

Knowledge Package

Communities and transition



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Knowledge pack**Communities and transition****Introduction**

Much of the literature on low carbon transition focuses on the physical, economic and environmental aspects of coal mine closure. The social, cultural and psychological effects that structural transition has on coal mining communities are often neglected, even though research shows that planning for the post-transition needs of local communities and involving local stakeholders in the design and implementation of mine closure plans, can minimise disruption to communities and build better opportunities for economic diversification.

Some resources within this knowledge pack provide case studies, with examples from both the global north (United Kingdom, Germany) and the global south (South Africa, Australia, Colombia) describing a range of strategies and approaches to communities and transition. Other articles focus on literature review, offering overviews of social and community assistance measures. They provide insights into pertinent community issues such as housing, infrastructure, cultural heritage, stakeholder engagement and governance. They also shed light on the distributional impacts of mining transition and the effects it has on different community members (men and women, old and young, indigenous people, and so on). Resources focussing on attachment to place, the strategic framing of transitions and anchor institutions contribute to a broadening of the policy considerations applicable to regional coal (and broader structural) transition.

The knowledge pack relates to thematic Pillar 2 of the World Bank's 'Just Transition for All' three-by-three matrix: People and Communities. The literature detailed below is relevant to all three phases of support: Pre-closure Planning, Closure, and Regional Transition and has evident linkages with the knowledge pack on "Stakeholder engagement".

Abstracts

Aung, May Thazin and Strambo, Claudia. 2020. Distributional impacts of mining transitions: learning from the past. SEI working paper. Stockholm: Stockholm Environment Institute.

This paper was developed to inform energy transition stakeholders about the gender- and age-related impacts of mine closure. The significant socio-economic changes associated with the transition from fossil fuels to renewables affect social groups differently, potentially leading to ‘winners and losers’ in the energy transition. The authors systematically map and examine historical documentation of distributional impacts of historical mine closures, and analyse the financial, psychological and labour-related effects through several lenses; at the scale of the individual, household, region and country, as well as by income, age, race, ethnicity, place of origin, gender and disability.

The paper explores the effectiveness and limitations of past policy responses and initiatives which have considered distributional effects. The conclusions are that two core areas of study prevail; one on the gender roles in mine decline and closure, and one on the impacts of closure on youth (especially in less developed countries). Furthermore, they emphasise the importance of gaining a clearer understanding of the impacts of mine downscaling on marginalised and disadvantaged groups, in order to develop holistic policies to reduce inequalities and close the gap between the ‘winners and losers’ in transition.

Key terms: distributional impacts; gender impacts; youth impacts

Strambo, Claudia, Aung, May Thazin and Atteridge, Aaron. 2019. Navigating coal mining closure and societal change: learning from past cases of mining decline. SEI working paper. Stockholm: Stockholm Environment Institute.

In the light of the rapid decline in coal production and subsequent closure of mines, this paper analyses the existing knowledge base on the impacts of energy transition on mine workers, mining communities and producing countries. The authors support the need for a ‘just’ transition for all and systematically map relevant literature on declining extractive-based economies to better understand the causes of decline and the economic, social and political repercussions of mine closures both at national and subnational scales. The paper assesses the societal responses to closure witnessed from different actor groups (international institutions, governments, private sector, civil society, and households/miners) and identifies that the responses by government (national, regional, and local) and the private sector are the most

analysed to date. While the former analysed responses focus on financial and institutional support to workers and the role of research and infrastructure, the emphasis regarding the private sector relates to the diversification of economic activities, participation in research and funding schemes and the reduction of the workforce.

In conclusion, lessons for communities and governments in areas where coal production is still active, but which anticipate transition, include involving and coordinating closure with a wide range of public authorities across sectors and levels, establishing realistic goals, and strengthening local capacities to anticipate and mitigate the broad effects from closure or coal extraction downscaling.

Key terms: societal response; systematic mapping; social impact

Mohr, Kerstin, Castro, Silvia Rojas, Meyer, Katrhin, Groot, Ana María Mahecha, Niño, Natalia Daza, Vallejo, María Laura Rojas. 2020. *Gender Response Climate Policy. A case study of the Colombian Coal Sector. Polis 180 and Transforma.*

This paper is an in-depth analysis of a rather unexplored topic, the climate–gender nexus. It provides evidence that a gender-responsive climate policy can lead to a more gender-equal and socially just society and, simultaneously, to better and more effective climate policies. Evidence from the past demonstrates that equal representation of men and women in national parliaments produced more ambitious climate policies and more effective interventions to reduce greenhouse gas emissions.

