What Do Workers Value About Formal Employment? Results from a choice experiment in Bangladesh

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RAND LABOR AND POPULATION

Research Questions

- Are workers “locked” into informal employment?
- What aspects of formal employment do workers value most?

Survey of Workers

- Do individual workers transition between formal and informal work?
- What value do workers place on formal employment?
- 1,968 workers in Dhaka, Chittagong and surrounding urban areas of these districts
- Survey done April-June 2016

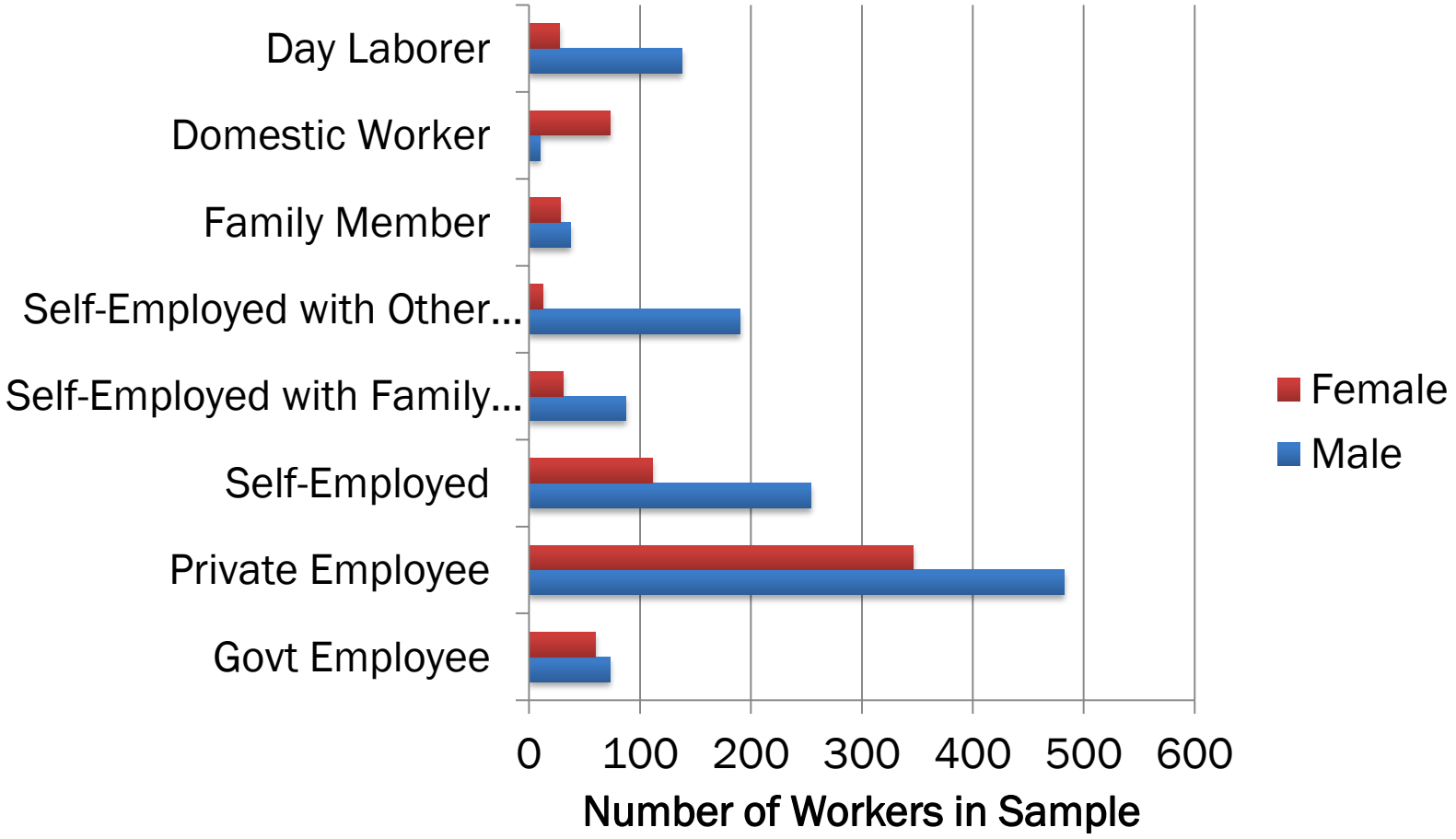
Main Survey Modules

- Basic demographics
- Job history (current, 2 previous jobs)
- Benefits (for wage workers)
- Business characteristics (for self-employed and family members)
- Working conditions
- Choice experiment to elicit valuation of different aspects of formality

