bfw_mp_data

This is the example vignette for function: bfw_mp_data from the **PrjLabEquiBFW Package**.

Get All Data

```
bl_verbose = false;
mp_data = bfw_mp_data(bl_verbose);
```

Dataset 1

```
disp(mp_data('tb_data_pq'));
```

year	category	numberWorkers	meanWage
1989	{'C001'}	1.4486e+06	1.942
1989	{'C002'}	1.1256e+06	3.2247
1989	{'C003'}	1.5156e+06	3.3738
1989	{'C004'}	8.4266e+06	NaN
1989	{'C011'}	9199	2.1604
1989	{'C012'}	1.1011e+05	5.6589
1989	{'C013'}	4.816e+05	5.8023
1989	{'C014'}	2.533e+05	NaN
1989	{'C101'}	4.4275e+06	2.3157
1989	{'C102'}	3.1277e+06	3.2178
1989	{'C103'}	1.9279e+06	4.329
1989	{'C104'}	4.8562e+05	NaN
1989	{'C111'}	96487	4.5245
1989	{'C112'}	2.7718e+05	5.4146
1989	{'C113'}	1.3868e+06	8.0437
1989	{'C114'}	1.187e+05	NaN
1992	{'C001'}	1.7431e+06	1.8431
1992	{'C002'}	1.3773e+06	3.4764
1992	{'C003'}	1.428e+06	4.079
1992	{'C004'}	8.7758e+06	NaN
1992	{'C011'}	18205	4.5495
1992	{'C012'}	1.6703e+05	5.752
1992	{'C013'}	6.2931e+05	7.0257
1992	{'C014'}	3.657e+05	NaN
1992	{'C101'}	4.7927e+06	2.052
1992	{'C102'}	4.0642e+06	2.9976
1992	{'C103'}	1.6709e+06	4.7971
1992	{'C104'}	5.5e+05	NaN
1992	{'C111'}	74782	4.0857
1992	{'C112'}	3.3189e+05	7.9404
1992	{'C113'}	1.4371e+06	10.001
1992	{'C114'}	1.3064e+05	NaN
1994	{'C001'}	2.5091e+06	1.9678
1994	{'C002'}	1.5404e+06	3.5099
1994	{'C003'}	1.5569e+06	4.3758
1994	{'C004'}	8.8237e+06	NaN
1994	{'C011'}	10653	2.8112
1994	{'C012'}	2.4128e+05	6.9136
1994	{'C013'}	7.5302e+05	8.6943
1994	{'C014'}	4.1888e+05	NaN
1994	{'C101'}	5.3134e+06	2.1107
1994	{'C102'}	4.0308e+06	3.1178
1994	{'C103'}	1.6829e+06	4.8591
1994	{'C104'}	7.1707e+05	NaN