After conceptualising gender-responsive climate policy and developing four main arguments to support the inclusion of gender perspectives into policy (sustainability, vulnerability, expertise, and normative argument) the authors apply their knowledge to a case study: the Colombian coal sector. Through policy analysis, interviews and actor mapping, they analyse gender narratives in existing climate policy and explore the gender perspectives and shortcomings in the Colombian mining-energy policy. Subsequently, they explain how a gender-responsive approach to coal phase-out can benefit gender equality in this male-dominated sector and lead to more effective mitigation actions needed to balance the gradual decline in coal production and exports of this significant coal producing nation.

In light of the urgency of the climate crisis and global decline in coal extraction, the authors explain the applicability of their findings beyond the Colombian case and provide valuable policy recommendations for other regions that want to design gender-responsive climate policies.

Key terms: case study, climate-gender nexus; gender-responsive (climate) policy; gender equality

Fothergill, Steve. 2017. *Coal Transition in the United Kingdom, IDDRI and Climate Strategies. Report of Project “Coal Transitions: Research and Dialogue on the Future of Coal”.*

This historical UK case study looks at the approaches to and implications of coal phase-out for coal communities since the 1980s. Even though there was no formal commitment by the UK government for the phase-out of coal for electricity generation until 2015, the paper contends that structural transition and the related transformation of coal communities has progressed in a relatively unplanned way for several decades, with differing degrees of success in regard to labour market and social issues.

The research takes a close look at the impacts of transition in terms of job losses and redundancies and at the social assistance measures taken to moderate their impacts. Measures are synthesised along three broad categories—backward-looking compensation measures, forward-looking yet narrow structural adjustment assistance, and forward-looking broad adaptive support—for different societal groups—consumers/households, workers, communities, and corporations. The main conclusion is that a lack of coherence between the redundancy payments, welfare benefits, early pensions and other social assistance measures have left many coal mining areas at a disadvantage. Insufficient efforts have been made to replace the lost jobs in the mining industry which still cause noticeable differences in the levels of employment and income levels as compared to other parts of the UK. Nevertheless, the case study teaches important lessons to other countries undergoing energy transition and shows that rebuilding the economies of coal mining communities takes, a sound strategy, coordinated policies and, most of all, time.

Key terms: social welfare; social assistance; community effects; case study

Bainton, N.A. and Holcombe, S. 2018. *“The Social Aspects of Mine Closure: A Global Literature Review”.* Centre for Social Responsibility in Mining (CSRMI), Sustainable Minerals Institute (SMI). Brisbane: The University of Queensland.

This paper addresses a number of the most significant social challenges associated with mine closure; the impoverishment of local economies, and resulting out-migration, as a result of local economic collapse, especially in a mono-industrial context. The review is based on publicly available literature on the social aspects of mine closure along two broad aspects: ‘process and procedural themes’ (including the topics of integration and sustainability, stakeholder engagement, baselines, risk and impact assessments, and governance processes) and ‘topical

issues' (covering housing, infrastructure and service provision, economic linkages, indigenous engagement, local-level agreements, and cultural heritage).

Key findings revolve around the external and internal barriers that prevent mining companies from managing the social aspects of mine closure. While internal barriers are those situated within a company, the external barriers are those that exist at the intersection of mining companies and other parties, i.e. the lack of a coordinated vision. These barriers are mutually reinforcing. The authors determine the need for active engagement with stakeholders to overcome these barriers and bring future research priorities to attention. To them, it is most urgent to better understand mine closure liabilities at the different governmental levels and to present the effects of policies and regulations that have informed social aspects in the closure process.

Key terms: social impacts; mine closure liability;

Weller, Sally. 2018. *Just transition? Strategic framing and the challenges facing coal dependent communities. Environment and Planning C: Politics and Space* 37:2. 298-316.

This article focuses on the challenges of implementing 'just transition' policy in the coal-dependent Latrobe Valley (Australia). Through interviews with politicians, policymakers and interest groups, it examines how policy interventions from 2011-2013 intended to compensate for structural imbalances instigated by the closure of several coal-fired power stations materialised, but at the expense of the mining communities.