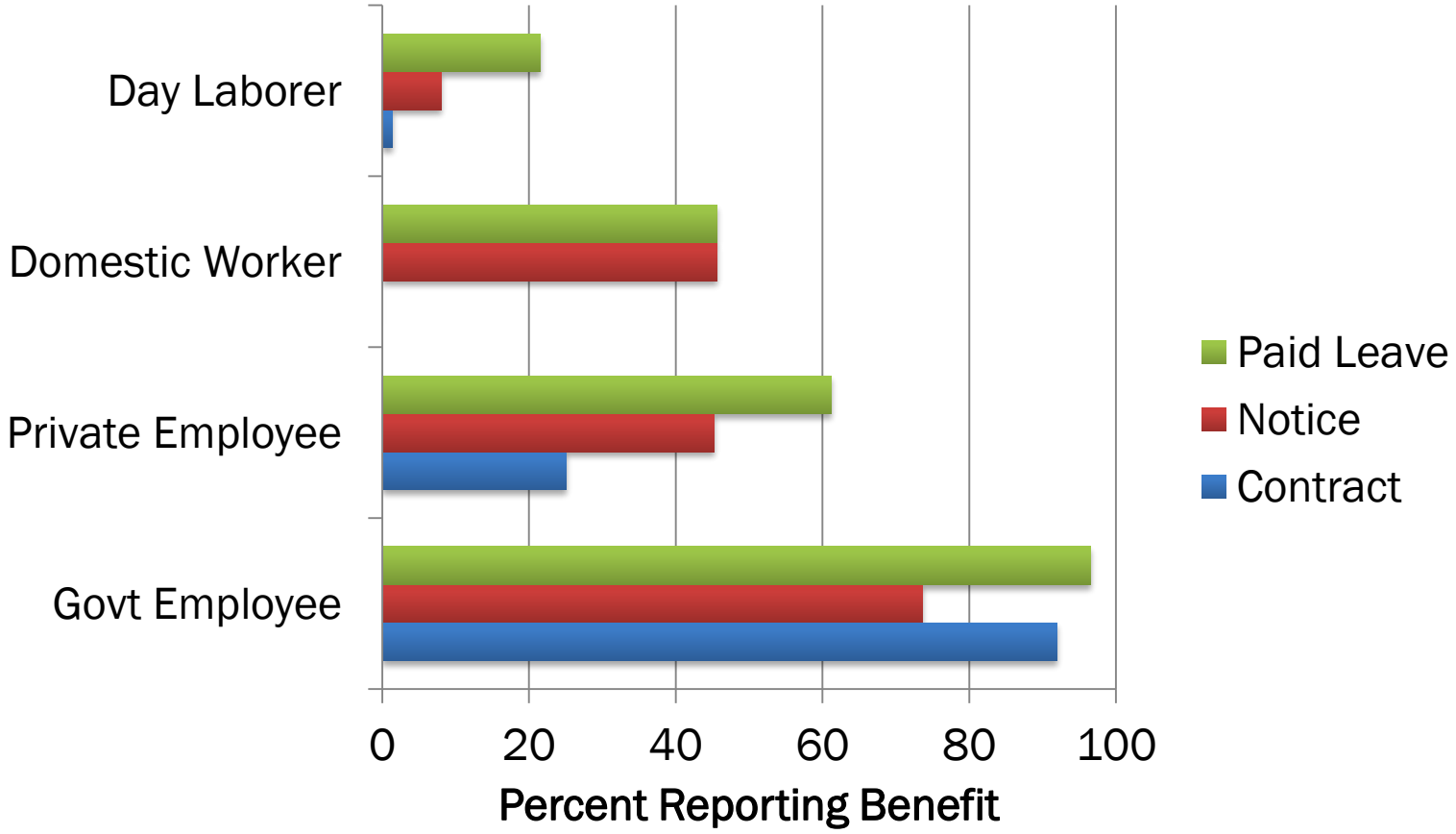
Sampling Methodology

- PPS draw of 80 “mouzas” in Dhaka, Narayanganj, Gazipur, Chittagong
- Random walk method to find households
- First stage enumeration of *all* HH members
- Second stage SRS of working adults by gender, type of worker

