children and families (Gallegos, 2006; Sibbel et al., 2006). The ability to communicate regularly facilitates a level of emotional support that only family members can provide (Fresle, 2010). Access may be compromised in two ways—the ease with which a family can communicate when the FIFO worker is on site, and the ease with which the at-home partner can contact the worksite more generally (Fresle, 2010; Sibbel et al., 2006). Partners of FIFO workers have expressed their frustration at not being provided with the company’s communication information and not knowing how to access their partner on site, other than if adequate mobile phone coverage was available (Sibbel, 2010). Communication facilities vary across sites, as demonstrated by varied reports of no access to a mobile phone during work hours, no mobile coverage, no Internet access, and poor quality mobile or wireless coverage (Henry et al., 2013).

The ability to access and use communication technology, along with obtaining the time and level of privacy required for meaningful contact to occur, can vary depending on a number of factors, including:

- the worksite (e.g., the existence of a mobile phone tower and/or availability of mobile reception within the worksite or accommodation facility);
- mine operator (e.g., workplace policies around availability and access to communication);

5 See footnote 3 on page 6 for definition of “highly compressed rosters”

6 The National Mining Industry Award 2010, which came into force on 1 January 2010, set down guidelines for hours of work, maximum weekly hours, rostering, and breaks that are specific to the mining industry (Australian Industrial Relations Commission, 2010). However, some states or territories have their own additional guidelines and regulations. For example, in Western Australia the Commission for Occupational Safety and Health (2006), has implemented a *Code of Practice Working Hours* which offers a detailed guide on potential hazard factors, some of which are specifically associated with FIFO working hours and roster arrangements. In addition, the code highlights the need to consider individual factors such as sleep, health, and lifestyle factors including family commitments and long distance commuting. A section is also provided explaining the risks associated with fatigue that needs to be considered in relation to the workplace.

- job position; and
- the ability and willingness of the employee to use new technologies (Sibbel et al., 2006).

However, where FIFO workers and their families do have access to communication technology, they report using social networking sites (e.g., Facebook), regularly receiving photos of kids via email, using real-time video applications (e.g., Skype, FaceTime), and daily phone contact to help them stay actively involved with their families (Henry et al., 2013).

### Accommodation and facilities at worksite

The accommodation available at mining sites is reported to vary considerably in terms of the quality of the facilities, how these facilities are managed, and the degree to which their design provides the necessary privacy individuals require (Sibbel, 2010). According to the Queensland Urban Land Development Authority (2012), non-resident worker accommodation in Queensland can range from large camp-style facilities, in-fill micro camps (where accommodation is built to fill vacant town blocks), and apartment or motel type developments of varying scales. Across Western Australia, individual rooms in mining site accommodation is reported to vary from having individual ensuites, shared ensuites, and external shared facilities in the form of ablution blocks (Makeham, 2011; Sibbel, 2010).

In a survey conducted by the Queensland Resources Council and distributed through its member companies, approximately 62% of non-resident mining employees rated the quality of their accommodation as good or excellent; however, the remaining 38% of non-resident employees rated their accommodation as neutral, poor or very poor (URS Australia, 2012). Complaints in relation to accommodation range from inability to sleep because of excessive noise, onerous rules and regulations, isolating conditions in remote facilities, having to share showers and toilets, unsuitable conditions for nightshift workers (e.g., using an outdoor toilet in daylight rest hours, further disrupting sleep patterns), and quality of the food provided (Gallegos, 2006; Henry et al., 2013; Sibbel, 2010; Sibbel et al., 2006). Many participants in the Lifeline WA survey reported that camp lifestyle was inadequate, with too much drinking and noise and too much control over private activities (Henry et al., 2013).

### Individual and family factors

The organisational factors outlined above can play a significant role in influencing workers' experiences of the FIFO lifestyle. Organisational culture and conditions can create a set of circumstances that interact with a range of family and individual factors to determine the FIFO experience. Individual and family related factors explored in the literature to date include reasons for entering into the lifestyle, the life stage of the worker and their partner, family structure, and the age of any children at the time that research is being undertaken. These factors are explored in greater depth below.

#### Reasons for entering FIFO lifestyle

There are varying reasons that individuals and/or families decide to enter into the FIFO lifestyle and many of those cited by younger workers, couples and families are strategic in nature. Financial reasons are frequently cited as the main reason that FIFO employment is considered, while some workers indicated that choosing the lifestyle was not an option, but a requirement of the job (Clifford, 2009, Gallegos, 2006). Other reasons cited for opting to work on a FIFO/DIDO arrangement included the FIFO parent being able to spend more time at home on leave, and the intrinsic value of the job itself (Gallegos, 2006).

Sibbel and colleagues (2006) argued that high income, working hours, and opportunities for career advancement and training are part of an overall assessment that individuals make when choosing the FIFO lifestyle. The needs of workers' families, including educational and child-care

needs, availability of family and other psychosocial support, as well as employment and career opportunities for family members, are also considered.

While high levels of income are an incentive for families to enter a FIFO/DIDO lifestyle, evidence suggests that correspondingly expensive lifestyle choices can become a trap for some families, particularly if the FIFO lifestyle is found to be unsuitable and the need to go back to previous income levels is problematic due to financial over-commitment (Hoath & Haslam McKenzie, 2013; Sibbel, 2010; Watts, 2004).

### Family structure, age and number of children

The number of children in the family can influence adjustment to FIFO living, as can the age of the children (Gent, 2004). The decisions to work in a FIFO arrangement may clearly change over time as people's needs and the needs of their families change (Sibbel et al., 2006). Some couples make a decision to set themselves up financially by engaging in FIFO employment, but opt to leave once they decide to have children. Other families plan to leave the FIFO lifestyle once their children reach secondary school, believing that better educational opportunities are available at city-based schools. Evidence suggests that at each stage of child development, there are unique challenges that FIFO parents face, particularly the at-home partner, while some age groups present more unique challenges than others (Henry et al., 2013; Voysey, 2012).

## The effects of having a FIFO/DIDO parent on children and family relationships

The following section outlines the methodology used for the literature search, and a summary of findings that specifically relate to the effect on children and family relationships when a parent is employed as a FIFO/DIDO worker.

### Methodology

A specialist AIFS librarian conducted a search for Australian literature over the period 1993–2013 for the key terms “fly in” or “drive in”; “fly in, fly out”; “drive in, drive out”; “FIFO” and “DIDO”; and “long distance commuting”. Databases searched using these key terms included:

- the Australian Institute of Family Studies Catalogue;
- Australian Family and Society Abstracts;
- Australian Public Affairs Information Service;
- Australia New Zealand Reference Centre; and
- EBSCO host databases:
  - Academic Search Premier;
  - Business Source Premier;
  - PsychArticles, PBSC – Psychology and Behavioural Sciences Collection;
  - PsychInfo; SocIndex; and
  - Women's Studies International.