The paper contends that the multilevel governance committee established to plan for the transition prevented a broad range of stakeholders from participating in the process and gave way to a purely market-driven transition process. In the author's opinion, the transition process was ill-managed. It deployed strategic reframing – generally defined as a sense-making endeavour to help actors understand a problem by reducing its complexity to a small number of factors – into several dimensions: issue framing (defining the issue as a 'transition'); place framing (creating a specific region as the arena of policy); and scale framing (defining the scale of intervention as 'regional'). The paper then explains how these frames were used to side-line local interests, leading to the distribution of funding to communities that were not significantly affected by the closure of power stations, and to exacerbated feelings of injustice among members of the mining community. As such, the case study presents a bad practice example of community engagement and exposes the possible shortcomings of strategic framing in transition policy, and therefore contributes to a better understanding of planning for the social dimensions of transition.

Key terms: Strategic framing; place framing; stakeholder engagement, case study

Lochner, Marais, Holle Wlokas, Jiska de Groot, Noleen Dube and Andreas Scheba. 2018. *Renewable energy and local development: Seven lessons from the mining industry*. *Development Southern Africa* 35:1. 24-38.

This paper assesses the local implications of establishing renewable energy projects in South Africa, drawing from lessons learned in the mining industry. As with mines, the operators of renewable energy plants need to engage with local communities in order to positively contribute to socio-economic development. Therefore, the authors outline seven lessons to be considered in the transformation and ongoing decarbonisation of the energy sectors: Managing the possible social disruptions of the community through place attachment; Understanding the complexities of heterogeneous communities; Creating responsive institutions and supporting good industry practice; Employing trained community practitioners to manage the risks of transition; Ensuring local planning capacity; Encouraging economic diversification in remote areas; and planning for the closure of projects.

The research recognises that energy projects can serve and strengthen local development, though caution needs to be taken when defining what a local community is, scoping its reach and establishing a relationship with affected people. The paper clearly articulates the need for capacity, patience and empathy when assisting communities undergoing transformation related to energy transition. As such, the paper adds to collective knowledge by equipping transition stakeholders, especially those with a focus on renewable energy, with pertinent lessons for managing local development.

Key terms: local development; remote locations, case study, community complexities

Schildt, Chris, and Victor Rubin. 2015. *Leveraging Anchor Institutions for Economic Inclusion*. Oakland: PolicyLink.

The term ‘anchor institution’ refers to any long-standing and prominent regional organisation, such as an established university. This short briefing provides a policymaker’s overview of why anchor institutions can be valuable partners in developing and implementing equitable regional economic development, and a pillar of stability for conflicted or disrupted communities. Though this briefing is based on anchor institutions in the USA, the defining characteristics of anchor institutions are universal. In particular, they garner community trust and can foster inclusion, safeguarding against ‘left behind’ communities in transition regions.

Four (non-mutually exclusive) strategies are presented, summarising key elements of interaction with anchors from a governance perspective. Regional authorities are advised to engage with anchor organisations, to use data to make the business case for anchors to support economic inclusion strategies, to define responsibilities, and to set goals. Given that anchor institutions are often either publicly owned or not-for-profit, they are less vulnerable to economic volatility (compared to businesses) and can have a stabilising economic influence on regional economies. In the long-term – i.e. phase 3 of the World Bank’s logical framework, Regional Transition – anchor institutions can also aid regional governments in monitoring transition progress.

Key terms: anchor institution; partnership building; inclusion

Pao-Yu Oei, Hanna Brauers, and Philipp Herpich. 2020. *Lessons from Germany’s hard coal mining phase-out: policies and transition from 1950 to 2018*. *Climate Policy* 20:8. 963-979. DOI: [10.1080/14693062.2019.1688636](https://doi.org/10.1080/14693062.2019.1688636)

This article compares the process of coal mining phase-out in two of Germany’s largest hard coal mining areas, the Ruhr area and Saarland, and the different policy instruments used in the past 60 years to guarantee a just transition. Although the article also focuses on the physical and economic aspects of mine and power plant closure, it sheds further light on the social impacts of coal phase-out on the communities living in the Ruhr area and Saarland. The authors use economic, social, and geographical indicators developed within three interdisciplinary research projects to evaluate the success of the measures implemented.