We Surveyed 690 Women and 1,274 Men

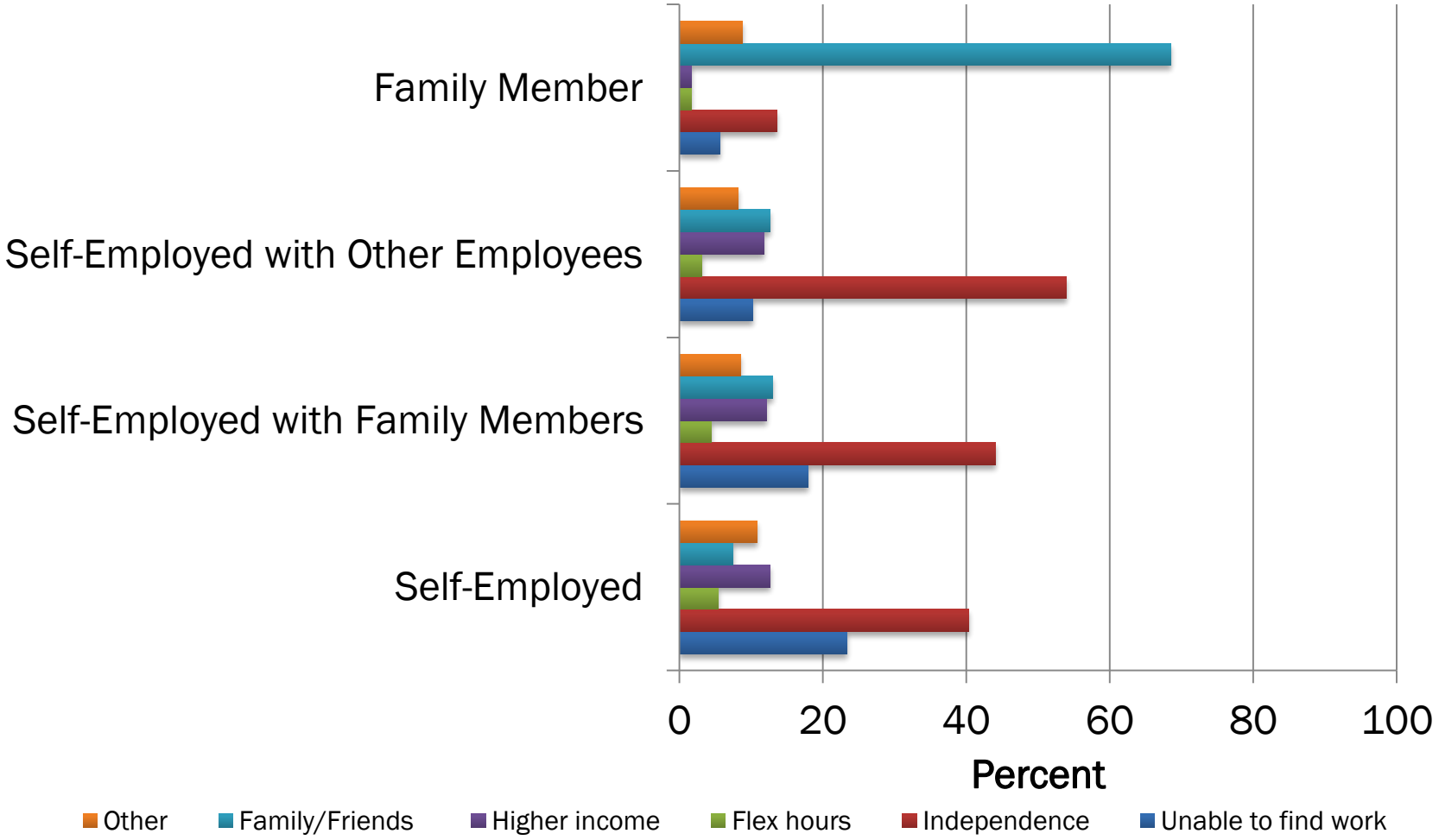


Workers Vary Across Various