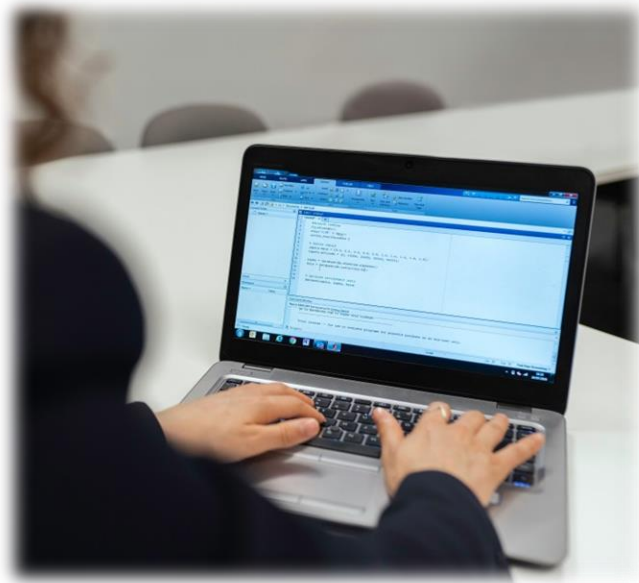# HUMAN CAPITAL FLIGHT ESTIMATION PROBLEM

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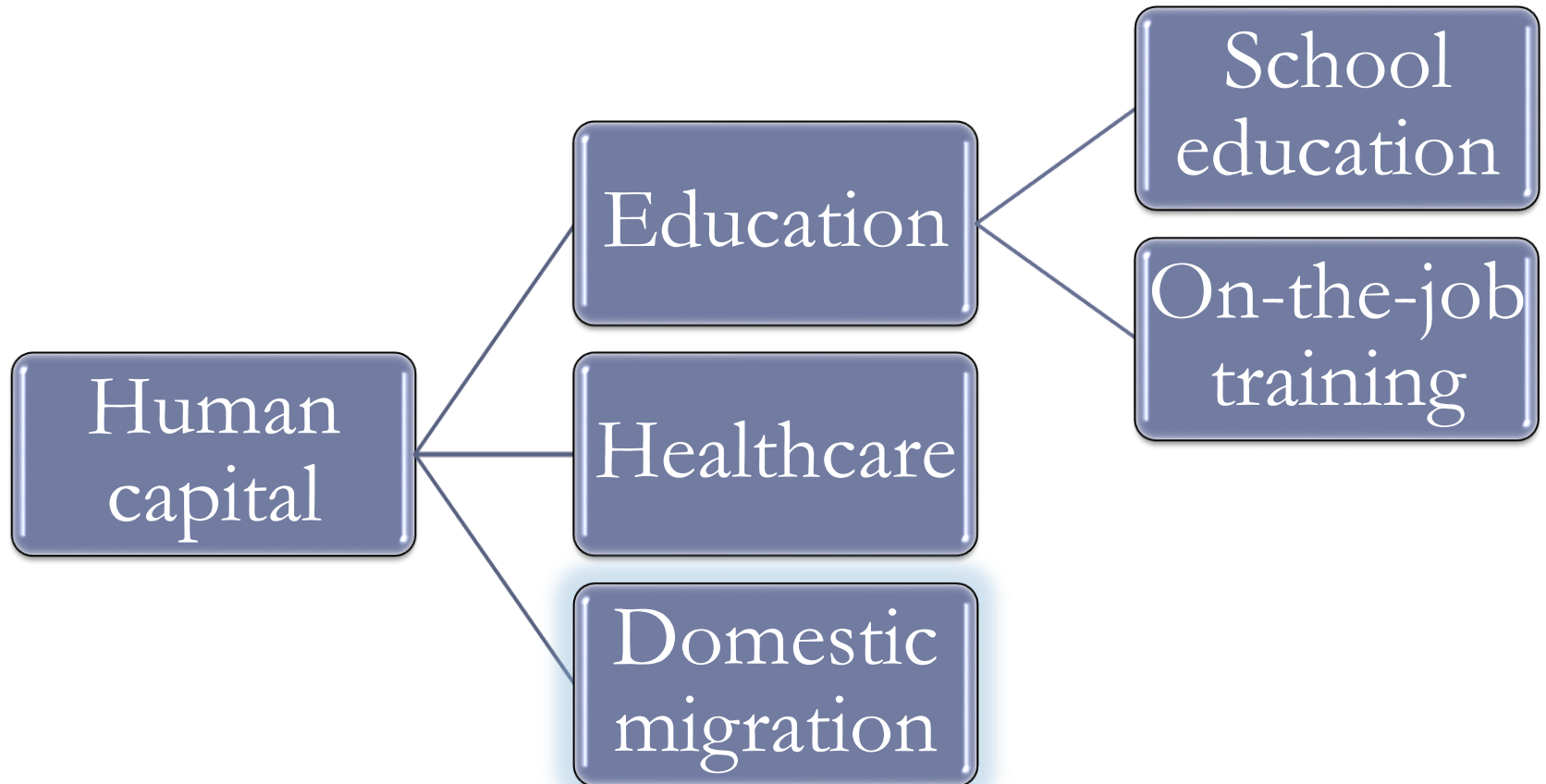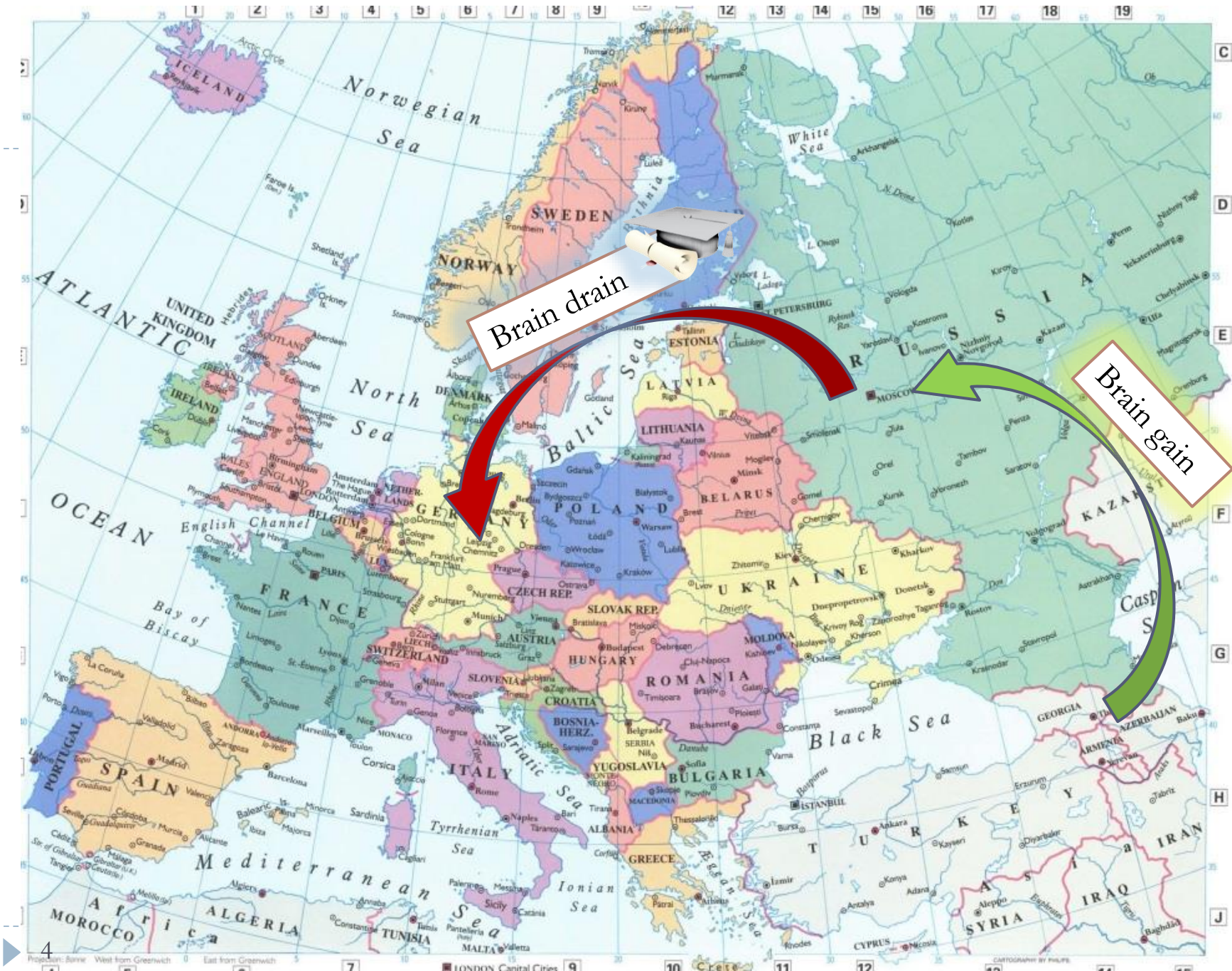
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Human capital is obtained qualities of person which can be strengthened by investments (T. Schultz)

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Human capital ──┬── Education ──┬── School education
                │                └── On-the-job training