The article emphasises that social policies play a key role in ensuring a just and timely transition, far beyond the replacement of mining jobs and the provision of labour opportunities in alternative industries. It is also important to communicate phase-out plans clearly and early to local communities to minimise disruption and misunderstanding amongst miners and their families. It is also noted that the involvement of a range of socio-economic actors, including community stakeholders, in the design and implementation of local strategies enables identification of locally adapted solutions and promotes a higher degree of acceptance in the transition process and related structural change.

Key terms: just transition; structural policy, case study

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GLOSSARY

Brownfield redevelopment refers to the process of site development – remediation, reclamation, rehabilitation and repurposing – to restore the physical, environmental, economic, and social/community aspects of a brownfield site.

Carbon neutrality refers to a state in which the activities of an individual, an organisation, a city or a country result in net-zero CO₂ emissions. For a given set of activities to be carbon neutral, either the activities themselves must have zero CO₂ emissions, or the same amount of CO₂ released by the activities must be permanently sequestered (i.e. removed). Carbon sequestration can be achieved by making use of a so-called natural carbon sink, which are the natural ecosystems (e.g. forests, soil, oceans) which have the ability to absorb more carbon than they emit. To date, no artificial carbon sinks are able to remove carbon from the atmosphere on the necessary scale. Offsetting emissions made in one sector by reducing them somewhere else through investment in renewable energy or energy efficiency could contribute to carbon neutrality.

Civil society refers to the wide array of non-governmental and not for profit organizations that have a presence in public life, express the interests and values of their members and others, based on ethical, cultural, political, environmental, scientific, religious, or philanthropic considerations.

Clean energy technologies refer to any processes, products or services that reduce negative environmental impacts of energy production through emissions reduction, energy efficiency improvements and sustainable use of resources (use of renewable and clean sources of energy such as geothermal, hydropower, solar, wind, and sustainable biomass).

Coal phase-out is the cessation of coal extraction and related utilisation activities, as part of a broader fossil fuel phase-out and transition to carbon neutrality.

Decommissioning of infrastructure refers to the removal of redundant infrastructure (equipment, buildings, material) when a coal mine or a power generation facility has reached the end of its service life. The level of decommissioning work, together with site clean-up, will depend on potential future reuse options.

Energy transition refers to the (global) energy sector's shift from fossil-based systems of energy production and consumption – including oil, natural gas, and coal – to renewable energy sources like wind and solar. The need to reduce energy-related CO₂ emissions to limit climate change is at heart of energy transition. Adoption of renewable energy and energy efficiency

measures are needed to achieve the required carbon reductions.

Future proofing refers to processes for anticipating future developments and events and taking actions to prepare to minimise possible negative consequences and maximise possibilities to seize opportunities. In the context of energy transition, ‘future proofing’ often refers to making investments that are resilient towards the effects of climate change and/or aligned with and adaptable to expected trends and changes in energy production and consumption, including climate neutrality. Future proofing investments in emerging post-transition sectors provide, therefore, a safeguard for long term employment and productivity potential of the local or regional economy.

Governance model refers to the arrangement put in place by public authorities to deliver its coal transition strategy in a way that is effective within the broader prevailing governance context. Successful governance models rely on close cooperation among the various governance levels (local, regional, national) and the various actors (public, private, social) in the concerned coal region(s).

Inclusion, also known as social inclusion, is the process and outcome of improving the terms on which individuals and groups, who might otherwise be excluded or marginalized, take part in society. An inclusive approach to energy transition is one that recognises and addresses in a meaningful way the disproportionate effects of the transition on certain groups and individuals. It may also encompass an approach whereby transition is recognised as an opportunity to improve the well-being of those that are already excluded or marginalized.

Industrial reconversion refers to conversion of former industrial areas, including post mining areas, and related activities into alternate socio-economic uses. Regions with a historical legacy of mining and industrial heritage have an opportunity to use the industrial infrastructure as an asset for future economic activity (e.g., industrial zone, cultural centre, or business and technology park).