The initial search yielded 23 articles and published books. Snowballing techniques and discussions with researchers in the field yielded an additional 37 publications, reports and articles for consideration. All identification techniques included peer reviewed journals and “grey”<sup>7</sup> literature. Consistent with the Inquiry, the literature search found a lack of depth and breadth of current peer-reviewed evidence regarding the effect on children and family relationships of having a FIFO parent in the onshore mining industry in Australia. Hence, this review also included a number of unpublished works relevant to the topic.

<sup>7</sup> Grey literature is defined as “information produced on all levels of government, academia, business and industry in electronic and print formats not controlled by commercial publishing” (Lawrence, 2012, p. 123).

In order to provide a review of the effects of a FIFO/DIDO work arrangement in the Australian onshore mining industry on children and on family relationships, studies with data that did not examine or did not provide results specific to these criteria were excluded. Criteria used for exclusion included the following: prospective studies; where evidence or results did not specifically identify participants as FIFO/DIDO workers or their families; use of proxy data as opposed to recruited participants; articles related to recruitment, workforce turnover or safety in the mining industry that did not provide direct evidence of impacts to the worker or their family; studies specifically looking at impacts on local mining communities or that examined resident workers and their families; and where anecdotal evidence only was provided.

While it is recognised that similarities exist between the benefits and challenges faced by families involved in onshore and offshore mining FIFO arrangements, studies that specifically looked at offshore FIFO work arrangements and impacts on families and children were not included in this review. Studies that looked at effects of FIFO/DIDO arrangements for ancillary services such as doctors, dentists and other health professionals or support services were also excluded.

Once the exclusion criteria were applied, a total of 16 articles were identified as specifically examining, or having results that related to, the effect on children and on family relationships of FIFO and/or DIDO work arrangements in the onshore mining industry in Australia. An additional research article, published during the drafting of the methodology for this report, was subsequently included. Three of the studies draw on samples that include offshore oil and gas industry workers; however, in all cases onshore mining FIFO/DIDO participants were in the majority. Two of the studies drew information from both FIFO and DIDO participants, however there was no distinction made between the two groups in the results of their research. No studies were found that focused solely on the effects of having a long-term DIDO parent on children and on family relationships. As a result, the bulk of the findings discussed in this current paper refer to the impacts on children and on family relationships of FIFO work arrangements specifically. Where studies included DIDO participants, this is specifically indicated.

A detailed table of the 17 studies included in this review for this next section can be found in Appendix A.

## Findings

Of the 17 studies included in this review, four studies adopted quantitative research methods, seven studies used qualitative research methods and six studies used a mixed methods approach. The scale of studies varied considerably, with around one-third recruiting less than 100 participants, approximately half recruiting between 100–200 participants, and three larger studies with 559, 810 and 920 participants.

The use of control groups in the research was limited to four studies. Two studies used comparison groups within the participants recruited, one study used population norms, and the fourth study made comparisons using standardised test norms.

Findings fall into five themes relating to the effects of FIFO employment. These themes are:

- family functioning;
- wellbeing, including mental health:
  - FIFO worker; and
  - at-home parent/partner;
- couple relationship;
- parenting; and
- the effects on children.

Each theme, and the findings related to that theme, is expanded upon below.

## Family functioning

A number of research studies sought to assess family functioning among FIFO participants using standardised scales. Measures included family adaptability and cohesion; family communication and family satisfaction; dyadic adjustment (the quality of couple relationship); and the family assessment measure (FAM; Skinner, Steinhauer, & Sitarenios, 2000). The types of functioning measured within these scales included task accomplishment; role performance; communication; affective expression; involvement; control; values; and norms (see Bradbury, 2011; Sibbel, 2010; Taylor & Simmonds, 2009).

A quantitative study of 63 FIFO workers and their partners found that FIFO family functioning, communication and cohesion were all in the healthy range (Taylor & Simmonds, 2009). Sibbel (2010) also reported that family functioning was within the healthy range for both FIFO workers and their at-home partners, and no difference in perceptions of family functioning between FIFO children, military children, and a community sample was found in a study by Kaczmarek and Sibbel (2008). Kaczmarek and Sibbel also reported that at-home mothers in FIFO families' reports of family functioning were higher than that of military or community groups. However, they found that families where fathers were away less than 1 month per year (in total) scored significantly better on family functioning in areas of affective involvement (amount of interest, care and concern family members invest in each other) and behavioural control (family style of maintaining discipline and standards of behaviour) than families with fathers away more than 5 months per year (in total).

In one small, qualitative study of female FIFO workers (Bailey-Kruger, 2012), FIFO work involved the suspension of home responsibilities, relationships, important events, starting a family, and balancing work and family responsibilities. However, mothers in the study said the support of extended family was what made FIFO work feasible.

## Wellbeing, including mental health

The Inquiry reported that depression and anxiety were consistently raised as a serious concern for FIFO workers. Both the Inquiry report and this review, however, point to the fact that the evidence to back this claim remains largely anecdotal. In addition, submissions to the Inquiry and a number of other sources make reference to claims in an article by Storey (2001) which suggested that FIFO has negative consequences for individuals, families and communities that lead to greater abuse of alcohol and drugs, family violence, family breakdown, and parenting problems. These claims, however, were not referenced in any detail in the original article beyond "a review of regional strategy documents, media reports and other materials" (Storey, 2001, p. 139). Further details regarding the rigour and quality of this evidence were not provided.

A number of studies in this review reported on FIFO families' mental health and wellbeing. Clifford (2009) found that FIFO employees and partners were generally no more likely to have high stress levels, poor relationship quality, or poor health behaviours than daily commute mining workers. Kaczmarek and Sibbel (2008) reported no difference in general functioning and Bradbury (2011) reported no difference in family functioning between FIFO partners and community samples. FIFO workers and partners were also found to have healthy family functioning using a range of standardised measures in studies by Taylor and Simmonds (2009) and Sibbel (2010). In contrast, a large study, which recruited over 900 participants, found that compared with the general population there was a high prevalence of psychological distress and a greater likelihood of a psychological disorder incidence amongst FIFO workers (Henry et al., 2013). Similar outcomes were found by Voysey (2012), who noted that while partners' overall psychological wellbeing was in the healthy range, they did report high levels of psychological distress. However, the mental health status of participants pre-FIFO was not available. Hoath and Haslam McKenzie's (2013) mixed methods study of two source communities in WA found that conflicting expectations of FIFO parents (e.g., children's and partner's attention on return home) and their partners (e.g., role of FIFO parent in the household and willingness to "do jobs") led to a greater vulnerability to feelings of isolation or depression.