                ├── Healthcare
                └── Domestic migration
```

Brain drain

Brain gain

Human capital estimation

Quantity

By indices

Average number of years of education;

Proportion of workers with a certain level of education;

Population coverage with education etc.
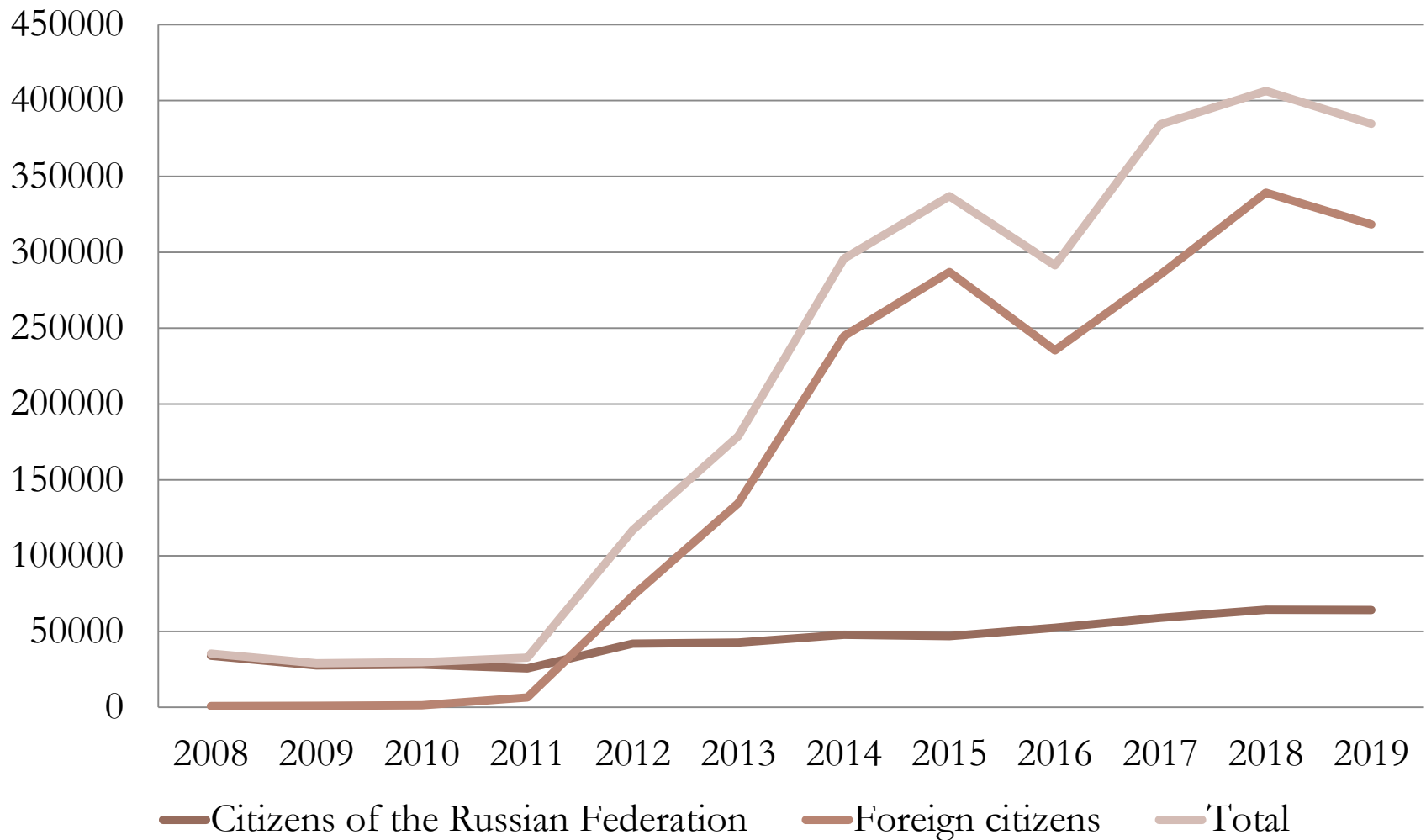
Quality

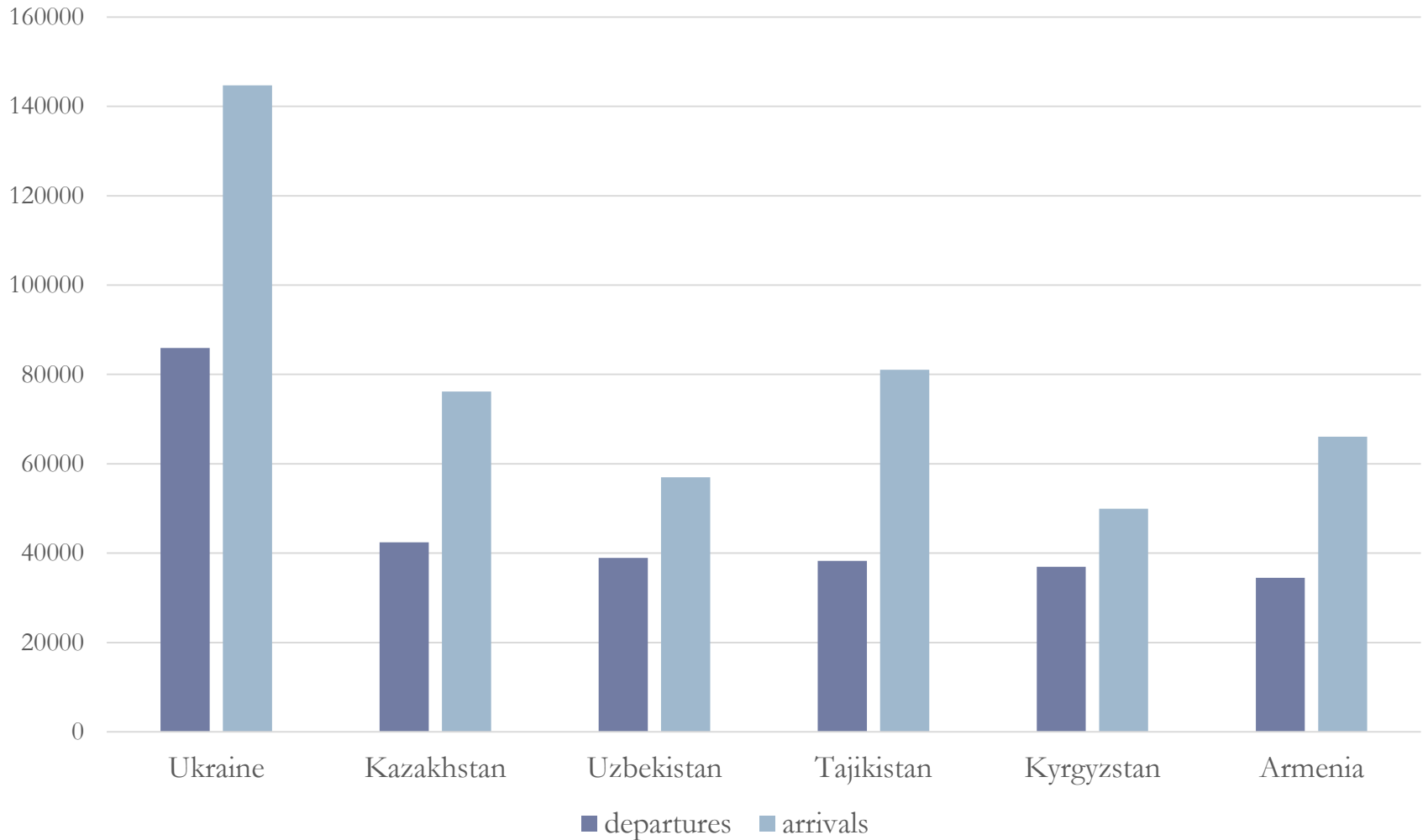**By past expenditures**

Cumulative costs for a human capital formation

Quality

By future income

Present value of future earnings
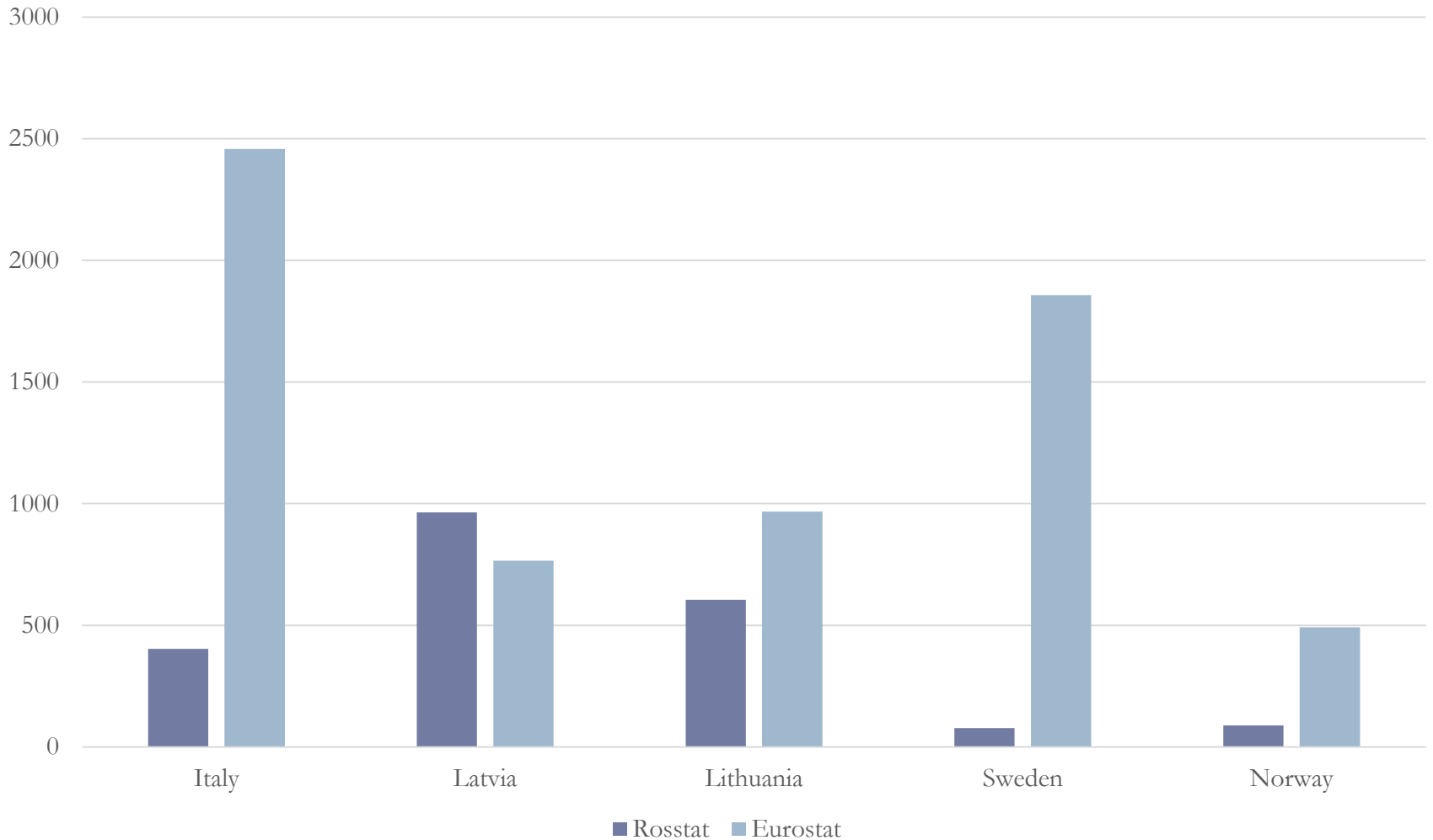