Dimensions of Formality



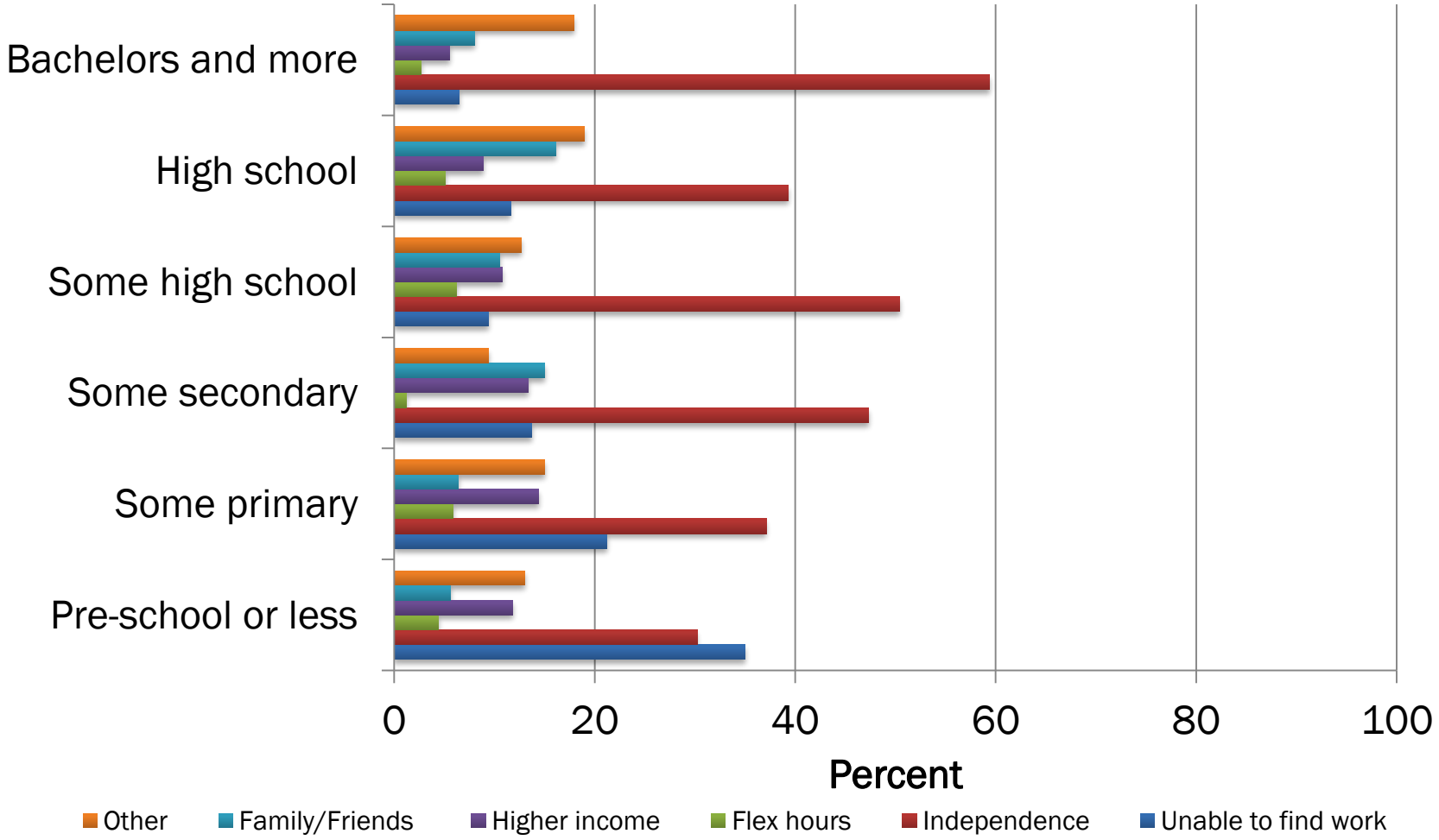
Note: Sampling weights are applied.