There is considerable evidence throughout the literature that highly compressed rosters have a more negative influence on FIFO workers and their families, compared to less compressed roster cycles (i.e., roster cycles that are shorter in length and allow a more balanced time on leave) (Clifford, 2009; Gallegos, 2006; Gent, 2004; Hoath & Haslam McKenzie, 2013; Sibbel, 2010; Watts, 2004). For example, Gent (2004) found that FIFO employees who are satisfied with roster arrangements are less likely to be experiencing work–family conflict. Henry et al. (2013) also found that workers with highly compressed rosters had higher scores on the Kessler Psychological Distress Scale (K10) than those with less compressed rosters. In a small web-based study, Pini and Mayes' (2012) feedback from partners described some rosters as more emotionally difficult than others and that the availability of effective communication made a significant difference to how they felt.

Many studies indicated that the return to home and departure to work points in the FIFO roster are times of high stress, as couples and families prepared themselves for the impending separation from the FIFO worker in the days leading up to their departure, and subsequently adapting to having the worker home again (see Fresle, 2010; Gallegos, 2006; Henry et al., 2013). However, inconsistencies in stress levels have been found between self-reported perceived measures of stress and biological measures of stress using cortisol levels. One study found that both the FIFO worker and partner had significantly higher cortisol levels (indicating higher levels of stress) during the leave-to-work transition period compared to stable periods of the roster (Clifford, 2009). Both the worker and partner were more likely to argue or experience periods of depression and anxiety during these transition periods. In contrast, Clifford found that on self-reported measures of lifestyle stress (e.g., domestic chores and childcare) stress levels did not fluctuate significantly across the roster cycle for either the FIFO worker or the partners at home.

Further mental health and wellbeing impacts specifically related to FIFO workers and at-home partners are discussed below.

#### FIFO worker

Study participants in the research considered in this review were predominantly male workers, consistent with the gender balance in the FIFO workforce. Stress caused by being away from family and friends (especially for workers with children), negative impacts of highly compressed rosters, and high levels of stress experienced during the return/departure points in the work cycle were common findings across many studies in this review. For example, one study found that stress for FIFO workers was highest on the days leading up to leaving for work, and workers without children experienced lower stress levels compared to workers with children (Henry et al., 2013). Factors such as these, due to their very specific relation to FIFO work practices, highlight key points of the FIFO lifestyle that may be amenable to support and possible early intervention.

FIFO workers' wellbeing is further affected by aspects of working conditions such as the quality of accommodation and food, facilities to wash clothes and on site health-promoting initiatives such as healthy food and access to sporting facilities (Gallegos, 2006). Henry et al. (2013) found that significant stress arose from accommodation and work conditions on site, which were isolating and subject to overly onerous rules. Many workers found it difficult to seek support on site, and many used alcohol or illicit drugs to manage stress and disrupted sleep.

One study, by Gent (2004), used standardised measures with 132 participants to investigate the impact of FIFO work on wellbeing and work–life satisfaction. In this study, 57% of participants found being away from family and friends stressful and 65% believed that missing important family events impacted negatively on their relationships with family members, a finding supported by Hoath and Haslam McKenzie (2013). Gent (2004) also found that FIFO workers were lower on the Dyadic Adjustment Scale for dyadic consensus (extent of agreement between partners). Sibbel (2010) used standardised measures for relationship satisfaction, perception of family functioning and psychological wellbeing and found that FIFO workers were within the norms for healthy functioning on each subscale. Finally, Bradbury (2011) found that 4% of FIFO workers reported stress symptoms in the moderate to severe range and 21% reported depressive symptoms in the

moderate to severe range. This percentage of depressive symptoms can be compared to a population estimate for depressive episodes in men (including severe, moderate and mild depressive episodes) of 3% (ABS, 2007). While caution should be used in comparing the results, as the sample in the Bradbury (2011) study was small and likely to be non-representative, the study indicates that exploring mental health problems for FIFO workers is an important focus for further research.

In a small qualitative study of female FIFO workers (Pirota, 2009), some participants reported FIFO work as isolating and lonely, that they found it difficult to make and maintain friendships and that the long on site hours were physically, emotionally, and psychologically demanding. Several studies reported that social life at the site centred on drinking (Clifford, 2009; Henry et al., 2013; Torkington et al., 2011) with limited opportunity to participate in team sports (see Torkington et al., 2011).

Positive impacts of the FIFO lifestyle, according to the 20 female FIFO workers in Pirota's (2009) study, included: enjoying the adventure; the clear separation of work from home; making close friends on site; and extended time at home for quality time with friends and family. Some at-home partners in Bradbury's (2011) study of 143 FIFO family members had observed health and wellbeing benefits (such as career satisfaction and favourable work conditions) for their partners, which had knock-on effects for family functioning and father-child relationships.

#### At-home parent/partner

Eight studies were reviewed that considered at-home parents'/partners' mental health and wellbeing. General difficulties outlined included:

- finding employment that was sufficiently flexible to enable care for children (Gallegos, 2006);
- finding regular and affordable child care when spouse is absent, to enable working a full-time job (Hoath & Haslam McKenzie, 2013); and
- the physical and emotional work of managing children and a household without a partner at home (Gallegos, 2006).

Sibbel (2010), in a study of 122 FIFO workers and partners that used a range of standardised scales, found that while partners' overall psychological wellbeing was in the healthy range, they did report high levels of psychological distress. A study including 136 FIFO participants, that also used standardised scales, reported generally low short-term stress, depression and anxiety levels compared to published population norms, with a small proportion finding the working arrangements particularly stressful (Clifford, 2009). Bradbury (2011), in her study of 143 FIFO family members using standardised measures, found that mothers reported significantly higher levels of stress than their partners and community norms, but they reported fewer total difficulties in their children compared to the Australian community sample. Kaczmarek and Sibbel (2008) found significantly higher dysfunction was reported in areas of communication, affective involvement, and behaviour control towards other family members for FIFO mothers compared to community sample mothers, but no difference was found on general functioning between FIFO mothers and other groups.

Loneliness and social isolation for at-home parents was identified as a significant issue in a number of studies (Fresle, 2010; Hoath & Haslam McKenzie, 2013). Hoath and Haslam McKenzie (2013) reported that "online browsing" served as an antidote to boredom and loneliness for at-home parents who are confined to home in the evenings. Another small qualitative study (Pini & Mayes, 2012) found there was a "shared construction" of the mining wife as independent, practical, stoic, and self-reliant. More experienced FIFO wives expressed the need to regulate their emotions, with transitory feelings of sadness recognised as "trivial" and "irrational".

#### Couple relationship

A number of studies considered various measures of the quality of the FIFO couple relationship, but it is difficult to draw any clear conclusions due to different measures used. Many studies that

explored the FIFO couple relationship found no difference compared to other couple relationships across a range of measures.

Parents' relationship satisfaction was consistent with norms for married couples in one study using standardised scales (Bradbury, 2011). Clifford's (2009) study of 168 FIFO workers, again using standardised scales, found that FIFO employees and FIFO partner participants were generally no more likely to have poor relationship quality than the daily commute participants. Female FIFO workers in another study reported that having a relationship, and life generally, was a lot easier if their partner was also at the mine site (Bailey-Kruger, 2012). Interestingly, in the WA study conducted by Hoath and Haslam McKenzie (2013), service providers indicated that the demands and rhythm of the FIFO lifestyle might intersect with existing tensions. For example, where personal or relationship problems, or verbal or physical abuse were already present, or the potential existed, the stresses particular to a FIFO lifestyle could have a compounding effect.