The number of departures from Russia (international migration)

Legend: Citizens of the Russian Federation — Foreign citizens — Total

The number of departures and arrivals in 2019

The number of departures from Russia in 2019

Departures in 2019 by citizenship and reasons of departure

	Citizens of the Russian Federation	Foreign citizens
To study	85.4%	14.4%
To work	93.5%	6.5%
To return to the previous place of residence	97.1%	2.9%
Due to aggravation of interethnic relations	35.0%	65.0%
Due to aggravation of crime situation	90.0%	10.0%
Due to environmental disadvantage	96.0%	0.0%
Due to non-compliance with climatic conditions	95.6%	2.2%
Personal reasons	95.8%	4.2%
Other reasons	85.2%	14.7%
Returned after a temporary absence	14.2%	85.2%
The reason is not specified	75.2%	24.8%

The number of departures of Russian citizens (international migration) by level of education

Legend: ■ Higher education ■ Secondary vocational education ■ Secondary education, no education, not specified
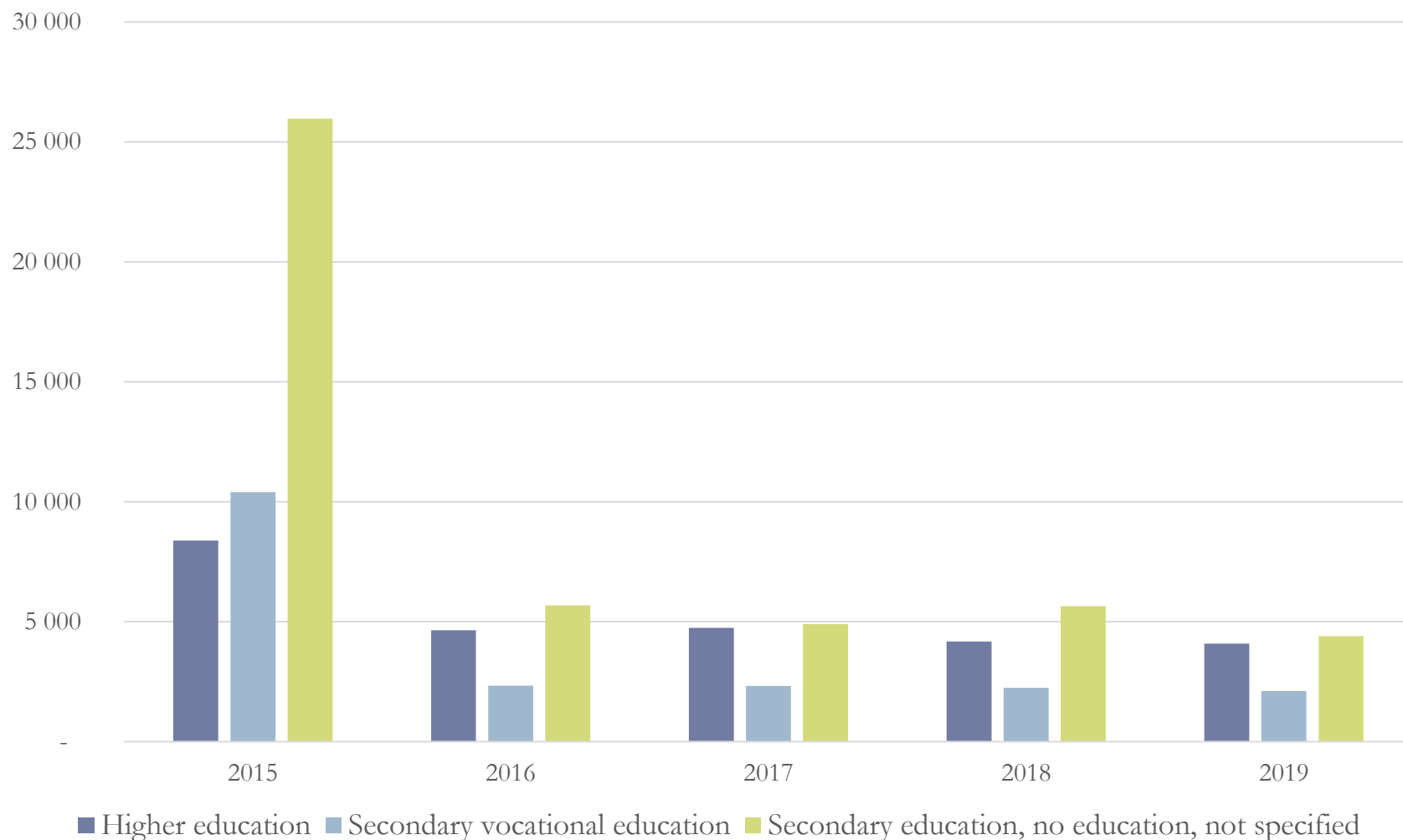
Losses of Human capital put into operation as a result of emigration of Russian citizens in 2015 – 2019, billion rubles (in 2019 prices)