1994	{'C111'}	1.5239e+05	7.0725
1994	{'C112'}	4.3682e+05	11.505
1994	{'C113'}	1.557e+06	12.719
1994	{'C114'}	1.2058e+05	NaN
1996	{'C001'}	2.8324e+06	1.459
1996	{'C002'}	2.1046e+06	2.4083
1996	{'C003'}	1.753e+06	2.7709
1996	{'C004'}	8.7805e+06	NaN
1996	{'C011'}	57074	2.3762
1996	{'C012'}	2.5339e+05	4.8631
1996	{'C013'}	9.465e+05	5.8817
1996	{'C014'}	5.1589e+05	NaN
1996	{'C101'}	5.4919e+06	1.7407
1996	{'C102'}	4.4873e+06	2.385
1996	{'C103'}	1.9182e+06	3.3137
1996	{'C104'}	6.9559e+05	NaN
1996	{'C111'}	2.0215e+05	5.7586
1996	{'C112'}	4.858e+05	6.221
1996	{'C113'}	1.6429e+06	7.9771
1996	{'C114'}	1.7307e+05	NaN
1998	{'C001'}	3.1189e+06	1.3076
1998	{'C002'}	2.0101e+06	2.5758
1998	{'C003'}	2.0265e+06	2.9886
1998	{'C004'}	8.8847e+06	NaN
1998	{'C011'}	36132	3.694
1998	{'C012'}	3.2575e+05	5.0667
1998	{'C013'}	9.3514e+05	5.6322
1998	{'C014'}	5.4905e+05	NaN
1998	{'C101'}	5.5182e+06	1.7357
1998	{'C102'}	4.8667e+06	2.4162
1998	{'C103'}	2.1473e+06	3.3496
1998	{'C104'}	6.7234e+05	NaN
1998	{'C111'}	1.6247e+05	4.0171
1998	{'C112'}	5.3722e+05	7.4345
1998	{'C113'}	1.6662e+06	8.7309
1998	{'C114'}	1.9321e+05	NaN
2000	{'C001'}	2.7625e+06	1.659
2000	{'C002'}	2.7297e+06	2.5901
2000	{'C003'}	2.2657e+06	3.2971
2000	{'C004'}	9.3772e+06	NaN
2000	{'C011'}	77107	2.8732
2000	{'C012'}	4.0734e+05	5.2881
2000	{'C013'}	1.1005e+06	6.5806
2000	{'C014'}	7.5089e+05	NaN
2000	{'C101'}	5.6807e+06	1.8978
2000	{'C102'}	5.3498e+06	2.4629
2000	{'C103'}	2.2554e+06	3.968
2000	{'C104'}	6.7471e+05	NaN
2000	{'C111'}	2.1108e+05	3.8076
2000	{'C112'}	6.6682e+05	7.0165
2000	{'C113'}	2.2414e+06	10.509
2000	{'C114'}	1.9925e+05	NaN
2002	{'C001'}	3.6671e+06	1.6863
2002	{'C002'}	2.5202e+06	2.826
2002	{'C003'}	2.4393e+06	3.292
2002	{'C004'}	9.291e+06	NaN
2002	{'C011'}	1.0685e+05	3.7516
2002	{'C012'}	4.5408e+05	5.83
2002	{'C013'}	1.3436e+06	7.9012
2002	{'C014'}	5.9194e+05	NaN
2002	{'C101'}	5.9945e+06	2.0088
2002	{'C102'}	5.2352e+06	2.7613
2002	{'C103'}	2.2663e+06	4.1455
2002	{'C104'}	6.7629e+05	NaN