In a study conducted by Sibbel (2010), FIFO couples' views on money, religion, friends, household tasks, time spent together, satisfaction with common interests, frequency of shared activities, and expression of affective and sexual relationships, relationship satisfaction scores showed no statistically significant difference between workers and partners, and scores for both workers and partners were within the published community norms for healthy functioning. In contrast, Gent (2004) found that FIFO workers had significantly lower scores for extent of agreement between partners and relationship satisfaction compared to a normative sample, but no difference was found for relationship cohesion. Partners in Voysey's (2012) study of 559 participants reported significantly lower levels of relationship satisfaction than workers, but (unlike findings in other studies) this did not vary according to roster length or work-to-leave ratio. Interestingly, FIFO workers in the Gent (2004) study scored significantly higher than the normative sample on affectional expression, possibly as a result of time away from home. For those couples with children, the relationship satisfaction and affectional expression scores were lowest where the youngest child was less than 5 years old. Gent's study, however, included offshore FIFO workers, making it difficult to compare findings to other samples.

As identified in a previous section, access and use of tools such as phone calls and social networking sites can have an important mediating effect on the impact a FIFO lifestyle has on families. Many studies identified effective communication as essential to relationship satisfaction throughout the home and away cycle (see Fresle, 2010; Gallegos, 2006; Henry et al., 2013; Hoath & McKenzie, 2013; Watts, 2004), even nominating communication as the "proxy" for the couple relationship when the FIFO worker is away (Fresle, 2010). In her qualitative study of 76 participants, Watts (2004) noted that most participants reported experiencing relationship strain and stress at some point during the FIFO experience, which increased as the length of time away increased. However, she also noted that a smaller proportion reported a strengthening of relationship, citing the benefit of a structured strategy that included good communication.

### Separation and divorce

There is a lack of empirical evidence at present to indicate whether the FIFO lifestyle contributes to greater rates of separation and divorce. ABS Census and local government area data indicates that there is no evidence of higher separation or divorce in the mining sector or in populations with a high FIFO workforce (Greer & Stokes, 2012).

A study that utilised interviews with community leaders and service providers in WA indicated that while there had been a critical increase in service demand by FIFO families, it was likely to be indicative of the growing proportion of FIFO families, rather than a greater need (Hoath & Haslam McKenzie, 2013). Service providers in this study, however, did not routinely document the FIFO status of clients; therefore no clear conclusions can be drawn. While the extent to which the FIFO lifestyle contributes to relationship breakdown is undoubtedly a valid avenue of inquiry, evidence at this stage remains largely anecdotal.

## Parenting

The greatest parenting challenge imposed by FIFO work that was found in this review was the transition from a single parent household (while the FIFO worker is away) to a dual parent household (when the FIFO worker is at home) and vice versa. Gent (2004) found that the coming and going created confusion as to who makes decisions and which role each partner plays. Similarly, Sibbel (2010) described the constant adjustment that is required between solo parenting and co-parenting. This challenge may be reflected in Bradbury's (2011) finding that over 50% of the mothers and fathers reported parenting conflict over child rearing issues in the clinical range.

Parenting in the absence of the FIFO parent presents challenges related to providing for the physical, emotional and intellectual needs of children without the support of a partner at home (Gallegos, 2006). Keeping a day-to-day routine regardless of the presence or absence of the FIFO parent was considered important for family harmony in the study undertaken by Gallegos (2006), as was a routine to deal with the lead up to departure and arrival of the FIFO parent.

Kaczmarek and Sibbel (2008) reported significantly higher dysfunction in the areas of communication, affective involvement, and behaviour control for FIFO mothers compared to community sample mothers, perhaps as a response to the additional challenges. In a large quantitative study by Lifeline WA (Henry et al., 2013), FIFO parents rated parenting as more challenging and less rewarding compared to other family groups.

## Effects on children

There were a limited number of studies that considered the effects on children of having a FIFO parent. Many of the studies used small sample sizes, children were of different ages and developmental stages, and findings were inconsistent, therefore limiting any generalisations. While it is difficult to draw any conclusions with the limited amount of research conducted in this area, some of the findings from existing research are outlined below.

One of the potential negative impacts on children is a lack of daily interaction with the FIFO parent (Bradbury, 2011). However the flipside is that the FIFO parent is home for extended periods and available during the day to spend quality time with children (see Gallegos, 2006; Pini & Mayes, 2012; Torkington et al., 2011). On a positive note, in Bradbury's (2011) study some children believed their experience of fathering was favourable to their peers, with blocks of extended time with their fathers at home allowing for greater involvement and intimacy.

Kaczmarek and Sibbel (2008) found no difference between FIFO children, military children and children from a community sample in areas of depression, anxiety, and perception of family functioning. Similarly, Bradbury (2011) found that FIFO children's emotional-behavioural functioning was healthy and that paternal FIFO employment is not a discrete, homogenous risk factor for child outcomes. A finding of high maternal stress in the study, however, may indicate that mothers play a significant "buffer" role for the family disruption caused by the FIFO lifestyle, and this may be an important area for further research.

The main costs of the FIFO lifestyle for children as suggested in the Bradbury (2011) study were the negative emotions related to paternal absence, the loss of physical and emotional paternal support, and the restriction to their lifestyle and activities. There was some evidence that children whose fathers worked extended rosters (away from home for more than 4 weeks at a time) were more likely to have emotional-behavioural functioning in the abnormal range, but the sample was very small (5 children).

FIFO families comprised 11% of the sample in a survey of 810 Western Australian parents of school-aged children (Anglicare WA, 2013). Children in FIFO and single parent families were more likely to have experienced bullying (both online and offline), express concern about body image, and demand money, technology and clothes from parents compared to other types of families. Children

in FIFO families felt more pressure to succeed in academics and extra-curricular activities than children from other families, and FIFO parents were more likely to offer rewards and treats.

## Implications of review findings

In this next section implications of the findings of this review are presented. Implications are outlined for policy makers and practitioners in the area of family relationships, research, current or potential FIFO families, and mining organisations themselves.

### Implications for policy and practice

There is a clear need for those engaged in policy and practice related to family and relationship support to be aware of the challenges faced by FIFO workers and their families and to be able to respond appropriately to their unique needs. Some organisations already offer services to support FIFO families and a number of resources are outlined in the resources section at the end of this paper.