Self-Employed Include those Seeking Independence and Those Unable to Find a Job



Note: Sampling weights are applied.

Independence Is More Prevalent For Those With Higher Education



Note: Sampling weights are applied.

Probability of Having Formal Job Strongly Correlated with Education

	(1) Contract		(2) Notice		(3) Contract Ever		(4) Notice Ever	
Male	-0.012	(0.028)	-0.038	(0.035)	-0.020	(0.026)	-0.046	(0.033)
Age	-0.000	(0.002)	-0.003	(0.002)*	0.002	(0.001)	-0.002	(0.002)
Some primary	0.044	(0.030)	0.109	(0.045)**	0.076	(0.025)***	0.147	(0.040)***
Some secondary	0.102	(0.033)***	0.105	(0.048)**	0.150	(0.030)***	0.159	(0.043)***
Some high school	0.250	(0.045)***	0.323	(0.056)***	0.289	(0.039)***	0.381	(0.050)***
High school	0.405	(0.058)***	0.379	(0.066)***	0.452	(0.051)***	0.401	(0.059)***
Bachelors and more	0.521	(0.054)***	0.451	(0.060)***	0.546	(0.047)***	0.521	(0.052)***
Experience	0.007	(0.002)***	0.009	(0.003)***	0.005	(0.002)***	0.006	(0.002)***
Observations	1155		1061		1366		1255	

se in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Active Transition Across Different Types of Jobs

		Current Job								
		Govt employee	Private employee	Self-employed	Self-employed with family members	Self-employed with others	Family member	Domestic worker	Day laborer	Total
Previous job #1	Govt employee	**45**	36	6		6			6	100
	Private employee	4	**57**	17	4	10	1	2	6	100
	Self-employed	0.5	31	**32**	10	15		1	11	100
	Self-employed with family members		12	27	**25**	22		2	12	100
	Self-employed with others		24	29	7	**31**	2		7	100
	Family member		27	17	8	23	**2**		23	100
	Domestic worker		25	12	9		11	**28**	16	100
	Day laborer		23	22	6	9	0.4	2	**38**	**100**

From Private Employment to Self-Employment

		Current Job								
		Govt employee	Private employee	Self-employed	Self-employed with family members	Self-employed with others	Family member	Domestic worker	Day laborer	Total
Previous job #1	Govt employee	**45**	36	6		6			6	100
	Private employee	4	**57**	**17**	**4**	**10**	**1**	2	6	100
	Self-employed	0.5	31	**32**	10	15		1	11	100
	Self-employed with family members		12	27	**25**	22		2	12	100
	Self-employed with others		24	29	7	**31**	2		7	100
	Family member		27	17	8	23	**2**		23	100
	Domestic worker		25	12	9		11	**28**	16	100
	Day laborer		23	22	6	9	0.4	2	**38**	**100**