	Total	Due to the departure of people with higher education	Due to the departure of people with secondary vocational education	Due to the departure of people with secondary education
2015	56.1	14.2	9.7	32.1
2016	17.8	8.3	2.2	7.2
2017	17.5	9.0	2.3	6.2
2018	17.7	8.3	2.3	7.1
2019	16.2	8.5	2.1	5.5

Human capital losses, billion rubles (in 2019 prices)
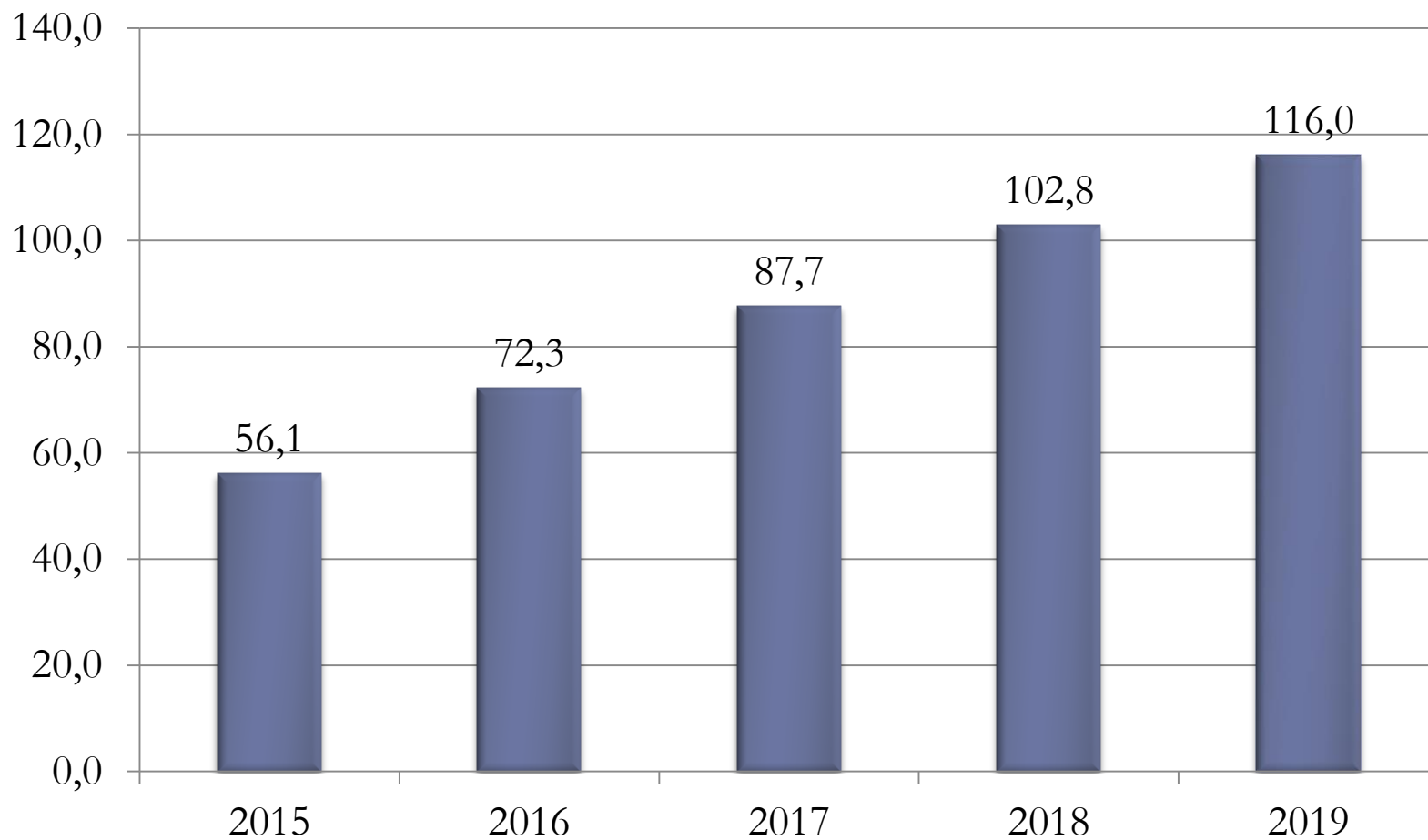
Losses of Human capital put into operation and potential GDP losses as a result of emigration of Russian citizens in 2015 – 2019, billion rubles (in 2019 prices)

