



ENERGY POVERTY INDICATORS WITH INTERACTIVE DATA VISUALIZATION HUNGARY

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Habitat for Humanity[®]
Magyarország



DIRECT SUPPORT TOWARDS
HOUSEHOLDS/COMMUNITIES

RENOVATION / NEW BUILD

VOLUNTEERS

SOCIAL/COMMUNITY WORK

SOCIO-POLITICAL
CHANGE

ADVOCACY



Habitat for Humanity[®]

Magyarország

ENERGY POVERTY IN HUNGARY

- **No national definition or indicators**
 - Little academic research
- **Lack of policies targeting the issue**
- **Requirements from EU**
 - NECP
 - Fit for 55

DEVELOPING INDICATORS

DATA AVAILAIABILITY

- national HBS/SILC microdata

LOW INCOME

HIGH ENERGY EXPENCES

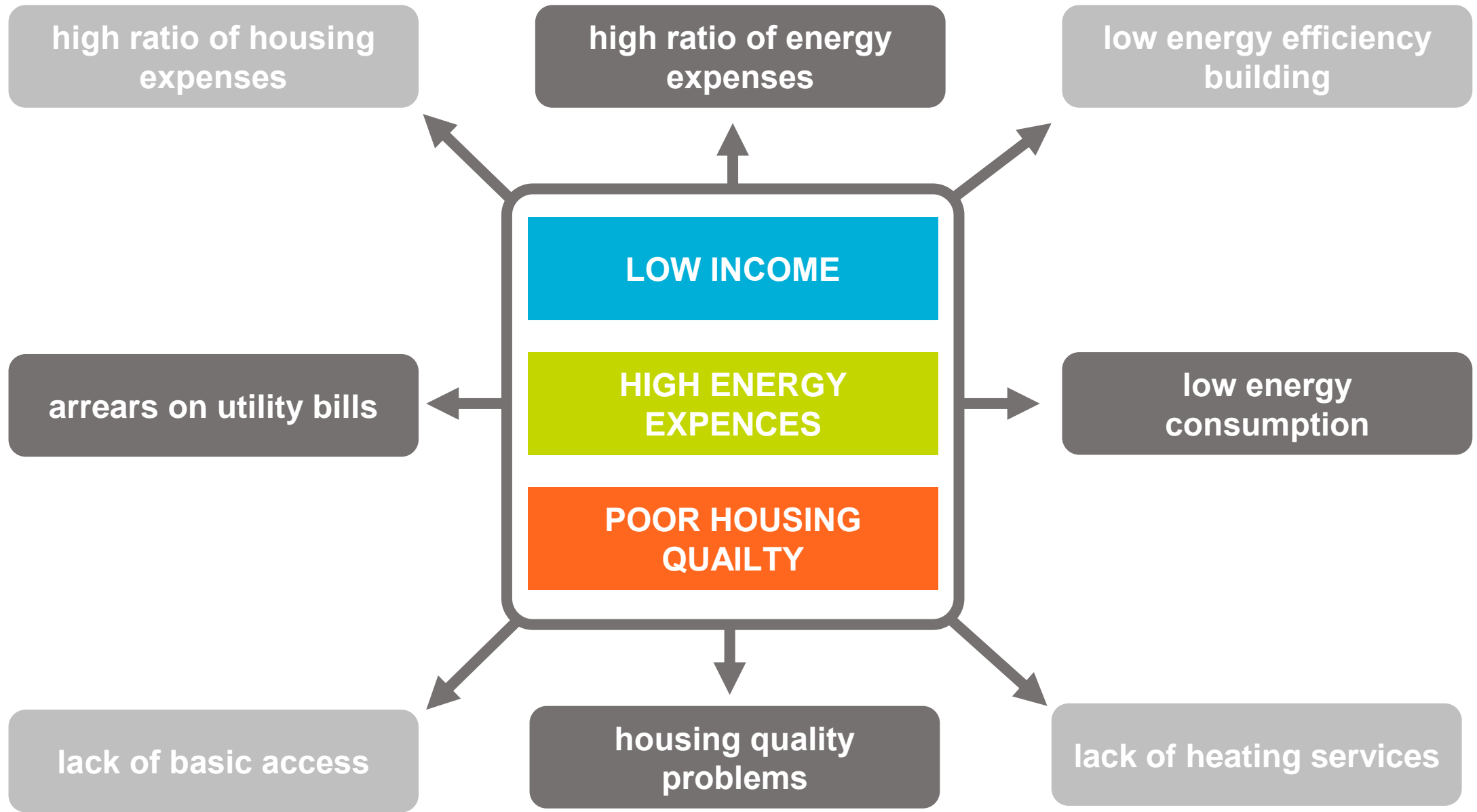
POOR HOUSING QUALITY

REPLICABILITY

- TABULA methodology for building typology
- simple indicators

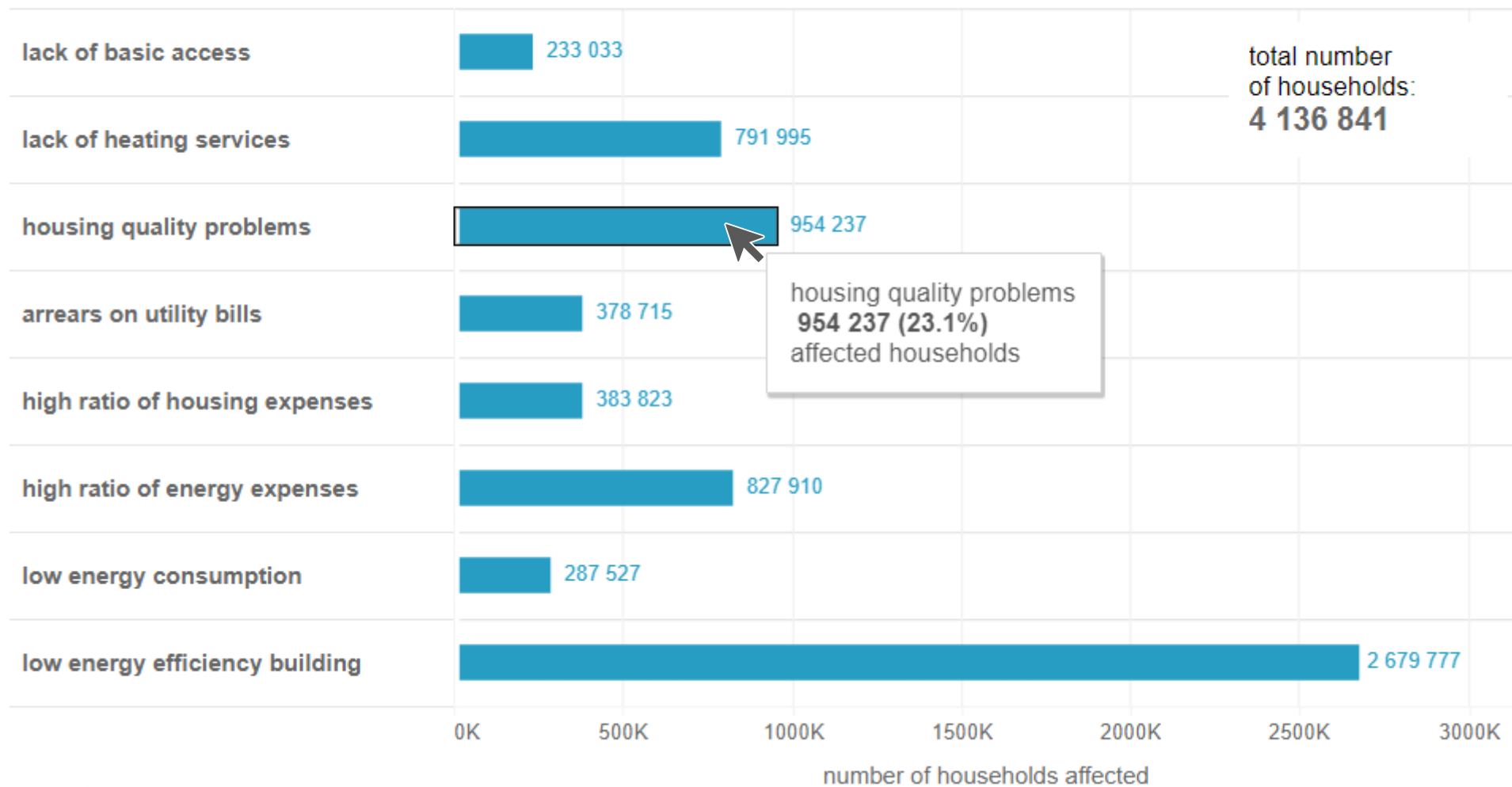
USER FRIENDLY

- interactive data visualization (Tableau)





