
Labor Migration in the Baltic States



*An Analysis of History, Likelihood, Causes, and Reduction
With an Emphasis on Brain Drain*



Written by:
Jill Leandro
Janis Christopher Mikits

The views expressed herein are those of the authors and do not reflect the position of the United States Military Academy, the Department of the Army, or the Department of Defense.

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Executive Summary



The purpose of this analysis is to evaluate labor migration in the Baltic States, determine its extent and its causes, and suggest possible policy recommendations designed to confront unsustainable emigration and brain drain.

Due to their small populations, it is difficult to obtain data on emigrants from the Baltic States in their new country of residence. Therefore, this study utilizes data about Baltic residents from the Gallup World Poll and statistical data from the Baltic States and the EU.

The results suggest that current emigration in the Baltic States is driven by perceived economic opportunities and quality of life concerns, such as education and attitudes towards minorities. The dissatisfaction with economic opportunities exists in spite of the recent sustained high growth rates of the Baltic economies. Thus, labor migration and brain drain could metabolize into a much larger problem in the event of an economic downturn.

The suggested policy recommendations focus on improving economic conditions and quality of life concerns within the Baltic States.

Recent Migration Trends

In recent history, migration rates in the Baltic States shifted from net immigration to net emigration. Specifically, the Baltic States had positive net migration from 1960 until 1990, with most of the immigrants coming from other republics within the Soviet Union.

After gaining independence in 1991, the Baltic States experienced negative net migration, with most of the emigrants moving to the countries within the Commonwealth of Independent States (CIS) in order to return to their homeland. This process was facilitated by agreements between the Baltic States and CIS countries that increased the flow of emigrants.¹

Since 2000, the net migration rates have slowed down but continue to be negative. The receiving countries have expanded beyond the traditional CIS countries and now include a significant proportion of Western OECD countries.

Although brain drain is a justified concern and often cited by policymakers, natural population decline (deaths in excess of births) appears to have a much larger effect on the work force. The combination of the two effects is expected to decrease the population in the Baltic States by 15% to 20% by 2050—roughly their 1970 levels.

¹ Latvian Office of Citizenship and Migration Affairs, *Country Report: Latvia, Migration and Asylum- 2003*, (Riga, June 2006), 3.

Key Gallup Findings

Using the Gallup World Poll data, it is possible to assess the likelihood of emigration and the drivers of the desire to emigrate. Approximately 15 – 30% of the general population in each country would choose to emigrate under ideal circumstances. The desire to leave was driven by concerns with economic opportunities and quality of life issues in their country.

Despite widespread concern with brain drain, the most educated and skilled workers were no more likely to want to emigrate than other education levels and workers. However, the Baltic economies need to sustain high growth rates for EU membership requirements, so the loss of any highly educated or skilled worker is a concern. For these target groups, the desire to leave was also associated with concerns about economic opportunities in their country and quality of life issues.

Policy Recommendations

Ultimately, labor emigration and brain drain are addressed through sound economic and social policies that also increase the productivity and stability of a country. Policies that simultaneously address brain drain and general labor emigration improve economic conditions.

Based on the results from the Gallup World Poll, policy recommendations focus on improving economic opportunities and quality of life as the root causes of brain drain and labor migration.

To target improved economic opportunities, the policies recommend facilitating business development through a government advisory body and the provision of low-interest loans and to provide tax incentives to foreign direct investment (FDI) that will utilize highly educated or professional workers.

Such quality of life issues as education, child considerations, and ethnic relations were among the top correlations with desire to leave. To target improved quality of life, policies recommend improving the quality and quantity of state-provided education, developing child care subsidies, and reducing cultural / ethnic tensions through legal reforms.

Most policies require sustained effort over the long-run in order to be successful. However, if effective, the policy recommendations should be either low-cost or revenue-neutral.



Introduction to the Baltic States and Brain Drain



As countries with small populations, the Baltic States are concerned about emigration and especially brain drain.

Introduction

Relatively small changes in labor movements can have a profound impact on the Baltic States' economies due to their small populations. In 2006, Estonia had approximately 1.3 million residents², Latvia had approximately 2.3 million³, and Lithuania had approximately 3.4 million.⁴

Despite strong and sustained economic growth over the past six years, Baltic policymakers are concerned with their future. Continued net migration losses would cause negative macroeconomic effects, particularly if the residents who are leaving constitute brain drain. Because the Baltic States report high levels of completed upper secondary education, when compared to the EU25 as a whole, immigrants are likely to increase the productivity of receiving countries and may be sought to fill shortages due to population decline in other EU countries.⁵ Policymakers fear that their residents will move west to live in wealthier nations with better social welfare programs and employment opportunities.