The national mental health organisation beyondblue is trialling an innovative mental health service model, which will provide psychological support services to people with mild to moderate depression and anxiety. The universal program, entitled *NewAccess*, is designed to reach people who currently have difficulty accessing existing services, including FIFO workers. The model includes guided self-help mental health programs (either online or via “bibliotherapy”<sup>8</sup>), un-guided self-help information, as well as referrals to community and welfare services and to local social and community groups. In addition, the Australian Government Department of Health, as part of its *Delivering Mental Health Reform* package, is funding beyondblue via *Taking Action to Tackle Suicide*, which includes initiatives to:

- increase community awareness and health promotion;
- increase access to the information helpline;
- expand access to workplace based programs; and
- support mental health workplace training, research and advocacy.

These initiatives may form the basis of responses from family and relationship services. Programs that reduce stigma and address mental health needs would provide support groups for FIFO families in both source and host communities, for families considering the FIFO lifestyle and for ongoing post-employment support services. These suggestions are supported by the Lifeline WA report (Henry et al., 2013), which also calls for further targeting within the FIFO community for groups such as divorced workers.

Courses that assist FIFO workers and partners to manage the transition between work and home and include parenting and relational and lifestyle skills, particularly for new employees and their families, may be beneficial (Gent, 2004). Sibbel (2010) also recommends the further development of psychosocial and material resources for individuals and families to reduce role demand and benefit relationships and wellbeing. She acknowledges, however, that the willingness or desire of families to use these supports is likely to vary according to individual and family needs (A. Sibbel, personal communication, June 14, 2013).

One of the challenges is not only providing these services but encouraging workers to make use of them, rejecting the stigma and peer pressure to “tough it out”. As such, part of the policy response could include a public awareness campaign, including, for example, workplace seminars, posters and a social media campaign using case studies and details of resources available.

8 A carefully selected reading program designed to improve mental health problems.

The limitations of national data on FIFO/DIDO work practices, as mentioned in a previous section, may be relevant to governmental reviews on health and other services, for example the proposed National Mental Health Commission review of current mental health services and programs.

## Implications for research

As outlined in this paper, there are many factors that determine the success or otherwise of a family's adaptation to the FIFO lifestyle. A significant investment is needed in primary research to develop a better understanding of the complexities that determine outcomes for FIFO families. Aspects of the FIFO lifestyle that could be further examined in relation to outcomes for families and children include:

- the impact of different roster cycles;
- the characteristics of families who choose, and adapt successfully or not successfully, to the FIFO lifestyle;
- reasons for entering the FIFO lifestyle and the impact of these on outcomes (e.g., economic reward vs appeal of the lifestyle);
- age of children at entrance to and exit from FIFO lifestyle;
- nature or quality of child/ren's attachments with absent/present parent;
- partner's expectations of the FIFO lifestyle, and whether these have been met;
- the impact of access to various types of communication, and the frequency of contact;
- how mental health problems may arise, how they may vary over time, and how to address any reluctance to seek help;
- age and employment lifecycle stage of FIFO worker, and lifecycle stage of the family;
- role of at-home partner in buffering effects of FIFO lifestyle for children;
- mediating effects of any available support services (e.g., Mining Family Matters) and/or help-seeking behaviours; and
- availability of support networks in communities for the at-home partner.

The pathways to outcomes would be best measured longitudinally over a number of years, ideally with baseline measures taken prior to commencement of FIFO employment.

Further research with control or comparison groups and research that is multi-level—engaging with the FIFO worker (both male and female), the at-home parent and children at different developmental stages and ages—is needed. A research focus on issues particular to the Aboriginal and Torres Strait Islander FIFO workforce would be a welcome addition, for example, the effects of taking workers away from country, family groups and support networks.

There are a number of studies currently underway that will contribute to the evidence base:

- Murdoch University is conducting research on FIFO workers and partners in Australia, investigating a range of different aspects of the FIFO lifestyle. Results from this study are expected late 2013.
- The Working Parents Research Project, based at the University of Queensland's Parenting and Family Support Centre, aims to investigate the impact FIFO and DIDO work has on children and families in Queensland. Results from this project are due in early 2014.
- A lifestyle survey of FIFO/DIDO employees and their partners is underway at the Central Queensland University, which will examine work and roster satisfaction, relationship satisfaction, family dynamics, and perceptions of family functioning.
- Centacare in Townsville is also conducting a quantitative survey of 30 FIFO employees and their partners and 11 local stakeholders.

## Implications for current or potential FIFO families

The key message for families who are considering the FIFO lifestyle that arises from the literature is the importance of thoroughly reviewing the benefits and challenges of the lifestyle (see Box 1), what the impact is likely to be on individuals within the family, and impacts on the family as a whole. The FIFO lifestyle does not suit everyone. The Inquiry found it was helpful if the at-home partner was supportive and independent of the FIFO worker and that, in general, unmarried couples or families with teenage children fared best in a FIFO arrangement.

### Box 1: Benefits and challenges related to FIFO employment

The literature clearly indicates that there is a unique set of benefits and challenges to parental FIFO employment.

Documented benefits of a FIFO lifestyle include:

- high income;
- independence for worker and partner;
- quality, extended time at home;
- ability to schedule appointments at home during leave;
- meeting new people;
- travelling to new locations;
- clear separation between personal and work life;
- ability to maintain regular exercise on the job; and
- access to healthy foods on site.

Challenges related to a FIFO lifestyle include:

- emotional and functional adjustment to leaving and returning (including roles undertaken);
- loneliness and isolation;
- hopelessness;
- on site physical exertion and fatigue;
- reduced communication;
- absence at family events;
- difficulty for at-home parent to undertake work or study;
- reduced social opportunities; and
- the FIFO worker having restricted capacity to get home in a family emergency

Sources: Clifford, 2009; Fresle, 2010; Gallegos, 2006; Henry et al., 2013; Sibbel et al. 2006.

If the decision is made to take a FIFO job, then families need to be prepared by finding out about the potential work site and the resources and supports available for FIFO workers and their families both at the work site and in the home environment. Box 2 outlines some of the key considerations in supporting families through the transition to the FIFO lifestyle. Families need assistance to develop strategies to minimise the disruption to the family and to maximise the communication. By anticipating stressful periods and engaging pre-determined strategies, stress, anxiety and depression may be minimised. Families should also be aware of pressure points, such as the absence of the FIFO worker at special occasions and the transition periods between work and home.

### Box 2: What can be done to improve family transition to FIFO lifestyle?

The more informed couples and families can be on what to expect when entering into a FIFO lifestyle, the more prepared they can be to deal with issues as they begin to arise. Sibbel et al., (2006) provided a number of key points to consider in the recruitment process, including:

- Provide adequate and accessible information about the actual site and position being offered.
- Include relevant questions about implications of FIFO employment during the interview process.
- Include the applicant's partner in the process where possible.
- Investigate the applicant's ability to adapt to living in a remote location, with the possibility of a site visit prior to final acceptance of a job role.

## Implications for mining organisations

According to the studies included in this review, organisations that employ a FIFO workforce and provide flexibility with rosters, low work-to-home ratios, access to timely and private communication options and good accommodation and facilities will have happier FIFO workers and families. From an organisational perspective this would reduce turnover and increase productivity.