Just transition encapsulates the principle that the transition to a climate neutral economy should happen in a fair way, whereby the benefits and costs of transition are distributed equitably, and where those that stand to lose economically or socially from the transition are adequately supported to ensure that no one is left behind. Consequently, just transition focus on jobs and livelihoods, and on advancing social and economic justice. It also incorporates the principle that transition processes should be based on dialogue and cooperation between workers, employers, communities, and governments to draw-up and drive the concrete policies, plans, and investments to achieve transition.

Legacy infrastructure relates to physical structures, utilities and machinery that were previously used in the extraction, preparation and transportation of coal and which are no longer utilised due

to the cessation of mining activities. These can represent both assets and liabilities; their status being dependent on their condition, maintenance, investment, and future plans for a site or a locality.

Mine closure is the process undertaken when the operational stage of a mine is ending or has ended, and the final decommissioning and mine rehabilitation is due to commence or is underway.

Mine closure liability is the situation of being legally responsible for a mine closure, which usually falls on the mine operator who should prepare and execute a mine closure plan. Government may face a risk of having to assume the liability for mine closure if an operator fails to or is incapable of closing the mine in a responsible manner.

Mining communities are communities, towns, or larger urban areas where miners and/or former miners and their families live. Mining communities are usually created around a mine or a quarry and are often characterised by a mono-industrial economy (an economy dominated by a single industry or company). They also often have strong local identity and display a place attachment to their community – a cultural and emotional bond between person and place.

Mining heritage relates to heritage values of former mining places, such as specific cultural and social values and meanings. Upon closure, the mining industry often leaves behind a large number of tangible and intangible assets which are a reminder of the past importance of mining and which contribute to regional identity. Physical mining heritage, such as buildings, machinery and equipment, are often transformed into cultural attractions of historical value that attract visitors to the region.

Multi-level governance (MLG) refers to models for both the decision making and implementation of policies and strategies that rely on interactions between different levels of government (i.e., local-regional-national). Effective multi-level governance models can enhance cooperation across levels of government, enabling synergies among different actions that can improve implementation of transition strategies and better achieve national and sub-national policy goals. Multi-level governance enables synergies between the priorities, powers, functions and regulations of differing levels of government.

Participatory methods refer to ways for active involvement of ‘the public’ in decision-making processes. The public can be citizens, stakeholders in a particular project or policy, experts, and other concerned parties. Participatory methods are considered to be integral to achieving a just transition in coal regions, as they can empower affected communities, enhance transparency, accountability, and responsiveness, and improve public policies and services. There are various participatory methods, including focus groups, consensus building conferences, thematic workshops and social dialogue activities. These methods can form the basis for partnership-

based planning and co-creation of a transition strategy.

Perpetual obligations are ongoing actions, such as pumping of mine water, that need to be continued indefinitely after cessation of mining activities. Such obligations depend on the type of coal mine and on specific regulatory requirements.

Public-private partnerships (PPPs) are long-term contractual agreements between a government entity and a private party for the provision of a public asset or service, in which the private party bears significant risk and management responsibility. This may relate to infrastructure assets (such as bridges, roads) or social assets (such as hospitals, utilities) and their associated services.

Reclamation are actions performed during or after a mining operation to shape, stabilize, revegetate or otherwise treat the land in order to return it to a safe, stable condition consistent with the establishment of a productive post-mining use of the land and the safe abandonment of a facility in a manner which ensures the public safety, as well as the encouragement of techniques which minimize the adverse visual effects.

Regional mine closure planning applies a regional land use approach to mine closure that goes beyond site-specific plans and aligns site-specific rehabilitation and repurposing targets to regional land use needs and capacities within an overarching planning context. Such an approach should lead to more focussed and co-ordinated efforts, as rehabilitation can be aligned to wider considerations of land productivity, ecosystem functionality, urban and rural development, or renewable energy drivers.

Rehabilitation planning is planning for restoration of land on which mining has taken place to prepare it for its intended post-closure land uses, which may be to restore the landscape to its pre-mining land uses (environmental rehabilitation). Rehabilitation planning may include measures relating to physical mine closure, environmental reclamation and rehabilitation (including the removal of mine equipment), securing the stability of remaining dumps and impoundments, water management and surface stability at closed underground mines, and monitoring and managing any post closure environmental and human health impacts.

Remediation is an action of remedying something, i.e. reversing or stopping environmental damage. Often used in context of contaminated soils or water. Remediation may include activities carried out to clean up or mitigate contaminated land or water.