The focus of this analysis is two-fold: First, the validity of these concerns is assessed through an analysis on labor migration in the Baltic States, with particular concern to brain drain, using current and projected government statistics and recent Gallup polling data. Second, the analysis includes considerations for policymakers who wish to prevent or reduce brain drain.

Definition of Brain Drain

A review of articles on the Baltic States consistently identifies brain drain as an issue that is on the top of the agenda for these communities. As an expression, brain drain became popular in the 1960s when a large amount of educated and skilled labor migrated from poor countries to OECD countries.⁶ The emigration is usually attributed to better pay and living conditions.

It is the emigration and immigration of these highly-skilled workers that is a particular concern of economists interested in a country's current and future productivity since brain drain occurs when a country experiences a consistent loss of its most educated and productive members.⁷ Without these workers, an economy can anticipate a myriad of problems.⁸ Shortages of scientists, engineers, and experts from many other fields can lead to reduced productivity within the economy since these workers provide the expertise necessary for the innovation and functioning of many industries. Additionally, many of these individuals also serve in management capacity and directly influence the productivity of the labor force.

² The Economist Intelligence Unit, *Country Report- Estonia* (London, September 2006), 5.

³ The Economist Intelligence Unit, *Country Report- Latvia* (London, October 2006), 5.

⁴ The Economist Intelligence Unit, *Country Report- Lithuania* (London, October 2006), 5.

⁵ For raw data, see Appendix P: Educational Attainment

⁶ Robin Cohen, *Brain Drain Migration*, available from http://www.queensu.ca/samp/transform/Cohen1.htm#N_1_#N_1; Internet, accessed 4 November 2006.

⁷ Ibid.

⁸ Ibid.

Some countries may be able to fill the labor shortage through immigration. However, it is not just the *quantity* of workers that is important but also the *quality*. When highly-skilled laborers enter the economy, they are more productive and increase the marginal product of labor.⁹ As a result, GDP per capita increases and the population's standard of living increases. If the new laborers are not as skilled as those that leave, the opposite is true: productivity decreases as well as GDP per capita.

For populous and large countries that possess many educated workers, brain drain is usually concerned with the disproportional net, not absolute, loss of educated workers because they tend to receive educated workers as well.

However, in small countries, any departure of highly educated or productive workers not only affects the labor supply but could significantly impact the productivity of the countries. This is because small economies do not tend to attract well-educated immigrants. The three Baltic States, having a combined population of approximately 7 million, fall into this category.

Recent examples of severe brain drain in small countries include Guyana, Jamaica, Haiti, and Grenada, where as much as 80% of the target population emigrates.¹⁰ In these cases, many emigrants are moving to escape major political instability, poverty, crime, or warfare. There are few applicable lessons relevant to the Baltic States, but Ireland provides a good model as a medium-sized economy that reversed its brain drain problem.¹¹

A Brief Case Study on Success: How did Ireland do it?

For centuries, Ireland was not able to produce enough food or employment for its citizens. Now, Dublin has traffic jams for the first time, and the Emerald Isle is being dubbed the *Celtic Tiger*. What brought about this dramatic change? There were five main factors that promoted such transformation.

First, political and economic stability were established inside the country. The Northern Ireland issue was essentially stabilized. Economically, the ascension of Ireland to the EU, and the subsequent adoption of the euro provided external fiscal and monetary stability.

Second, Ireland laid the base for a successful economy using its own funds as well as the EU's to improve infrastructure (for example, road creation and widening). Additionally, Ireland made great strides in educating its population by establishing free education through the post-secondary level.

Third, Ireland set favorable tax measures and intellectual property rights for corporations, which attracted foreign direct investment. The firms that brought the direct investment also provided managerial oversight and technical knowledge about their respective industries. Therefore, Ireland not only benefited from the inflows of traditional capital but the inflows of human capital.

Fourth, after successfully establishing an economic base with attractive opportunities for employment, Ireland was able to repatriate many Irish that had left for such opportunities. The repatriates reconstituted the brain drain and also added value to the population through knowledge and experience gathered from experiences outside Ireland.