From Self-Employment to Private Employment

Previous job #1	Current Job: Govt employee	Private employee	Self-employed	Self-employed with family members	Self-employed with others	Family member	Domestic worker	Day laborer	Total
Govt employee	**45**	36	6		6			6	100
Private employee	4	**57**	17	4	10	1	2	6	100
Self-employed	0.5	**31**	**32**	10	15		1	11	100
Self-employed with family members		**12**	27	**25**	22		2	12	100
Self-employed with others		**24**	29	7	**31**	2		7	100
Family member		**27**	17	8	23	**2**		23	100
Domestic worker		25	12	9		11	**28**	16	100
Day laborer		23	22	6	9	0.4	2	**38**	**100**

Between Domestic & Casual Labor and Private Employment

		Current Job								
		Govt employee	Private employee	Self-employed	Self-employed with family members	Self-employed with others	Family member	Domestic worker	Day laborer	Total
Previous job #1	Govt employee	**45**	36	6		6			**6**	100
	Private employee	4	**57**	17	4	10	1	2	**6**	100
	Self-employed	0.5	31	**32**	10	15		1	11	100
	Self-employed with family members		12	27	**25**	22		2	12	100
	Self-employed with others		24	29	7	**31**	2		7	100
	Family member		27	17	8	23	**2**		23	100
	Domestic worker		**25**	12	9		11	**28**	16	100
	Day laborer		**23**	22	6	9	0.4	2	**38**	**100**

A Number of Workers Move Between Jobs With and Without Written Contracts

		Current Employment				
	Written contract	Has the benefit	Does not have the benefit	Self employed	Don't know	Total
Previous Job #1	Has the benefit	**49**	**13**	**37**	1	100
	Does not have the benefit	**9**	**62**	29	-	100
	Self employed	**8**	32	**60**	-	100
	Don't know	20	60	20	-	100

Between Jobs With and Without Termination Notice

		Current Employment				
	Termination Notice	Has the benefit	Does not have the benefit	Self employed	Don't know	Total
Previous Job #1	Has the benefit	**45**	**16**	**33**	6	100
	Does not have the benefit	**13**	**54**	30	4	100
	Self employed	**16**	21	**61**	2	100
	Don't know	20	26	31	23	100

Between Jobs With and Without Paid Casual Leave

		Current Employment				
	Termination Notice	Has the benefit	Does not have the benefit	Self employed	Don't know	Total
Previous Job #1	Has the benefit	**56**	**13**	**28**	3	100
	Does not have the benefit	**15**	**47**	35	3	100
	Self employed	**19**	20	**60**	1	100
	Don't know	40	21	21	19	100

Probability of Moving from Informal to Formal Job Correlated with Gender, Education, Reason for Leaving Job

	(1) Contract		(2) Notice	
Male	0.105	(0.052)**	-0.069	(0.056)
Age	-0.003	(0.003)	-0.001	(0.002)
Some primary	-0.051	(0.063)	0.036	(0.041)
Some secondary	-0.053	(0.062)	0.069	(0.060)
Some high school	0.070	(0.095)	0.227	(0.096)**
High school	0.083	(0.104)	0.030	(0.072)
Bachelors and more	0.096	(0.100)	0.247	(0.114)**
Experience	0.003	(0.005)	0.003	(0.004)
Found Preferred Job	0.079	(0.036)**	0.019	(0.044)
Formal Job Search	0.072	(0.048)	-0.033	(0.067)
Observations	381		288	

se in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

As is the Probability of Moving from Formal to Informal Job

	(1) Contract		(2) Notice	
Male	-0.135	(0.060)**	-0.026	(0.045)
Age	0.000	(0.002)	0.006	(0.002)***
Some primary	0.051	(0.031)*	0.080	(0.039)**
Some secondary	0.079	(0.043)*	0.031	(0.032)
Some high school	0.107	(0.070)	0.131	(0.056)**
High school	0.285	(0.148)*	0.307	(0.122)**
Bachelors and more	0.000	(.)	0.161	(0.066)**
Experience	0.003	(0.004)	-0.009	(0.004)**
Found Preferred Job	-0.092	(0.048)*	-0.060	(0.036)*
Formal Job Search	0.000	(.)	-0.016	(0.049)
Observations	149		230	

se in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Choice Experiment - Background