	Losses of Human capital put into operation	GDP losses in the year of the departure	Potential GDP losses considering probable 30 more years work
2015	56.1	64.16	1 924.86
2016	17.8	18.28	548.34
2017	17.5	17.66	529.66
2018	17.7	18.33	549.78
2019	16.2	16.40	492.11

Losses of Human capital put into operation are equal to 1% of all human capital put into operation (annually)

Human capital losses are equal to 116 billion rubles (0.2% of all human capital in 2019)

Potential GDP losses are averagely equal to 530 billion rubles (0.5% of GDP)

Gaining of Human capital put into operation as a result of immigration of Russian citizens in 2015 – 2019, billion rubles (in 2019 prices)

	Total	Due to the arrival of people with higher education	Due to the arrival of people with secondary vocational education	Due to the arrival of people with secondary education
2015	55	13	8	34
2016	59	13	8	38
2017	61	13	8	40
2018	51	11	7	34
2019	92	6	3	83

Net human capital gain as a result of the migration process in 2015 – 2019, billion rubles (in 2019 prices)

	Total	Due to the arrival of people with higher education	Due to the arrival of people with secondary vocational education	Due to the arrival of people with secondary education
2015	-1.1	-1.2	-2	2
2016	41	5	6	**31**
2017	44	4	6	**34**
2018	34	3	5	**27**
2019	75	- 3	1	**77**

Conclusion remarks

▸ Improvement of migration statistics. Completeness and detailing

▸ Economic development

▸ Development of immigration programs to attract qualified workers

THANK YOU

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