Fifth, Ireland liberalized its immigration laws. This was presented as a duty for the many years that the Irish left their own country in search for better opportunities. However, it also served to attract many productive immigrants from the Eastern Europe that fueled its economy.

⁹ Gregory N. Mankiw, *Macroeconomic 6ed.* (New York: Worth Publishers, 2006), 48.

¹⁰The World Bank, *International Migration, Remittances, and the Brain Drain*, ed. Caglar Ozden, Maurice Schiff (New York: Palgrave Macmillan, 2005), 187.

¹¹ Federal Reserve Bank of New York, "Curbing Unemployment in Europe: Are there lessons from Ireland and the Netherlands?", *Current Issues in Economics and Finance*, Vol 7, No 5 (May 2001): 3-4.



Historical Background of Migration in the Baltic States



From 1960 to 1990, other republics within the Soviet Union provided a primary source and destination for Baltic migration. Since 1990, Western European nations have become a significant destination for Baltic migration as well as the former Soviet Union republics.

Transition from Communist to Post-Communist States

Prior to their independence in 1991, the Baltic States had relatively little emigration, and there was fairly consistent immigration from the 1960s forward.¹² Therefore, emigration was not a significant concern in the three countries.

The net result in the 1990s was emigration, and the trend has continued on a diminishing course up to the present (with the exception of a slightly positive rate for Estonia in 2000-2003).¹³ More recently, emigrants list destinations within the EU in addition to the CIS.¹⁴

CRUDE RATE OF MIGRATION, 1960 – 2004
(per 1,000 in population)

Year	EU-25	ESTONIA	LATVIA	LITHUANIA
1960/64	0.6	6.7	8.1	1.0
1965/69	-0.1	7.3	5.0	1.3
1970/74	0.2	5.3	4.9	2.7
1975/79	0.6	3.6	3.5	1.2
1980/84	0.0	3.5	2.5	1.9
1985/89	0.9	2.3	4.3	3.5
1990/94	1.9	-14.4	-10.5	-5.0
1995/99	1.4	-6.2	-3.5	-6.3
2000	1.5	0.2	-2.3	-5.8
2003	4.3	0.2	-0.4	-1.8
2004	4.0	-0.2	-0.5	-2.8

¹² For raw data, see Appendix F: Crude Rate of Net Migration, 1960 - 2004.

¹³ Ibid.

¹⁴ For raw data, see Appendix H: Latvia External Long-term Migration by Country

Past Immigration

Very little data is available on immigration into the Baltic States during the communist era. As the chart on the previous page illustrates, there was steady immigration into the Baltic States until 1990, and this was then followed by consistent emigration.

It is likely that the pre-1990 growth was driven by Soviet-sponsored relocation programs that encouraged immigration to the Baltic States from other republics.¹⁵ However, after 1990, Russia, Ukraine, and Belarus continued to send large flows to the Baltics, and they continue to do so today. Presumably, much of this was repeat migration and was still tied to family members living in and out of the Baltic States.

Past Emigration

Although recent emigration losses are small, the Baltic States experienced significant population losses during the 1990s. The dynamic of independence from the Soviet Union produced large numbers of emigrants.

The majority of Baltic emigrants from 1990 – 2000 were Russian-speaking residents of the Baltic States (likely active and retired military personnel and their families¹⁶) who returned to more traditional Russian-speaking countries, such as Belarus, the Russian Federation, and Ukraine.¹⁷ During this period, the Russian Federation and Baltic States instituted a policy of permitting ethnic Russians to move back to Russia with full citizenship.¹⁸

Because the Baltic States are so small and have very distinct cultures and languages, they are very concerned about cultural preservation.¹⁹ Russian-speaking emigrants do not concern them as much as ethnic Baltic emigration.

¹⁵ Orjan Sjoberg and Tiit Tammaru, “Transitional Statistics: Internal Migration and Urban Growth in Post-Soviet Estonia”, *Europe-Asia Studies*, vol.51, no.5 (Jul 1999): 823.

¹⁶ Lithuanian Office of Citizenship and Migration Affairs, *Country Report: Lithuania, Migration and Asylum- 2003*, (Vilnius, June 2006), 8.