A major challenge for many organisations is to avoid a culture that stigmatises help-seeking behaviours and instead promotes and provides access to counselling and support groups and actively encourage employees to participate.

The studies in our review included several specific strategies that organisations with a FIFO workforce could consider, including:

- The development of a parenting resource including communication strategies, how to manage children's behaviour, and how to facilitate positive interactions (Gallegos, 2005, cited in Henry et al., 2013).
- A Tool Kit for Surviving Fly-in/Fly-out Relationships was developed and evaluated by Watts (2004). The Tool Kit was adapted from a brochure developed by Lifeline and the Centre for Rural and Remote Health that focused on Surviving the Drought, and redrafted after consultation with local mental health professionals within the region. The researchers then sent the Tool Kit to contacts on the research database to evaluate its usefulness. The evaluation found the Tool Kit to be generally helpful and accessible (Watts, 2004).
- Specific induction training for issues such as transitioning between work and home (Gent, 2004) and pre-employment preparedness and awareness to facilitate informed choice (Hoath & Haslam McKenzie, 2013).
- The New Access and Taking Action to Tackle Suicide resources offered by beyondblue mentioned above should also be considered.

These resources could be provided through pre-employment packs, inductions or industry websites. It was also suggested that a mentoring scheme in which FIFO families assist others with social activities and provide assistance with techniques for stress and fatigue management could greatly benefit FIFO families (Gallegos, 2005, cited in Henry et al., 2013).

## Limitations

A clear limitation of this research review is the lack of available evidence that specifically examines the impact of FIFO employment on children and family relationships. This review has highlighted the multiple factors related to FIFO employment that potentially influence outcomes for family relationships and children, but few of these have been studied in any great depth. Variations of work arrangements such as DIDO are virtually non-existent in their own right in the literature.

There are a number of research projects currently being undertaken that will continue to clarify the associations between work, family, community and individual level factors and the impact of the FIFO lifestyle. Considering the evident trend for FIFO work to increase, and the complex interactions of factors related to the lifestyle and outcomes for children and families, investment in further research is required. A mixed methods approach to research will ensure that a comprehensive picture of the FIFO experience will be developed. Research results such as these will be of significant value to developing effective supports and responses to FIFO families who are experiencing difficulties, or for preventive or early interventions.

The absence of longitudinal studies examining FIFO work practices, as mentioned above, significantly limits our understanding of the impact of pre-existing factors for FIFO families and their influence on outcomes. The quality of the couple relationship, their approaches to and responsibilities for parenting, and child characteristics/behaviours, as well as economic, social and support factors, are likely to play a role in the FIFO experience and effects on children and families. Some variables, such as whether the at-home partner is in paid work or not, may impact on both the quality of the couple relationship and the impact on children. The establishment of baseline norms would allow measures of family functioning in order to provide a comparison or control.

In terms of the sample population for existing studies, paternal FIFO employment is far more likely to be examined than maternal FIFO employment. This may be due to the current low numbers of women who are employed in FIFO arrangements and have children at home. Finally, it is possible that respondents who agree to participate in studies are longer term FIFO families who are more likely to have adapted to the FIFO lifestyle (as noted by Sibbel, 2010). Therefore those participating are more likely to feel positive about the FIFO lifestyle, potentially limiting the extent to which results can be generalised.

## Summary

This review found that there is a lack of empirical evidence to indicate that specific engagement in FIFO employment has a universal direct effect on children or family relationships. The unique conditions of FIFO employment, however, could impact on families depending on the circumstances of the FIFO workplace and the characteristics of individual families, as outlined in the above sections.

These unique conditions explain why the literature often refers to FIFO as a lifestyle rather than just a job. The ability of family members to enjoy the benefits and manage the challenges, as outlined earlier in Box 1, can significantly influence the effect of FIFO on children and family relationships. Resilience in the transition to FIFO employment depends on a number of factors, including: the ability of family members to adapt to the changed conditions of a FIFO lifestyle; the at-home partner's local support network; and the support and flexibility offered by the FIFO worker's employer (see Fresle, 2010; Gallegos, 2006; Gent, 2004; Sibbel, 2010). What is unclear from the literature to date, however, is whether families enter the FIFO lifestyle with existing risk and/or protective factors that mediate the impact of the FIFO experience.

A distinction needs to be drawn between the potential of the unique FIFO lifestyle to have negative effects for children and family relationships and the actual, direct effects, whether positive or negative. The situation for each FIFO family is different according to the organisational and family and individual contexts described above, and the challenges associated with a FIFO lifestyle can often be offset or managed successfully. The fact that most studies found that FIFO employees and partners were generally no more likely to have high stress levels, poor relationship quality or poor health behaviours than daily commute or community samples indicates that many or most families are able to cope with the unique challenges of FIFO employment (Bradbury, 2011; Clifford, 2009; Kaczmarek & Sibbel, 2008; Sibbel, 2010; Taylor & Simmonds, 2009).

Gent (2004) found that when FIFO workers like their jobs and their relationship is going well, they are more likely to adapt to a FIFO lifestyle. This could be interpreted as when FIFO workers and their families are feeling strong and have resources to draw on, then the challenges of FIFO can be met without detriment to families. In a submission to the Inquiry by beyondblue (2012), the organisation suggested that while there are unique issues, parental engagement in FIFO employment does not present any significant psychological impacts on children. However, as the Inquiry noted, there was not enough evidence to definitively support this claim. While this is also the conclusion drawn by this review, the analysis here more clearly identifies the existing evidence and evidence gaps.

## Resources

**Centacare** runs a workshop that aims to provide individuals, couples and families with the tools to build resilience to enable them to successfully navigate the unique challenges of the FIFO/DIDO lifestyle. Go to *Centacare – Education and Life Skills Programs* for more details <[www.centacarenq.org.au/our\\_services/relationship\\_and\\_family\\_support/early\\_intervention\\_service.php](http://www.centacarenq.org.au/our_services/relationship_and_family_support/early_intervention_service.php)>.

The popular RU OK? program has been expanded to **RU OK? Afield** which includes a list of tools specifically designed to assist managers and staff in FIFO/DIDO professions. For more details, see *RU OK? Afield* <[www.ruokday.com/resources-for-you/r-u-ok-afield/](http://www.ruokday.com/resources-for-you/r-u-ok-afield/)>.

**Relationships Australia WA** offers an evening seminar for couples considering, or in the early stages of the FIFO workforce. See *Fly In Fly Out* for information <[www.wa.relationships.com.au/courses-and-seminars/all-courses-and-seminars/Fly%20In%20Fly%20Out.aspx](http://www.wa.relationships.com.au/courses-and-seminars/all-courses-and-seminars/Fly%20In%20Fly%20Out.aspx)>.