- SP method for eliciting preferences for specific *attributes*
- Frames individual's choice among alternatives in terms of random utility maximization (RUM) framework
- Individual chooses most preferred alternative based on its attributes and the "price" associated with the choice – in this case the wage

Random Utility Maximization

Utility from job *j* depends on its attributes x_j and wage w_j:

$$U_j = v(x_j, w_j; \beta) + \varepsilon_j$$

Probability the individual selects job *i* from choice set *C* is:

$$Pr(i|C) = Pr(U_i > U_j) = \Pr(v_i + \varepsilon_i > v_j + \varepsilon_j) = \Pr(v_i - v_j > \varepsilon_j - \varepsilon_i), \forall j \in C$$

If utility is linear-in-parameters and ε_i are distributed Type I Extreme Value:

$$Pr(i|C) = \frac{\exp\left(\sum_{k=1}^{l} \beta_k x_{ik} + \beta_w w_i\right)}{\sum_{j \in C} \exp\left(\sum_{k=1}^{l} \beta_k x_{jk} + \beta_w w_j\right)}$$

Random Utility Maximization

- We can then estimate the parameters on each attribute and on wages using a conditional logit model
- Marginal rate of substitution between any two attributes is given by:

$$MRS_{km} = \frac{\frac{\partial U}{\partial x_k}}{\frac{\partial U}{\partial x_m}} = \frac{\beta_k}{\beta_m}$$

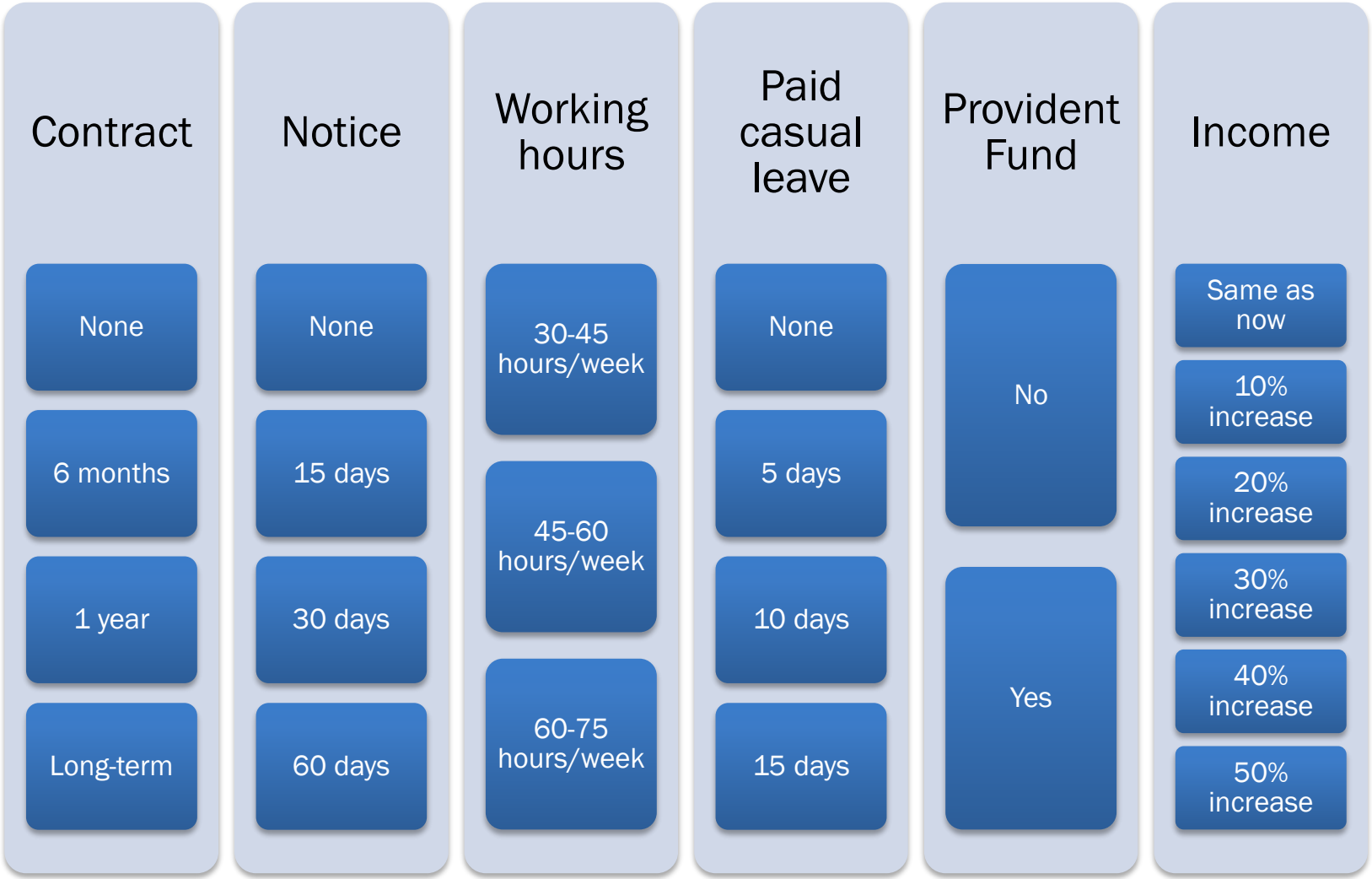
- If attribute *m* is price or wage, then the MRS can be interpreted as the marginal *value* of a one-unit increase in the attribute