2002	{'C111'}	2.4805e+05	4.0453
2002	{'C112'}	5.9178e+05	7.1763
2002	{'C113'}	2.0465e+06	8.9213
2002	{'C114'}	3.2278e+05	NaN
2004	{'C001'}	3.5389e+06	1.755
2004	{'C002'}	2.5059e+06	2.6069
2004	{'C003'}	2.5599e+06	3.1199
2004	{'C004'}	9.5136e+06	NaN
2004	{'C011'}	1.4496e+05	3.4155
2004	{'C012'}	4.5696e+05	5.4516
2004	{'C013'}	1.8123e+06	6.7
2004	{'C014'}	7.7668e+05	NaN
2004	{'C101'}	5.9652e+06	2.215
2004	{'C102'}	5.7124e+06	2.8839
2004	{'C103'}	2.3318e+06	3.8541
2004	{'C104'}	9.677e+05	NaN
2004	{'C111'}	2.8065e+05	5.1077
2004	{'C112'}	5.9455e+05	6.7843
2004	{'C113'}	2.2218e+06	8.6393
2004	{'C114'}	2.6115e+05	NaN
2005	{'C001'}	3.604e+06	1.8015
2005	{'C002'}	2.9152e+06	2.6792
2005	{'C003'}	2.4463e+06	3.3468
2005	{'C004'}	9.2417e+06	NaN
2005	{'C011'}	1.2085e+05	2.4982
2005	{'C012'}	5.9567e+05	4.9431
2005	{'C013'}	1.6771e+06	6.3435
2005	{'C014'}	8.2842e+05	NaN
2005	{'C101'}	5.9621e+06	2.2032
2005	{'C102'}	5.4187e+06	2.7741
2005	{'C103'}	2.5829e+06	3.7258
2005	{'C104'}	9.6341e+05	NaN
2005	{'C111'}	3.5414e+05	3.7752
2005	{'C112'}	6.5345e+05	6.9592
2005	{'C113'}	2.3148e+06	8.3387
2005	{'C114'}	2.8472e+05	NaN
2008	{'C001'}	3.9395e+06	1.8657
2008	{'C002'}	2.8968e+06	2.6475
2008	{'C003'}	2.361e+06	3.1947
2008	{'C004'}	9.2787e+06	NaN
2008	{'C011'}	1.5621e+05	3.0013
2008	{'C012'}	6.771e+05	5.3544
2008	{'C013'}	1.9227e+06	6.8198
2008	{'C014'}	9.0351e+05	NaN
2008	{'C101'}	6.0495e+06	2.3736
2008	{'C102'}	5.8662e+06	2.9056
2008	{'C103'}	2.4905e+06	3.7731
2008	{'C104'}	1.2219e+06	NaN
2008	{'C111'}	2.8368e+05	3.9143
2008	{'C112'}	7.9417e+05	6.3566
2008	{'C113'}	2.4155e+06	8.3053
2008	{'C114'}	2.6468e+05	NaN
2010	{'C001'}	3.9036e+06	1.7636
2010	{'C002'}	2.8717e+06	2.4062
2010	{'C003'}	2.7349e+06	2.8429
2010	{'C004'}	9.9169e+06	NaN
2010	{'C011'}	1.2713e+05	3.1825
2010	{'C012'}	6.661e+05	4.7299
2010	{'C013'}	2.2114e+06	6.1872
2010	{'C014'}	1.2068e+06	NaN
2010	{'C101'}	6.6858e+06	2.263
2010	{'C102'}	5.9638e+06	2.5991
2010	{'C103'}	2.4368e+06	3.6533
2010	{'C104'}	1.4088e+06	NaN

```
2010     {'C111'}     3.6653e+05          3.5758
2010     {'C112'}     7.4601e+05          6.2607
2010     {'C113'}     2.7576e+06           8.101
2010     {'C114'}     3.7913e+05             NaN
2012     {'C001'}     5.1813e+06          1.7308
2012     {'C002'}      3.049e+06          2.4089
2012     {'C003'}     3.0537e+06          2.7185
2012     {'C004'}     8.7224e+06             NaN
2012     {'C011'}     1.9743e+05          3.3489
2012     {'C012'}     7.3753e+05          4.1924
2012     {'C013'}     2.3311e+06          6.4194
2012     {'C014'}     1.0551e+06             NaN
2012     {'C101'}      7.139e+06          2.1453
2012     {'C102'}     6.2508e+06          2.5302
2012     {'C103'}     2.5895e+06          3.1115
2012     {'C104'}      1.512e+06             NaN
2012     {'C111'}     4.3101e+05          3.2287
2012     {'C112'}     9.0347e+05          5.0768
2012     {'C113'}     2.7373e+06          7.5722
2012     {'C114'}     3.9649e+05             NaN
2014     {'C001'}     4.5694e+06          1.7262
2014     {'C002'}     3.2584e+06          2.4145
2014     {'C003'}     2.8512e+06          2.6173
2014     {'C004'}      9.733e+06             NaN
2014     {'C011'}     2.5971e+05          2.9667
2014     {'C012'}     8.2213e+05          5.6007
2014     {'C013'}     2.5873e+06          6.1866
2014     {'C014'}     1.3462e+06             NaN
2014     {'C101'}     7.0339e+06           2.212
2014     {'C102'}     6.3219e+06          2.5069
2014     {'C103'}     2.7689e+06          3.1292
2014     {'C104'}     1.5334e+06             NaN
2014     {'C111'}     4.3522e+05          3.3786
2014     {'C112'}     8.8807e+05          5.4313
2014     {'C113'}     3.0431e+06          8.6421
2014     {'C114'}     4.8022e+05             NaN
```