**Centacare Townsville**, in Far North Queensland, has conducted a small survey (Washington, 2012) of FIFO workers and partners to inform their services—which includes a new course, “Digging Deep”, to provide support and guidance to FIFO/DIDO workers and their families. For more details see *Digging Deep: A Proactive Approach to Building Resilience* <[www.centacarenq.org.au/documents/Digging%20Deep%20Brochure.pdf](http://www.centacarenq.org.au/documents/Digging%20Deep%20Brochure.pdf)>.

**Mining Family Matters**, a web-based organisation sponsored by a range of oil and gas companies, provides support via an online community, e-newsletters, chat forums, publications such as the *Survival Guide for Mining Families* <[www.miningfm.com.au/contact-us/survival-guide.html](http://www.miningfm.com.au/contact-us/survival-guide.html)> and *Working Away: A Survival Guide* <[www.miningfm.com.au/contact-us/working-away-guide.html](http://www.miningfm.com.au/contact-us/working-away-guide.html)>, as well as access to experts in areas such as psychology, long-term FIFO arrangements and health.

**FIFO Families** is a web-based organisation sponsored by a range of industries that offers support to FIFO Families. The organisation provides opportunities for support and connection with other FIFO families through a range of resources including links to chat rooms, forums, seminars and e-newsletters. Links to events run by local FIFO Family groups situated across Australia are also provided. Visit FIFO Families online at <[www.fifofamilies.com.au](http://www.fifofamilies.com.au)>.

## References

- Anglicare WA. (2013). *The parenting perceptions report 2013: A survey of Western Australian parents of school age children*. East Perth: Anglicare WA.
- Australian Bureau of Statistics. (2007). *National Survey of Mental Health and Wellbeing: Summary of results 2007* (Cat No. 4326.0). Canberra: ABS.
- Australian Industrial Relations Commission. (2010). *Mining industry award 2010*. Retrieved from <[www.fwc.gov.au/documents/modern\\_awards/award/ma000011/default.htm](http://www.fwc.gov.au/documents/modern_awards/award/ma000011/default.htm)>
- Australian Mines and Metals Association. (2009). *Submission to the Australian Industrial Relations Commission regarding an application to vary the Mining Industry Award 2010*. Retrieved from <[www.amma.org.au/assets/images/stories/submissions/20090807%20submission%20application%20vary%20mining%20industry%20award%202010.pdf](http://www.amma.org.au/assets/images/stories/submissions/20090807%20submission%20application%20vary%20mining%20industry%20award%202010.pdf)>.
- Australian Securities Exchange. (2013). *Metals and mining sector profile*. Sydney: ASX. Retrieved from <[www.asx.com.au/documents/resources/asx\\_metals\\_and\\_mining.pdf](http://www.asx.com.au/documents/resources/asx_metals_and_mining.pdf)>.
- Bailey-Kruger, A., (2012). *The psychological wellbeing of women operating mining machinery in a fly-in fly-out capacity*. (Unpublished Masters Thesis). Edith Cowan University, W.A.
- Beach, R., Brereton, D., & Cliff, D. (2003). *Workforce turnover in FIFO mining operations in Australia: An exploratory study*. Brisbane: Centre for Social Responsibility in Mining & Minerals Industry Safety and Health Centre.

- beyondblue. (2012). *Submission to the inquiry into the use of 'fly-in, fly-out' (FIFO) workforce practices in regional Australia*. Melbourne: beyondblue. Retrieved from <www.aph.gov.au/committee-ra-fifodido-sub-228.pdf>.
- Bradbury, G.S. (2011). *Children and the fly-in/fly-out lifestyle: Employment-related paternal absence and the implications for children* (Doctoral dissertation). Retrieved from <espace.library.curtin.edu.au/R?func=dbin-jump-full&local\_base=gen01-era02&object\_id=169725>
- Carrington, K., & Pereira, M. (2011). Assessing the social impacts of the resources boom on rural communities. *Rural Society*, 21, 2–20.
- Chamber of Minerals and Energy of Western Australia. (2011). *Submission to the Standing Committee on Regional Australia's inquiry into the use of 'fly-in, fly-out' (FIFO) and 'drive-in, drive-out' (DIDO) workforce practices in regional Australia* (Submission No. 99, House Standing Committee on Regional Australia). Retrieved from <www.aph.gov.au/parliamentary\_business/committees/house\_of\_representatives\_committees?url=ra/fifodido/subs/sub99.pdf>.
- Chapman, A. (2013). *Away from coalface, how do families cope?* (Honours thesis [in progress] CQUniversity, Rockhampton). Retrieved from <www.cqu.edu.au/cquinews/stories/research-category/away-from-coalface,-how-do-families-cope>.
- Clifford, S. (2009). *The effects of fly-in/fly-out commute arrangements and extended working hours on the stress, lifestyle, relationship and health characteristics of Western Australian mining employees and their partners: Report of research findings* (Doctoral Dissertation, The University of Western Australia, Perth). Retrieved from <www.ihs.uwa.edu.au/research/mining>
- Commission for Occupational Safety and Health (2006). *Code of practice: Working hours 2006*. Perth: Department of Commerce, WA. Retrieved from <www.commerce.wa.gov.au/worksafe/PDF/Codes\_of\_Practice/COPworkinghours.pdf>
- Commonwealth of Australia. (2013). *Cancer of the bush or salvation for our cities? Fly-in, fly-out and drive-in, drive-out workforce practices in Regional Australia*. House of Representatives Standing Committee on Regional Australia. Retrieved from <www.aph.gov.au/Parliamentary\_Business/Committees/House\_of\_Representatives\_Committees?url=ra/fifodido/tor.htm>
- Denniss, R., & Baker, D. (2012). *An unhealthy obsession? The impact of work hours and workplace culture on Australia's health* (Institute Paper No. 11). Canberra: The Australia Institute. Retrieved from <www.tai.org.au/index.php?q=node/19&pubid=1068&act=display>
- Di Milia, L., & Bowden, B. (2007). Unanticipated safety outcomes: shift work and drive-in, drive-out workforce in Queensland's Bowen Basin. *Asia Pacific Journal of Human Resources*, 45, 100–112.
- Fresle, N., (2010). *The role of social support systems in reducing loneliness and social isolation for parents whose partner work fly-in/fly-out* (Unpublished honours thesis). Edith Cowan University, Perth, W.A.
- Gallegos, D. (2006). "Aeroplanes always come back": Fly-in fly-out employment: managing the parenting transitions. Kensington: Centre for Social and Community Research.
- Gent, V.M. (2004). *The impact of fly-in/fly-out work on wellbeing and work-life satisfaction*, (Published Masters Thesis). Murdoch University, Perth. Retrieved from <www.ifap.asn.au/Documents/News%20and%20Media/FIFO\_Report\_2004.pdf >.
- Greer, L., & Stokes, K. (2012). *Divorce and separation in the Australian mining sector: Is it what we expect?* TASA 2012 conference proceedings: The annual conference of The Australian Sociological Association 28 Nov – 1 Dec, The University of Newcastle.
- Henry, P., Hamilton, K., Watson, S., & McDonald, M. (2013). *FIFO/DIDO mental health: Research report 2013*. Perth: Lifeline WA..
- Hoath, A., & Haslam McKenzie, F. (2013). *The socio-economic impacts of long distance commuting on source communities*. Perth: Co-operative Research Centre for Remote Economic Participation and Curtin Graduate School of Business. Retrieved from <www.crc-rep.com.au/resource/TheSocio-economicImpactsLDConSourceCommunities.pdf>.
- Hutchins, K., Di Ciera H., & Shea, T. (2011). Employee attraction and retention in the Australian resources sector. *Journal of Industrial Relations*, 53, 83–101.
- Jancey, J., Croager, E., & Cotton, R. (2012). *Report on the 2012 FIFO Forum*. Perth: Public Health Association, Western Australia branch. Retrieved from <www.phaa.net.au/documents/130130PHAA\_FIFO%20Forum%20report\_2012.pdf>.
- Joyce, S., Tomlin, S., Somerford, P., & Weeramanthri, T. (2013). Health behaviours and outcomes associated with fly-in fly-out and shift workers in Western Australia. *Internal Medicine Journal*, 43, 440–444.
- Kaczmarek, E. & Sibbel, A. (2008). The psychosocial wellbeing of children from Australian military and fly-in/fly-out mining families. *Community, Work & Family*, 11, 297–312.
- Lawrence, A. (2012). Electronic documents in a print world: Grey literature and the Internet. *Media International Australia*, 143, 122–131.
- Makeham, M. (2011). *Part 1 - Camp life can be bad for your health ... a better model of resource project accommodation* (Submission No. 44, House Standing Committee on Regional Australia). Retrieved from <www.aph.gov.au/parliamentary\_business/committees/house\_of\_representatives\_committees?url=ra/fifodido/subs/sub44.pdf>
- Mining Family Matters. (2013). *Mining family matters survival guide and working away: A survival guide for families*. Retrieved from <www.miningfm.com.au/contact-us/survival-guide.html and http://www.miningfm.com.au/contact-us/working-away-guide.html>.
- National Health and Medical Research Council. (2009). *Australian guidelines to reduce risk from drinking alcohol*. Canberra: NHMRC. Retrieved from <www.nhmrc.gov.au/guidelines/publications/ds10>.
- Pini, B., & Mayes, R. (2012). Gender, emotions and fly-in fly-out work. *Australian Journal of Social Issues*, 47, 71–86.
- Pirotta, J. (2009). An exploration of the experiences of women who FIFO. *The Australian Community Psychologist*, 21, 37–51
- Queensland Office of Economic and Statistical Research. (2012a). *Bowen Basin population report, 2012*. Retrieved from <www.oesr.qld.gov.au/products/publications/bowen-basin-pop-report/index.php>.
- Queensland Office of Economic and Statistical Research. (2012b). *Surat Basin population report, 2012*. Retrieved from <www.oesr.qld.gov.au/products/publications/surat-basin-pop-report/index.php>.
- Sibbel, A. (2010). *Living FIFO: The experiences and psychosocial wellbeing of Western Australian fly-in/fly-out employees and partners* (Unpublished doctoral dissertation). Perth: Edith Cowan University.
- Sibbel, A., Sibbel, J., & Goh, K. (2006, October). *Fly-in fly-out operations – strategies for managing employee wellbeing*. Paper presented to the International Mine Management Conference Melbourne, Victoria.
- Skinner, H., Steinhauer, P., & Sitarenios, G. (2000). Family Assessment Measure (FAM) and process model of family functioning. *Journal of Family Therapy*, 22(2), 190–210.
- Solomon, F., Katz, E., & Lovell, R. (2008). Social dimensions of mining: Research, policy and practice challenges for the minerals industry. *Australia Resource Policy*, 33, 142–149.

