

DPRK 2008 (Rough) Standard of Living Indicator across Provinces: A “Fun” Guide

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Highlights: *Figure 2 provides a clear picture of the large gap between Pyongyang and the rest of the DPRK in terms of access to “high quality” public infrastructure. Using differences in access to such infrastructure as reported in the 2008 DPRK census, I attempt to construct a rough ranking of standards of living in different provinces of the DPRK (Table 2). Caveats apply in determining the accuracy of this ranking.*

The DPRK recently released its 2008 census. For any strange soul looking to migrate to the DPRK, I have created a very rough guide to help you figure out which provinces to move to. Using proxies for standard of living in the census, I constructed some descriptive statistics on living standards across provinces. This is meant to be a fun guide and does not make claims to rigorous analysis of provincial living standards. However, it is still helpful in shedding some light on provincial differences in living standards.

I do not claim that this is an accurate representation for the following reasons:

1. Census figures might not be accurate
2. Proxies used are very rough measure of living standards
3. There is no obvious weighting scheme to weight the different categories in constructing a ranking
4. Linear ranking system fails to capture variance

My approach is to construct the percentage of households with better infrastructure access and use this variable to rank provinces. However, given lingering questions of whether DPRK’s energy shortage has differentially affected those dependent on public goods, this might not reflect the real standard of living.

In Table 1, I indicate the categories that I include in creating this dataset:

Table 1: Included Categories in Proxy for Better Infrastructure Access

	Included	Excluded
Type of Cooking Fuel	Electricity, Gas and Petroleum	Coal, Wood and Others
Type of Heating System	Central/local heating system, electronic heating system	Coal boiler and wood holes and others
Type of Toilet	Flush toilets	Pit Latrine
Source of Water Supply	Piped water and public tap	Tube well, waterhole and spring
Number of Rooms	3 or more	2 or below
Floor Area (in square meters)	76 and over	75 and below

Table 2 provides a ranking of the provinces according to two measures. *Ranking by average rank* takes the average score across each dimension and ranks provinces according to this measure. This is given by Table 4. *Ranking by average percentages* compares the average performance of each province on each indicator. For the details, see Table 5. I adjust the last two categories (Number of Rooms and Floor Area) by weighting them by half as they provide overlapping information. To help visualize the locations of provinces, refer to Figure 1.

Figure 1: Provinces of North Korea



Table 2: Standard of Living Ranking Across Provinces

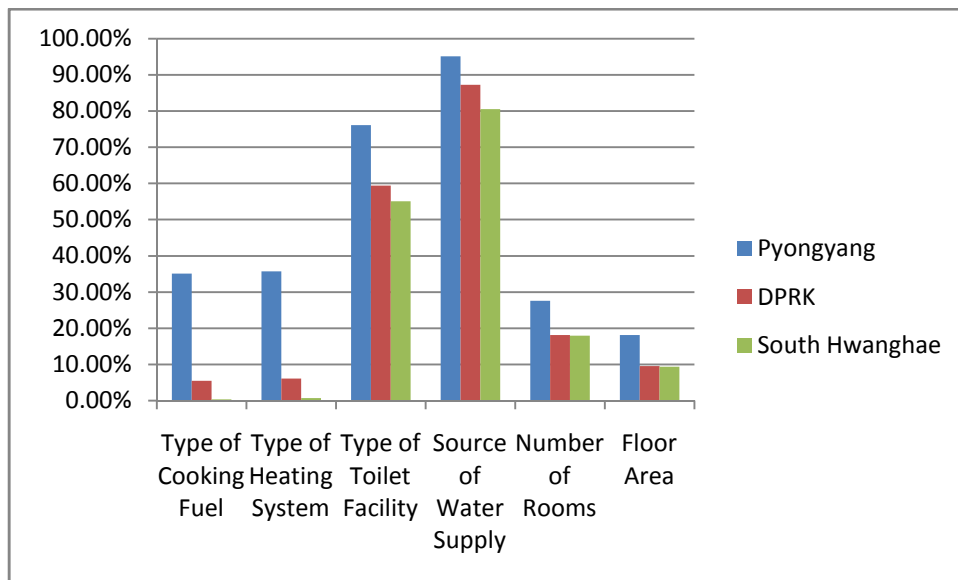
	Rankings by Average Rank	Rankings by Average Percentages
Pyongyang	1	1
South Hamgyong	2	3
Kangwon	3	4
North Hamgyong	4	5
South Phyongan	5	2
Jagang	6	9
Ryongyang	7	7
North Phyongan	8	6
North Hwanghae	9	8
South Hwanghae	10	10

Rankings by Average Percentages See Table 3

Rankings by Average Rank See Table 4

As expected, Pyongyang emerges ahead in both rankings. South Hwanghae ranks last. This comparison might be unfair as Pyongyang is predominantly an urban area, while the other provinces take into account a mix of urban and rural amenities. Figure 2 shows the gap between Pyongyang and the national average in amenities. Most interestingly, cooking fuel is heavily sourced from biofuels and heating systems are largely traditional. I have included South Hwanghae as another reference.

Figure 2: Standard of Living Indicators for Pyongyang, DPRK Average and South Hwanghae



It is possible to cross-validate this standard of living ranking with other sources. North Korean residents would be able to provide anecdotal accounts on standards of living.

Table 3: Percentage of Households with “Better” Infrastructure

	Number of Households	Type of Cooking Fuel	Type of Heating System	Type of Toilet Facility	Source of Water Supply	Number of Rooms	Floor Area
Pyongyang	813769	35.14%	35.70%	76.14%	95.15%	27.58%	18.15%
South	1027727	0.70%	0.56%	57.63%	91.11%	19.24%	6.65%
Phyongan							
South	777207	0.67%	1.16%	56.95%	86.92%	18.89%	12.77%
Hamgyong							
Kangwon	367938	0.70%	1.11%	56.03%	86.30%	19.70%	10.39%
North	587844	0.76%	4.36%	55.99%	85.94%	13.31%	7.83%
Hamgyong							
North	688583	0.46%	0.65%	58.23%	85.71%	14.59%	5.94%
Phyongan							
Ryanggang	183200	2.28%	3.45%	55.25%	84.31%	11.84%	5.14%
North	535511	0.47%	0.50%	55.67%	84.02%	15.59%	7.87%
Hwanghae							
Jagang	327412	1.57%	2.28%	58.47%	81.94%	10.82%	5.08%
South	578280	0.36%	0.75%	55.06%	80.58%	17.99%	9.36%
Hwanghae							

Table 4: Ranking of Provinces by Category and Overall

	Number of Households	Type of Cooking Fuel	Type of Heating System	Type of Toilet Facility	Source of Water Supply	Number of Rooms	Floor Area	Average Ranking Across All Categories*
Pyongyang	2	1	1	1	1	1	1	1
South Hamgyong	3	7	5	5	3	4	2	4.6
Kangwon	8	6	6	6	4	2	3	4.9
North Hamgyong	5	4	2	7	5	8	6	5
South Phyongan	1	5	9	4	2	3	7	5
Jagang	9	3	4	2	9	10	10	5.6
Ryanggang	10	2	3	9	7	9	9	6
North Phyongan	4	9	8	3	6	7	8	6.7
North Hwanghae	7	8	10	8	8	6	5	7.9
South Hwanghae	6	10	7	10	10	5	4	8.3