Dataset 1 Aux

```
disp(mp_data('tb_category2sexskillocc_key'));
```

category	sex	skill	occupation	categoryhigher	nesttier	nestid	nestio
{'C001'}	{'Female'}	{'unskilled'}	{'Manual' }	{'B001' }	3	11	
{'C002'}	{'Female'}	{'unskilled'}	{'Routine' }	{'B002' }	3	21	
{'C003'}	{'Female'}	{'unskilled'}	{'Analytical' }	{'B003' }	3	31	
{'C004'}	{'Female'}	{'unskilled'}	{'Home Production'}	{0×0 char}	3	41	Na
{'C011'}	{'Female'}	{'skilled' }	{'Manual' }	{'B101' }	3	12	
{'C012'}	{'Female'}	{'skilled' }	{'Routine' }	{'B102' }	3	22	
{'C013'}	{'Female'}	{'skilled' }	{'Analytical' }	{'B103' }	3	32	
{'C014'}	{'Female'}	{'skilled' }	{'Home Production'}	{0×0 char}	3	42	Na
{'C101'}	{'Male' }	{'unskilled'}	{'Manual' }	{'B001' }	3	11	
{'C102'}	{'Male' }	{'unskilled'}	{'Routine' }	{'B002' }	3	21	
{'C103'}	{'Male' }	{'unskilled'}	{'Analytical' }	{'B003' }	3	31	
{'C104'}	{'Male' }	{'unskilled'}	{'Home Production'}	{0×0 char}	3	41	Na
{'C111'}	{'Male' }	{'skilled' }	{'Manual' }	{'B101' }	3	12	
{'C112'}	{'Male' }	{'skilled' }	{'Routine' }	{'B102' }	3	22	
{'C113'}	{'Male' }	{'skilled' }	{'Analytical' }	{'B103' }	3	32	
{'C114'}	{'Male' }	{'skilled' }	{'Home Production'}	{0×0 char}	3	42	Na
{'B001'}	{'All' }	{'unskilled'}	{'Manual' }	{'A001' }	2	10	
{'B002'}	{'All' }	{'unskilled'}	{'Routine' }	{'A002' }	2	20	

```
{'B003'}    {'All' }    {'unskilled'}    {'Analytical'     }    {'A003' }    2    30
{'B101'}    {'All' }    {'skilled' }    {'Manual'         }    {'A001' }    2    10
{'B102'}    {'All' }    {'skilled' }    {'Routine'        }    {'A002' }    2    20
{'B103'}    {'All' }    {'skilled' }    {'Analytical'     }    {'A003' }    2    30
{'A001'}    {'All' }    {'All'     }    {'Manual'         }    {'AA01' }    1    2
{'A002'}    {'All' }    {'All'     }    {'Routine'        }    {'AA01' }    1    2
{'AA01'}    {'All' }    {'All'     }    {'ManualRoutine'  }    {'AA02' }    0    1
{'A003'}    {'All' }    {'All'     }    {'Analytical'     }    {'AA02' }    0    1
{'AA02'}    {'All' }    {'All'     }    {'All'            }    {0×0 char}   NaN   0    Na
```