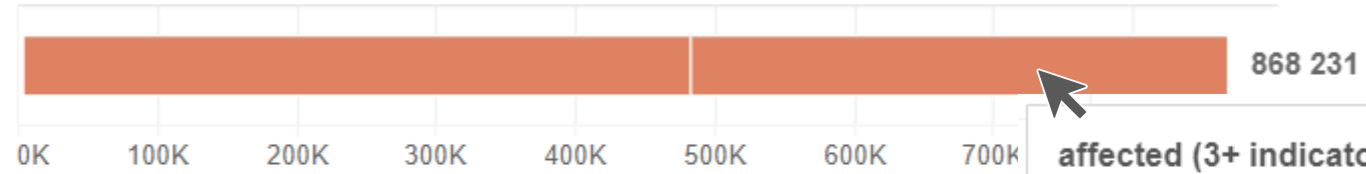
INDICATORS



COMPOSITE INDICATOR



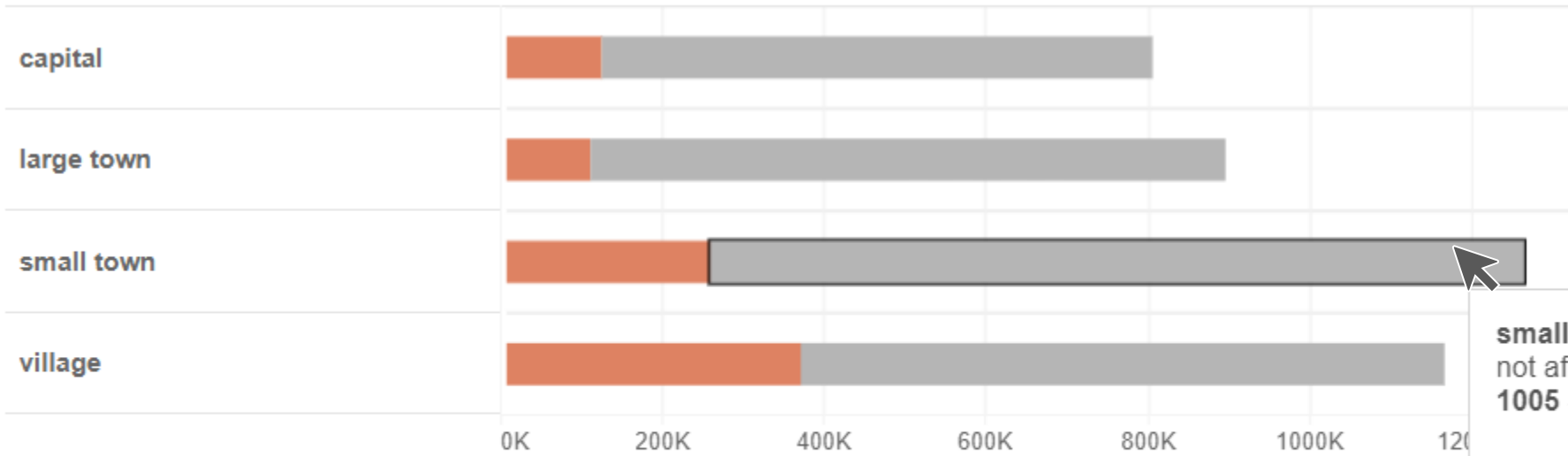
number of households affected



affected (3+ indicators)
385 213
9.3%

by

- number of households
- ratio of households
- not affected
- affected (min. 3 indicators)

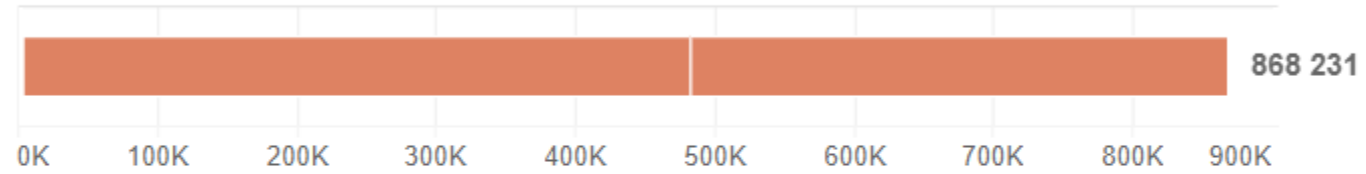


small town
not affected
1005 340
in total 1265 772
households in category

COMPOSITE INDICATOR



number of households affected



by

- settlement type
- building type
- household type
- settlement type
- heating source
- region

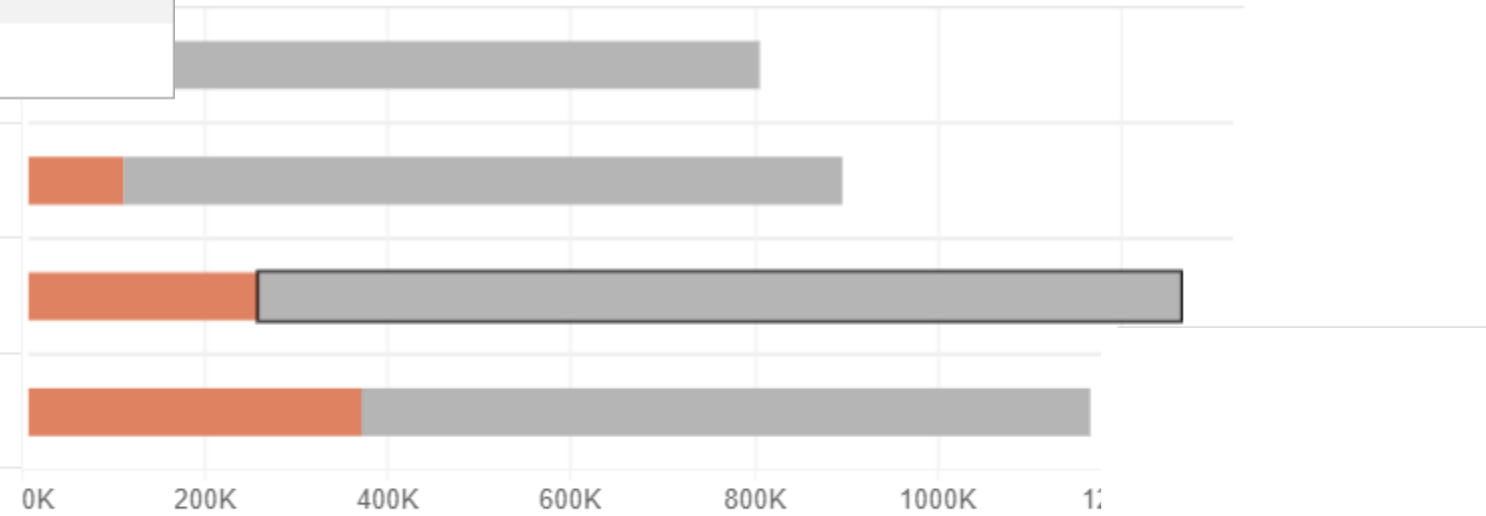
- number of households
- ratio of households
- not affected
- affected (min. 3 indicators)

