# A Greener Labor Market: Employment, Policies, and Economic Transformation


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# Overall Comments

- Very interesting
- Comprehensive
- Well thought out
- Well argued

# Key Questions Addressed

- How Green is the labor market?
- How easily do workers transition into greener jobs?
- How do environmental policies impact the reallocation?

# Data

- Data drawn from 34 countries
- Years from 2005 to 2019
- Level of disaggregation depends on question being asked and methods.
- Would have liked much more detail on the data, countries, measures etc., but assume this is or will be in Chapter or appendices.

# Key Conclusions of the Paper

# How Green is the labor market?

- Only a small fraction of workers are classified as being very green or very brown.
- There is wide variation across industries in emission intensity for example.
- Putting these together suggests a transition to say zero emissions may not be so hard.

# Points to Ponder I: Sector Specific skills

- I think jobs are more sector specific than the authors, and labor less mobile.

An accountant working in oil and gas -- is an oil and gas accountant although accounting is a very green industry.

A manager dealing with exploration and production budgets is not easily transformed into someone who looks after consumer bulk products.

A finance specialist who puts together deal to finance oil and gas operators, is probably not well equipped to manage similar deals for high tech start ups.

Skills may be general, but experience and accumulated human capital may make them far more sector specific than their occupational designation.

# How easily do workers transition?

- Both green and brown jobs are relatively stable.
- Appears that previous industry experience is strongly related to current ability to find jobs – green begets green, etc.  Jobs are sticky.
- Would have liked to seen how sticky brown jobs are?

# Points to Ponder II: Concentration/Agglomeration

- Dirty or pollution intensive jobs are geographically concentrated. Concentration plus agglomeration economies, means the costs and uncertainties of moving plus giving up the returns to local networks.

- Geographic concentration also lends itself to political power, foot dragging, and special concessions slowing any transition.

- Energy, mining and natural resource industries collect rents – some of these are paid back to governments via licenses, leases, but some is shared with workers. Workers who collect rents are loath to leave the industry which will also slow the transition.

- Would be good to know about the length of spells of unemployment, change in incomes, etc. from brown to green or other changes.

# How does Environmental policy impact reallocations?

- More stringent policies are associated with having a higher (lower) green (brown) intensity of jobs.
- Policies should encourage and not deter movements.
- Model suggests infrastructure push and carbon tax can achieve zero emissions in 30 years.

# Points to Ponder III – What is the right Time Frame

- Energy transitions have in the past been incredibly slow – far too slow to reach zero net emissions in 30 years.
- The right mental model of transition is not VHS vs. BetaMax or the Iphone replacing the Blackberry – not substitution
- The right mental model should be steam ships vs. sailing ships where there were large complementarities, and a very long transition.
- I am not sure the right horizon is 2050; I think its more likely 2100, and policies and adjustments then are much easier.

# The History of Past Transitions

- Changed over a much smaller energy demand. Magnitudes lower
- Energy sources did not disappear, shares changed.
- 70 years from introduction of coal to its peak.
- 90 years from introduction of petroleum products to its peak
- All transitions were to more energy dense resources
- Past transitions were largely driven by profit motives and not government policy.

- For details see presentation “Can Green Power save us from Climate Change” at https://www.mstaylor1.org/work#/model-simulations-and-data/