Dataset 2

```
disp(mp_data('tb_supply_potwrklei'));
```

year	group	gender	skill	numberPotentialWorkers	shareMarried	shareChildrenUnder5	
1989	{'G00'}	"Female"	"unskilled"	1.2516e+07	0.88971	0.43358	
1992	{'G00'}	"Female"	"unskilled"	1.3324e+07	0.90306	0.45062	
1994	{'G00'}	"Female"	"unskilled"	1.443e+07	0.89015	0.41182	
1996	{'G00'}	"Female"	"unskilled"	1.547e+07	0.88061	0.40429	
1998	{'G00'}	"Female"	"unskilled"	1.604e+07	0.86928	0.38743	
2000	{'G00'}	"Female"	"unskilled"	1.7135e+07	0.85884	0.34545	
2002	{'G00'}	"Female"	"unskilled"	1.7918e+07	0.85017	0.34355	
2004	{'G00'}	"Female"	"unskilled"	1.8118e+07	0.82951	0.31998	
2005	{'G00'}	"Female"	"unskilled"	1.8207e+07	0.82472	0.31105	
2008	{'G00'}	"Female"	"unskilled"	1.8476e+07	0.82096	0.28599	
2010	{'G00'}	"Female"	"unskilled"	1.9427e+07	0.81832	0.27503	
2012	{'G00'}	"Female"	"unskilled"	2.0006e+07	0.81686	0.28519	
2014	{'G00'}	"Female"	"unskilled"	2.0412e+07	0.82762	0.26669	
1989	{'G01'}	"Female"	"skilled"	8.5421e+05	0.87768	0.54077	
1992	{'G01'}	"Female"	"skilled"	1.1802e+06	0.82152	0.49389	
1994	{'G01'}	"Female"	"skilled"	1.4238e+06	0.81836	0.44336	
1996	{'G01'}	"Female"	"skilled"	1.7729e+06	0.8449	0.44756	
1998	{'G01'}	"Female"	"skilled"	1.8461e+06	0.82028	0.3968	
2000	{'G01'}	"Female"	"skilled"	2.3358e+06	0.83775	0.39002	
2002	{'G01'}	"Female"	"skilled"	2.4965e+06	0.81416	0.34612	
2004	{'G01'}	"Female"	"skilled"	3.1909e+06	0.81625	0.36267	
2005	{'G01'}	"Female"	"skilled"	3.2221e+06	0.79637	0.32913	
2008	{'G01'}	"Female"	"skilled"	3.6595e+06	0.77916	0.29259	
2010	{'G01'}	"Female"	"skilled"	4.2115e+06	0.76377	0.2913	
2012	{'G01'}	"Female"	"skilled"	4.3212e+06	0.77164	0.29254	
2014	{'G01'}	"Female"	"skilled"	5.0153e+06	0.78454	0.30464	
1989	{'G10'}	"Male"	"unskilled"	9.9687e+06	0.94927	0.50626	
1992	{'G10'}	"Male"	"unskilled"	1.1078e+07	0.95081	0.52871	
1994	{'G10'}	"Male"	"unskilled"	1.1744e+07	0.93806	0.47527	
1996	{'G10'}	"Male"	"unskilled"	1.2593e+07	0.94471	0.47819	Na
1998	{'G10'}	"Male"	"unskilled"	1.3205e+07	0.94507	0.45177	
2000	{'G10'}	"Male"	"unskilled"	1.3961e+07	0.93873	0.40672	
2002	{'G10'}	"Male"	"unskilled"	1.4172e+07	0.9392	0.41105	
2004	{'G10'}	"Male"	"unskilled"	1.4977e+07	0.93382	0.38584	
2005	{'G10'}	"Male"	"unskilled"	1.4927e+07	0.93314	0.37762	
2008	{'G10'}	"Male"	"unskilled"	1.5628e+07	0.91783	0.35084	
2010	{'G10'}	"Male"	"unskilled"	1.6495e+07	0.92582	0.34076	
2012	{'G10'}	"Male"	"unskilled"	1.7491e+07	0.91384	0.34491	
2014	{'G10'}	"Male"	"unskilled"	1.7658e+07	0.91783	0.31885	
1989	{'G11'}	"Male"	"skilled"	1.8792e+06	0.9391	0.54027	
1992	{'G11'}	"Male"	"skilled"	1.9744e+06	0.94708	0.51393	
1994	{'G11'}	"Male"	"skilled"	2.2668e+06	0.92429	0.46898	
1996	{'G11'}	"Male"	"skilled"	2.5039e+06	0.92112	0.45925	
1998	{'G11'}	"Male"	"skilled"	2.5591e+06	0.90398	0.37354	
2000	{'G11'}	"Male"	"skilled"	3.3185e+06	0.90086	0.39763	

```
2002    {'G11'}    "Male"    "skilled"          3.2091e+06          0.90837          0.36003
2004    {'G11'}    "Male"    "skilled"          3.3582e+06          0.89767          0.36152
2005    {'G11'}    "Male"    "skilled"          3.6072e+06          0.89235          0.33468
2008    {'G11'}    "Male"    "skilled"           3.758e+06          0.86831          0.29492
2010    {'G11'}    "Male"    "skilled"          4.2492e+06          0.87325          0.30987
2012    {'G11'}    "Male"    "skilled"          4.4683e+06          0.83196          0.30303
2014    {'G11'}    "Male"    "skilled"          4.8466e+06          0.86615          0.31875
```

Dataset 2 Aux

```
disp(mp_data('tb_group2category_key'));
```

group	groupName	category	sex	skill
{'G00'}	{'female-unskilled'}	{'C001'}	{'female'}	{'unskilled'}
{'G00'}	{'female-unskilled'}	{'C002'}	{'female'}	{'unskilled'}
{'G00'}	{'female-unskilled'}	{'C003'}	{'female'}	{'unskilled'}
{'G00'}	{'female-unskilled'}	{'C004'}	{'female'}	{'unskilled'}
{'G01'}	{'female-skilled' }	{'C011'}	{'female'}	{'skilled' }
{'G01'}	{'female-skilled' }	{'C012'}	{'female'}	{'skilled' }
{'G01'}	{'female-skilled' }	{'C013'}	{'female'}	{'skilled' }
{'G01'}	{'female-skilled' }	{'C014'}	{'female'}	{'skilled' }
{'G10'}	{'male-unskilled' }	{'C101'}	{'male' }	{'unskilled'}
{'G10'}	{'male-unskilled' }	{'C102'}	{'male' }	{'unskilled'}
{'G10'}	{'male-unskilled' }	{'C103'}	{'male' }	{'unskilled'}
{'G10'}	{'male-unskilled' }	{'C104'}	{'male' }	{'unskilled'}
{'G11'}	{'male-skilled' }	{'C111'}	{'male' }	{'skilled' }
{'G11'}	{'male-skilled' }	{'C112'}	{'male' }	{'skilled' }
{'G11'}	{'male-skilled' }	{'C113'}	{'male' }	{'skilled' }
{'G11'}	{'male-skilled' }	{'C114'}	{'male' }	{'skilled' }