Choice Experiment - Example

If you were given the opportunity to choose between these two different jobs that differ in the levels of some or all benefit types, which job would you choose?

	JOB A	JOB B
Written Contract	3 months	1 year
Termination Notice	15 days	15 days
Working hours	30-40 hours per week	40-50 hours per week
Amount of paid leave (not including major government holidays / festival leave)	14 days	14 days
Provident Fund	Yes	No
Monthly salary	20% higher than your current monthly income from main economic activity	10% higher than your current monthly income from main economic activity

Attributes and Levels



Preliminary Results Suggest Contracts are Highly Valued

	Coefficient	Std. Error	Marginal value in terms of % income (β_k/β_w)	Marginal value x Labour Law Requirement
Contract - 6 months	0.95	(0.051)***	19.1	
Contract - 1 year	1.31	(0.055)***	26.4	
Contract - long-term	2.12	(0.086)***	42.8	
Notice (days)	0.02	(0.001)***	0.4	30 days x 0.4=12
Hours (median)	-0.02	(0.001)***	-0.5	
Leave (days)	0.03	(0.002)***	0.5	10 days x 0.5=5
Provident Fund (Yes)	0.87	(0.052)***	17.5	
Percent change in income	0.05	(0.002)***	1.0	

Valuations Are Similar Across Gender, Type of Employment

	Men	Women	Self-Employed, Family Members	Private Employees	Day Laborers, Domestic Workers
Contract - 6 months	18.8	19.7	19.8	18.7	15.6
Contract - 1 year	27.2	24.5	25.1	26.7	23.4
Contract - long-term	43.8	40.7	41.7	41.7	39.0
Notice (days)	0.4	0.4	0.4	0.4	0.4
Hours (median)	-0.4	-0.6	-0.4	-0.4	-0.5
Leave (days)	0.5	0.5	0.5	0.5	0.4
Provident Fund (Yes)	18.1	16.1	17.4	18.4	16.0
% change in income	1.0	1.0	1.0	1.0	1.0

Discussion and Next Steps

- We find active transition across different employment types and benefits
- Workers place a high value on job contracts
- Will more fully exploit rich survey data we have collected
  - For example, how do perceptions of working conditions and valuations depend on job history and other characteristics?