Renewable energy is energy that is produced by natural resources—such as sunlight, wind, rain, waves, tides, and geothermal heat—that are not depleted or are naturally replenished within a short time span (i.e., within a few years or on a ‘human timescale’). Biomass (organic material from animal or plant matter) is also defined as a renewable energy source but for it to make an effective contribution to

reducing greenhouse gas emissions, it must be produced and managed in a sustainable way.

Repurposing refers to the beneficial reuse of a closed mining or other industrial operation, whether through value-added changes or reuse of the land (e.g., energy generation or residential use), reuse of infrastructure at its present location or at another site, or derivative business opportunities that create new economic activity.

Revitalisation refers to policies and processes implemented to return and sustain the economic, environmental and social dimensions/contribution of the former mining (or industrial) sites for the benefit of the local community. Conducting revitalisation is aimed at preserving the mining cultural heritage, while introducing new economic and social functions. Successful revitalisation can attract visitors and investors, increase attractiveness of the region and revitalise local communities.

Social dialogue refers to negotiations, consultations or simply exchange of information between, or among, representatives of government, employers, and workers, on issues of common interest typically relating to economic and social policy. It can exist as a tripartite process, with the government as an official party to the dialogue or it may consist of bipartite relations only between labour and management (or trade unions and employers' organisations), with or without indirect government involvement. Social dialogue processes can be informal or institutionalised, and often it is a combination of the two. It can take place at the national, regional or at enterprise level. It can be inter-professional, sectoral or a combination of these.

Social impacts refer to socio-economic and cultural aspects of mine closure. Some of the common social impacts of closure include changes to the affected community's economic structure (e.g., loss of employment and business opportunities) and dynamics (e.g., demographic changes, departure of employees). In the context of coal phase out, social impacts can also encompass gender dimension (e.g., gender-related economic and employment inequalities), health and well-being of miners.

Smart specialisation is an approach that combines industrial, educational and innovation policies to suggest that countries or regions identify and select a limited number of priority areas for knowledge-based investments, focusing on their strengths and comparative advantages. In the EU Member States, smart specialisation is a place-based innovation policy concept used to support regional prioritisation in innovative sectors, fields or technologies. Regions impacted by coal phase out are under pressure to identify and develop new areas of specialisation, and to support local economic actors to exploit latent economic specialisms and diversify their local and regional economies.

Stakeholder engagement refers to the process by which an organisation leading the

transition away from coal engages with and involves those who are concerned or affected by the decisions that are made. Stakeholder engagement goes together with partnership building, both of which allow stakeholders to pool their resources to solve common problems. Effective stakeholder engagement can enhance the quality of decisions and outcomes, strengthen public trust, and enhance broad acceptance. If implemented properly, stakeholder engagement fosters legitimacy, especially through improving transparency and inclusivity. The inclusion of a broad and diverse set of stakeholders, including citizens, is considered a key element to successful stakeholder engagement.

Stranded assets are now generally accepted to be those assets that at some time prior to the end of their economic life (as assumed at the investment decision point) are no longer able to earn an economic return (i.e. meet the company's internal rate of return), as a result of changes associated with the transition to a low-carbon economy (lower than anticipated demand / prices). Or, in simple terms, assets that turn out to be worth less than expected as a result of changes associated with the energy transition.

Structural change refers to a qualitative transformation and evolution of economic systems. It is represented by a change in the relative weight of significant components of the economy such as production, consumption, employment, and population, and is seen in a shift or change in the ways a market, industry or economy functions or operates. Structural change is often sparked by technological innovation, new economic developments, changes in resource availability, changes in supply and demand of resources, and changes in the political landscape. In coal regions, structural change is associated with a transition from a carbon-intensive economy, where coal-related activities play a major role in the local economy, to a carbon-neutral economy, which utilises clean technologies and processes.

Welfare support is a government intervention intended to ensure that members of a society can meet their basic needs. Welfare support is usually part of an integrated portfolio of interventions that constitute the broader social protection (social security) system. In the context of a coal phase out, welfare support measures will be typically needed for workers that have lost or are about to lose their jobs. Welfare support can come in various forms, including income replacement benefits, early retirement options, or assistance in seeking alternative employment.