- Storey, K. (2001). Fly-in/fly-out and fly-over: Mining and regional development in Western Australia. *Australian Geographer*, 32(2), 133–148.
- Storey, K. (2009). The evolution of commute work in Canada and Australia. In G. Dzida, F. Stammler, G. Eilmsteiner-Saxinger, M. Pavlova, T. Vakhrusheva, Z. Borlakova, & M. Noureiva (Eds.), *Biography, shift-labour and socialisation in a northern industrial city – the far north: Particularities of labour and human socialisation*. Proceedings of the International Conference in Novy Urengoy, Russia, 4–6 December 2008 (pp. 23–32). Retrieved from <arcticcentre.ulapland.fi/docs/NURbook\_2ed\_100421\_final.pdf>.
- Taylor, J. C., & Simmonds, J. G. (2009). Family stress and coping in the fly-in, fly-out workforce. *The Australian Community Psychologist*, 21, 23–36.
- Taylor, R., Morrice, K., Clark, D., & McCann, K. (1985). The psycho-social consequences of intermittent husband absence: An epidemiological study. *Social Science & Medicine*, 20(9), 877–885.
- Torkington, A. M., Larkins, S., & Gupta, T. S. (2011). The psychosocial impacts of fly-in fly-out and drive-in drive-out mining on mining employees: A qualitative study. *The Australian Journal of Rural Health*, 19, 135–141.
- Urban Land Development Authority (ULDA). (2012). *Non resident worker accommodation – guideline for locating and designing high quality accommodation facilities* (ULDA Guideline No. 3). Brisbane: ULDA, Qld.
- URS Australia. (2012). *Workforce accommodation arrangements in the Queensland resources sector – workforce survey*. Brisbane: Queensland Resources Council.
- Voysey, W. (2012). *Satisfaction with a fly-in/fly-out (FIFO) lifestyle: Is it related to rosters, children and support resources utilised by Australian employees and partners and does it impact on relationship quality and stress?* (Unpublished honours thesis) Murdoch University, W.A.
- Washington, P. (2012). *Fly in and fly out: Practical solutions for working families*. Centacare: Townsville and Rockhampton.
- Watts, J. (2004). *Best of both worlds: Seeking a sustainable regional employment solution fly in-fly out operations in the Pilbara*. Pilbara Regional Council, W.A.

**Veronica Meredith** is a Research Officer and **Elly Robinson** is Manager of the Child Family Community Australia information exchange at the Australian Institute of Family Studies. At the time of writing, **Penelope Rush** was a Senior Research Officer at the Australian Institute of Family Studies.

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## Appendix A

### Literature inclusions: FIFO/DIDO employment and the effects on children and family relationships

<[www.aifs.gov.au/cfca/workings/pubs/papers/cfca19/09.html](http://www.aifs.gov.au/cfca/workings/pubs/papers/cfca19/09.html)>



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Australian Institute of Family Studies  
Level 20, 485 La Trobe Street  
Melbourne VIC 3000 Australia  
Phone: (03) 9214 7888 Fax: (03) 9214 7839  
Internet: <[www.aifs.gov.au](http://www.aifs.gov.au)>

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