capital

large town

small town

village



COMPOSITE INDICATOR

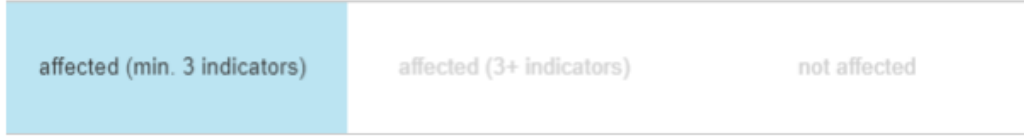
affected (min. 3 indicators)	affected (3+ indicators)	not affected
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by:

number of households
 ratio of households

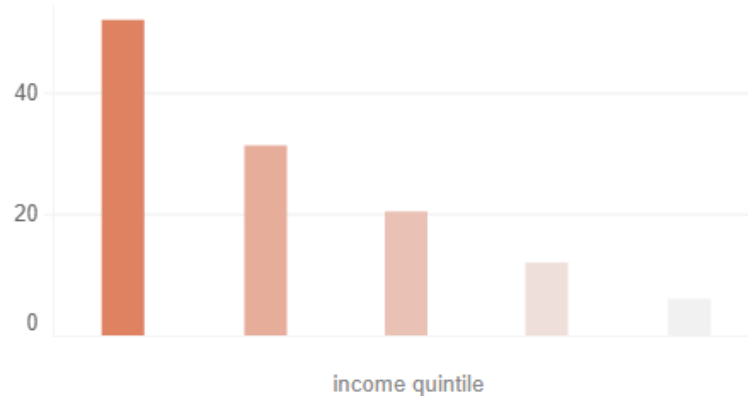
	income quintile				
	1	2	3	4	5
mudbrick house					
single-unit, before 1960					
single-unit, 1960-1979					
single-unit, 1980-1989					
single-unit, after 1990					
multi-unit, before 1990					
concrete-block, 1960-1990					

COMPOSITE INDICATOR



by: building type

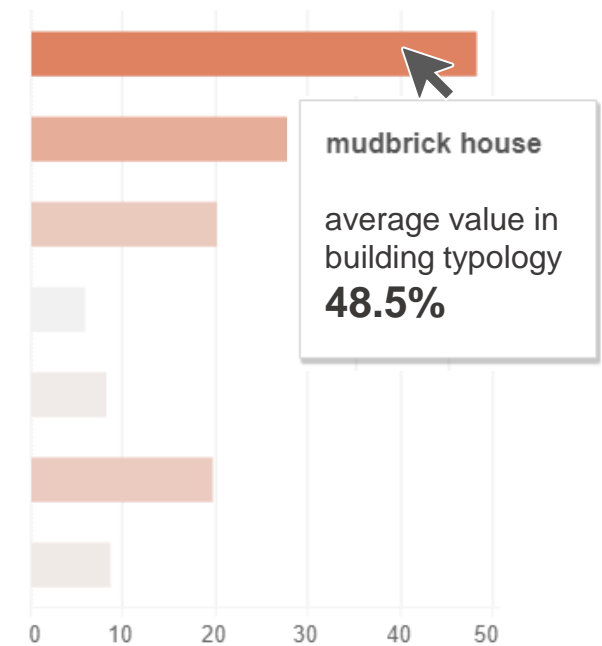
- number of households
- ratio of households



519 001
in the first two
income quintiles

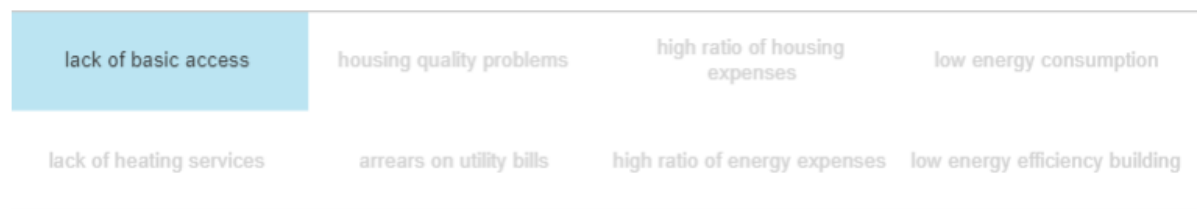
868 231
across all
households

	1	2	3	4	5
mudbrick house	70%	57%	41%	27%	20%
single-unit, before 1960	59%	38%	28%	24%	17%
single-unit, 1960-1979	47%	23%	21%	17%	5%
single-unit, 1980-1989	28%	8%	3%	1%	1%
single-unit, after 1990	33%	12%	2%	0%	0%
multi-unit, before 1990	53%	36%	31%	8%	9%
concrete-block, 1960-1990	29%	18%	7%	8%	2%



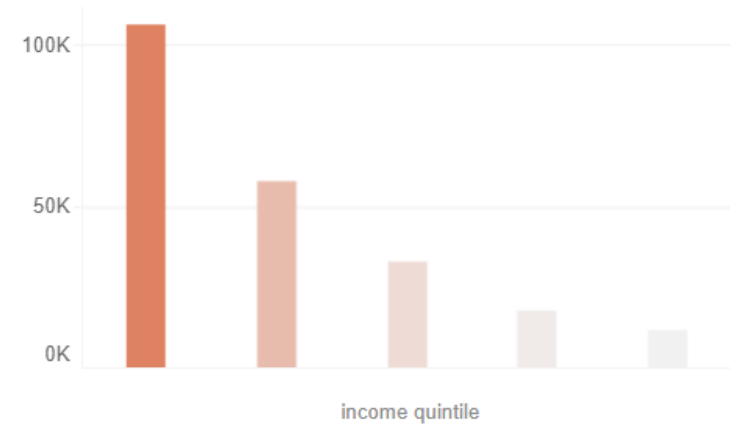
INDICATORS

Dwelling without running water, hot water, bathroom or electricity



by:

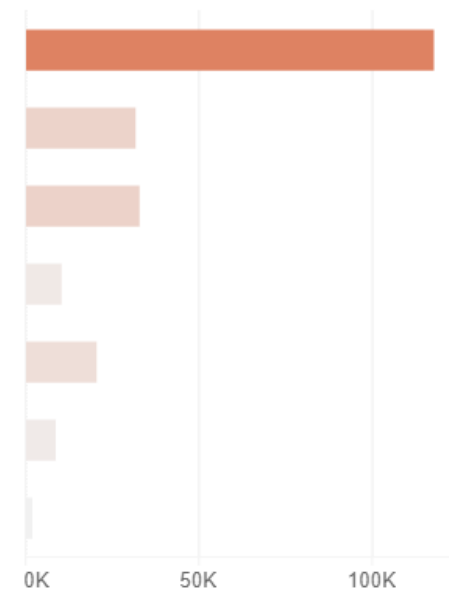
number of households
 ratio of households



163 369
in the first two income quintiles

226 007
across all households

	1	2	3	4	5
mudbrick house	51 517	35 706	18 212	9 481	3 459
single-unit, before 1960	11 404	7 082	7 363	2 676	3 401
single-unit, 1960-1979	16 437	7 457	3 918	4 263	928
single-unit, 1980-1989	7 643	741	415	830	841
single-unit, after 1990	13 997	4 157	1 147	296	1 252
multi-unit, before 1990	4 923	2 305	1 895	0	0
concrete-block, 1960-1990	0	0	0	287	1 974



INDICATORS

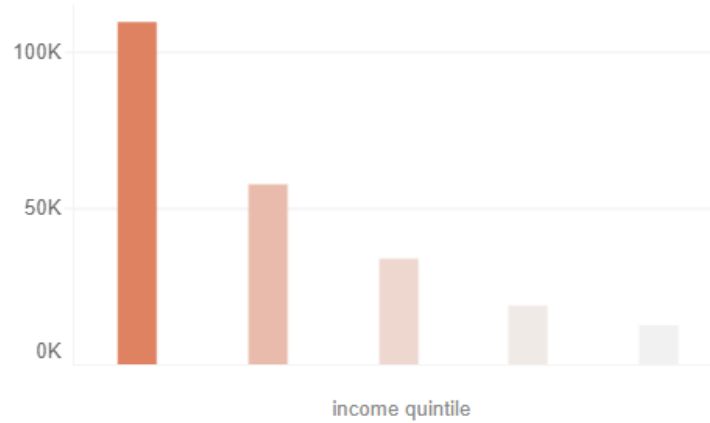
Dwelling without running water, hot water, bathroom or electricity

lack of basic access
housing quality problems
high ratio of housing expenses
low energy consumption

lack of heating services
arrears on utility bills
high ratio of energy expenses
low energy efficiency building

by:

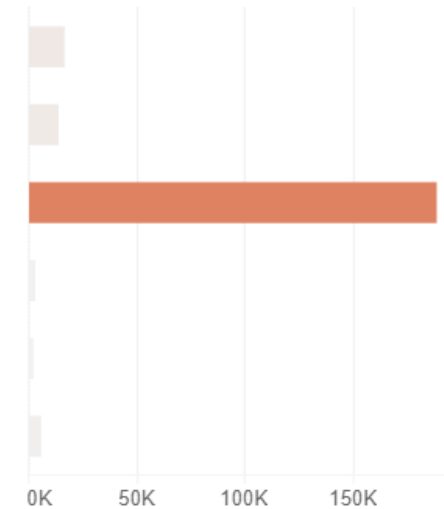
- number of households
- ratio of households



166 995
in the first two
income quintiles

226 007
across all
households

	1	2	3	4	5
gas only	5 963	4 827	3 411	1 745	1 519
gas and solid fuel	5 971	3 871	1 775	1 904	1 221
only solid fuel	92 100	48 078	25 945	15 121	7 864
electricity only	1 541	0	1 731	0	0
district heating	438	0	0	0	1 974
other	3 180	1 026	1 268	287	273



INDICATORS

Dwelling not connected to gas network or district heating service

lack of basic access

housing quality problems

high ratio of housing expenses

low energy consumption

lack of heating services

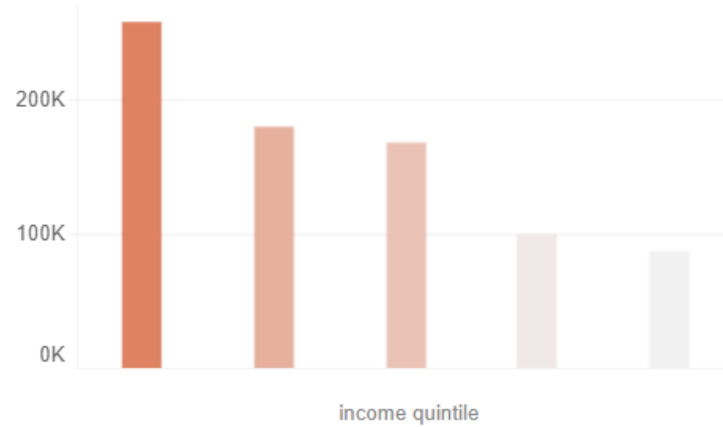
arrears on utility bills

high ratio of energy expenses

low energy efficiency building

by:

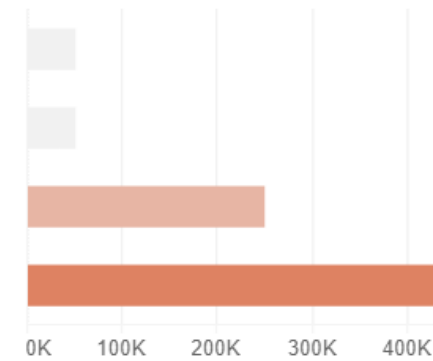
- number of households
- ratio of households



436 930
in the first two
income quintiles

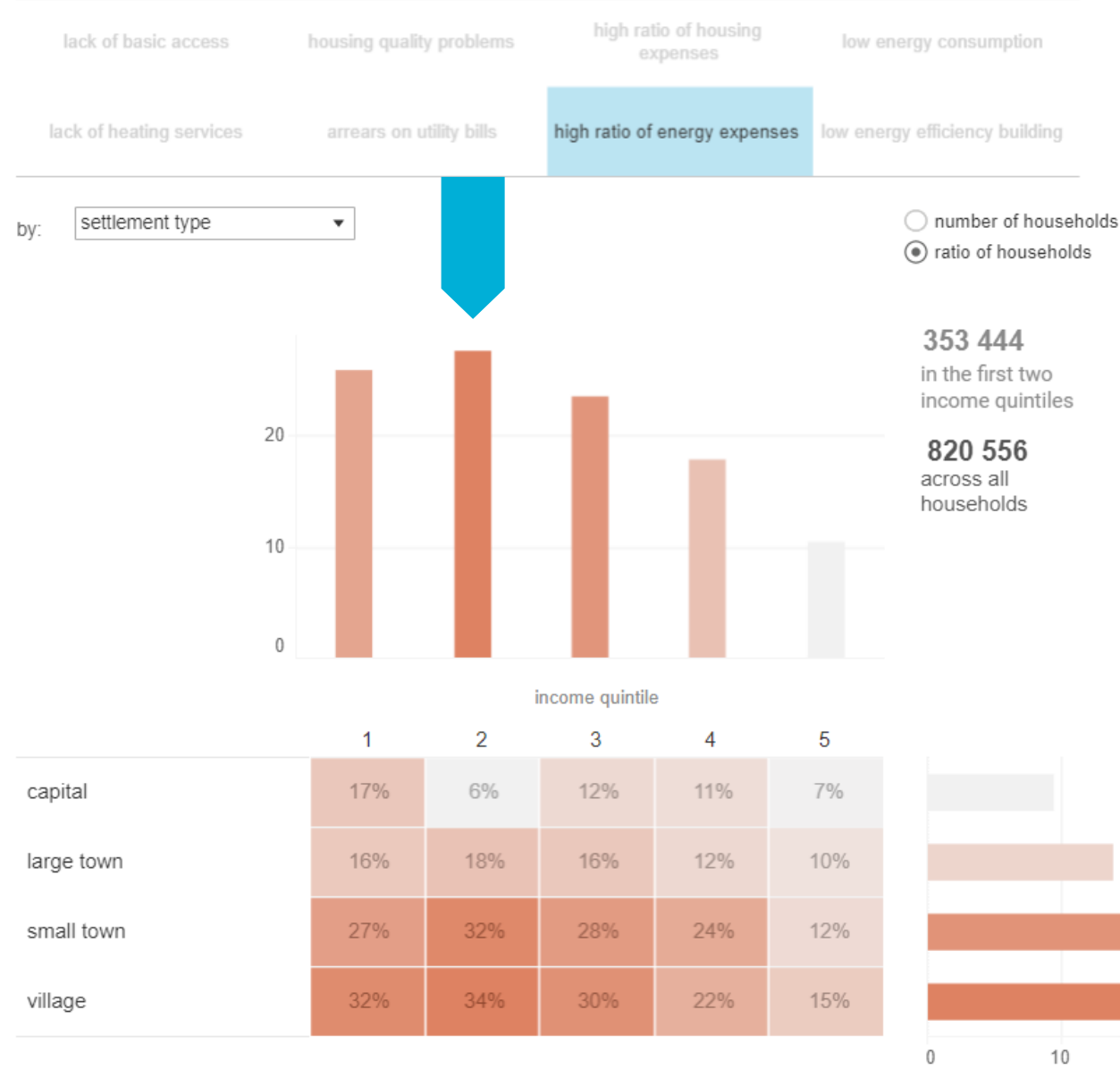
778 307
across all
households

	1	2	3	4	5
capital	3 947	5 009	12 855	9 360	19 985
large town	16 830	9 758	10 202	5 450	9 744
small town	92 695	61 575	48 581	27 753	21 409
village	143 631	103 485	96 423	57 477	35 826



INDICATORS

Energy accounts for more than 20% of total household expenditure



INDICATORS

Housing accounts for more than 40% of total household expenditure

lack of basic access

housing quality problems

high ratio of housing expenses

low energy consumption

lack of heating services

arrears on utility bills

high ratio of energy expenses

low energy efficiency building

by:

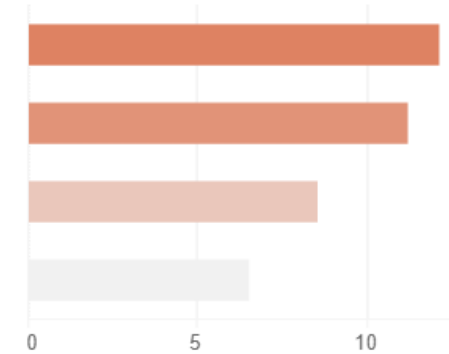
- number of households
- ratio of households



185 193
in the first two
income quintiles

370 656
across all
households

	1	2	3	4	5
capital	25%	26%	13%	8%	8%
large town	29%	16%	11%	9%	5%
small town	13%	12%	8%	7%	4%
village	9%	9%	5%	5%	4%



INDICATORS

Housing costs account for more than 40% of total household expenditure

lack of basic access

housing quality problems

high ratio of housing expenses

low energy consumption

lack of heating services

arrears on utility bills

high ratio of energy expenses

low energy efficiency building

by:



number of households

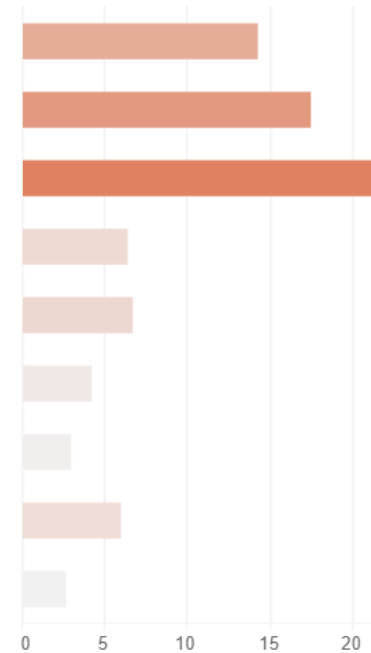
ratio of households



185 193
in the first two
income quintiles

370 656
across all
households

	1	2	3	4	5
1 adult over age 65	24%	29%	17%	11%	9%
1 adult under age 65	30%	32%	18%	17%	9%
1 adult with child(ren)	33%	20%	13%	10%	0%
2 adults over age 65	17%	10%	7%	4%	3%
2 adults under age 65	17%	19%	6%	4%	2%
2 adults with 1-2 children	7%	5%	1%	4%	4%
2 adults with 3+ children	5%	2%	0%	0%	0%
2+ adults with child(ren)	8%	8%	3%	1%	9%
2+ adults without children	10%	2%	2%	3%	1%



DISTRIBUTION OF HOUSEHOLDS

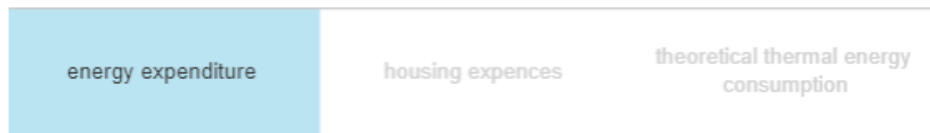
- total number of households
- total number of households (unweighted)



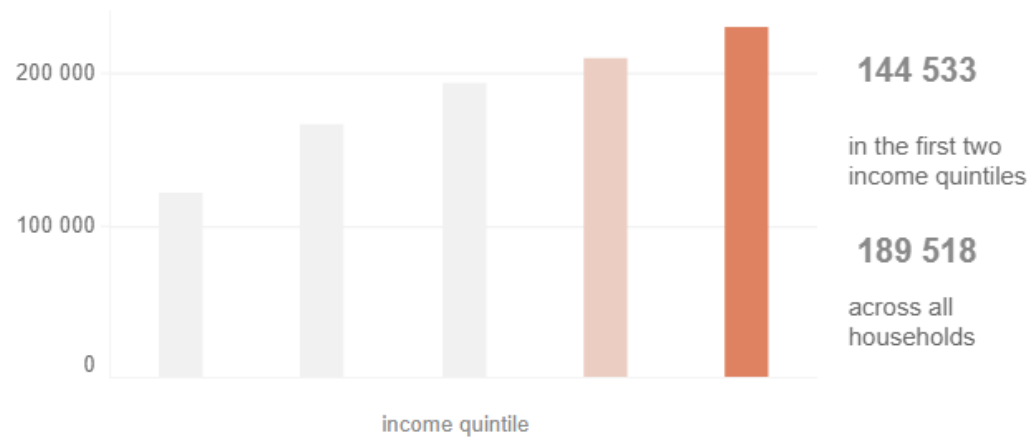
	1	2	3	4	5
mudbrick house	157 358	143 409	129 127	101 893	56 063
single-unit, before 1960	74 977	83 281	108 539	98 144	99 635
single-unit, 1960-1979	106 958	156 344	191 016	181 925	192 340
single-unit, 1980-1989	49 745	79 535	79 707	91 033	113 262
single-unit, after 1990	76 574	67 779	89 005	84 968	109 399
multi-unit, before 1990	54 561	85 580	113 607	149 115	238 621
concrete-block, 1960-1990	50 267	75 615	126 763	161 491	193 085
multi-unit, after 1990	11 319	9 447	15 245	27 166	35 940



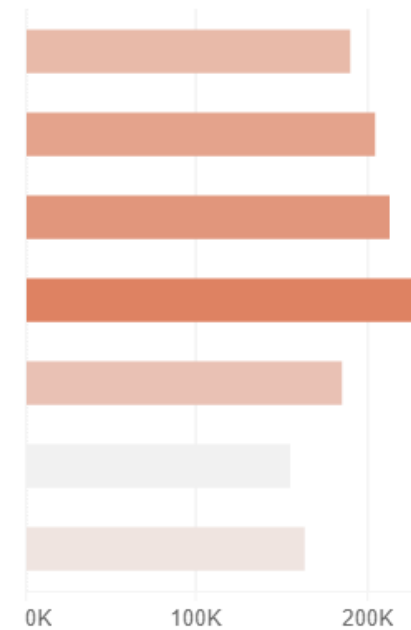
AVERAGE EXPENDITURES



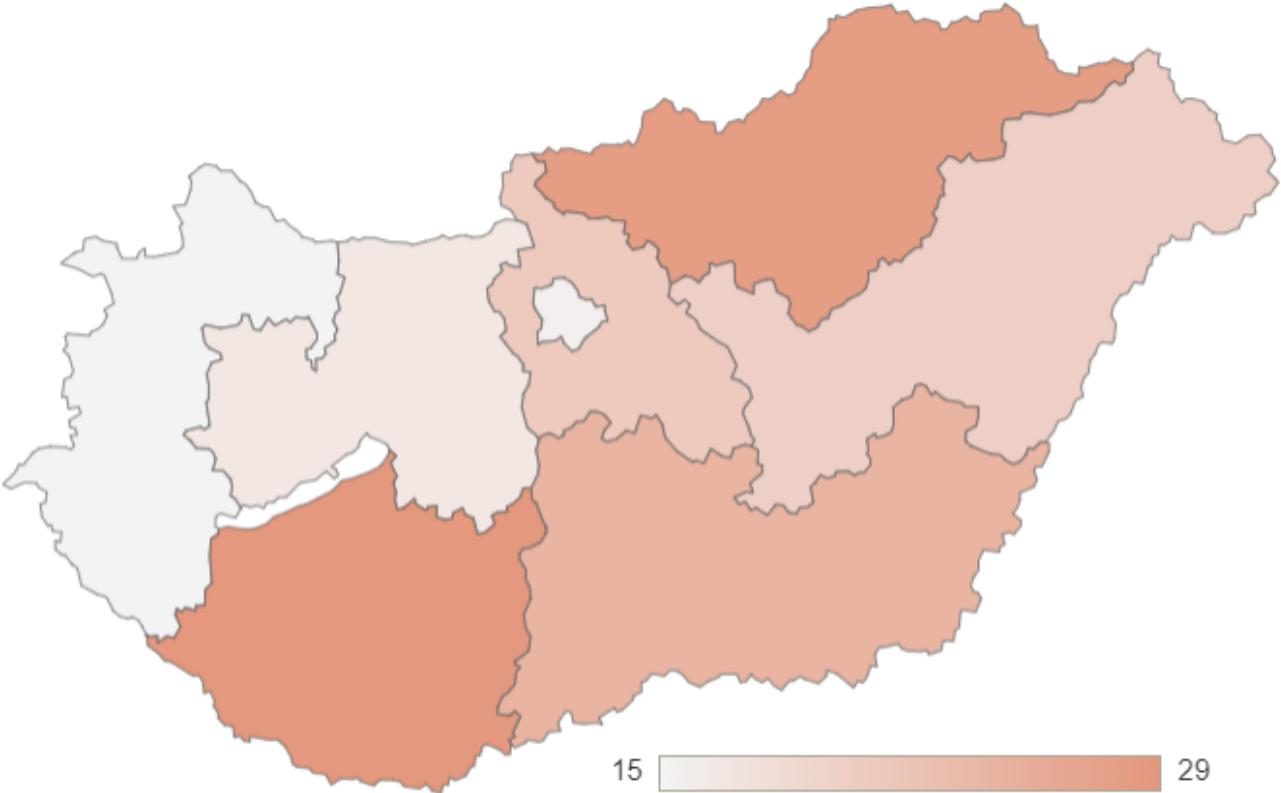
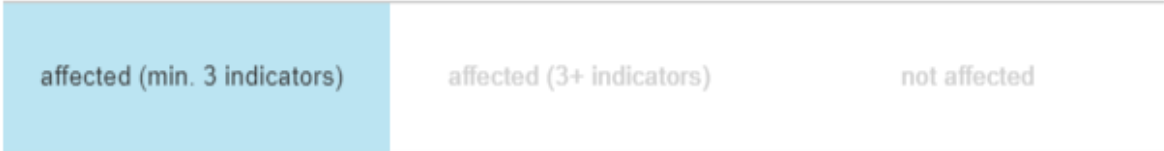
- HUF / household
- HUF / consumption unit
- HUF / energy consumption unit



	1	2	3	4	5
mudbrick house	136 800	176 667	211 000	228 000	260 000
single-unit, before 1960	110 000	175 652	212 750	242 222	258 000
single-unit, 1960-1979	129 286	176 000	218 000	246 000	257 143
single-unit, 1980-1989	120 000	196 000	215 540	260 000	280 000
single-unit, after 1990	124 615	167 477	176 000	194 667	238 667
multi-unit, before 1990	91 714	122 222	154 000	151 000	186 000
concrete-block, 1960-1990	100 800	131 111	153 600	168 200	196 000



COMPOSITE INDICATOR



778 307

households country-wide

- number of households
- ratio of households



THANK YOU FOR
YOU ATTENTION!

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