¹⁷ Julda Kielyte, *Migration Movements in the Baltic States: Determinants and Consequences*, WIDER Conference on Poverty, International Migration and Asylum, (September 2002), 4, available from <http://www.wider.unu.edu/conference/conference-2002-3/conference%20papers/kielyte.pdf>; Internet, accessed 7 November 2006.

¹⁸ Latvian Office of Citizenship and Migration Affairs, *Country Report: Latvia, Migration and Asylum- 2003*, (Riga, June 2006), 3.

¹⁹ Eiki Berg, “Local Resistance, National Identity and Global Swings in Post- Soviet Estonia”, *Europe-Asia Studies*, vol.54, no.1 (Jan 2002): 112.



The Baltic States' accession into the EU in 2004 facilitated labor migration to Western European countries and increased the threat of brain drain.

Labor Movement in the European Union

In 2004, the Baltic States joined the European Union (EU). The creation of the EU has enabled workers to cross national borders within the member nations with relative ease. The EU community law allows for the free movement of labor within member states, which “includes the right for EU nationals to move to another EU Member State to take up employment and to establish themselves in the host State with their family members.”²⁰

As a result, migration flows within the EU-25 are now a matter of internal mobility. This has enabled all Baltic citizens to emigrate easily from their country in pursuit of education or professional opportunities.²¹ Although Baltic governments and policymakers enjoy some of the economic and labor opportunities presented by EU membership, they are concerned about a potentially devastating loss of their most productive and educated workers to the rest of the European community.

EU Membership and Emigration

The relative ease of migration within the EU has increased the potential for brain drain from the Baltic States, although major net annual losses have yet to occur. The net emigration for the Baltic States was approximately 10,000 people in 2005, or 0.14% of the total population.²²

Although this number is relatively small, it must be viewed in the context of a larger trend of population decline (see page 39 for a detailed explanation). Projections on population growth from 2005 to 2050 estimate that the Baltic States will lose between 15% and 20% of their current population through emigration losses and natural population decline.²³ These rates are the biggest losses of all the EU-25 countries.

**POPULATION GROWTH PER EU COUNTRY
2005 - 2050**

	Population Growth	2005 Population (in millions)	Est. 2050 Population (in millions)
EU-25	-2%	458.5	449.8
LITHUANIA	-15%	3.4	2.9
ESTONIA	-15%	1.3	1.1
LATVIA	-17%	2.3	1.9

²⁰ Nuria Diez Guardia and Karl Pichelmann, “European Commission Paper: Labour Migration Patterns in Europe: Recent Trends, Future Challenges”, (Brussels: 2006), No. 256: 15-16.

²¹ Zsolt Nyiri, “Baltic Youths Yearn for Greener Pastures”, available from <http://www.gallupworldpoll.com/content/?ci=25096>; Internet, accessed 11 November 2006.

²² For raw data, see Appendix F: Net Migration, Including Corrections and Appendix G: Population Projections

²³ For raw data, see Appendix E: Population Growth per EU country, 2005 – 2050.

EU Membership and the CIS

Another integral aspect of EU membership for the Baltic States is how it affects immigration and emigration of non-nationals. In order to take advantage of the EU's free movement of labor policy, it is necessary to be an EU national and have a passport from an EU member country.²⁴

Because of this, CIS nationals who do not have dual citizenship in one of the Baltic States but live in one do not qualify for this privilege. Therefore, their only alternatives are to stay in the Baltic States or return to their home country. Given the fact that the Baltic States currently have a higher GDP per capita than the CIS countries (shown in the chart below), this may slow emigration of CIS citizens.

GDP PER CAPITA IN PPP²⁵
(in 2006 U.S. dollars)

Country	2000	2001	2002	2003	2004	2005	2006
Estonia	10,258.29	11,225.22	12,299.77	13,440.41	14,925.77	16,414.03	17,802.22
Latvia	7,599.72	8,451.98	9,226.08	10,177.39	11,396.12	12,666.09	13,874.60
Lithuania	8,698.76	9,543.66	10,400.89	11,685.11	12,856.29	14,158.42	15,442.91
Russia	7,205.42	7,812.72	8,337.69	9,182.86	10,149.89	11,041.07	11,904.32
Ukraine	4,157.22	4,691.26	5,069.15	5,712.30	6,618.12	7,212.66	7,816.19
Belarus	4,809.13	5,177.69	5,561.94	6,104.94	6,987.84	7,710.65	8,229.94

The percentage of CIS nationals in each Baltic State is presented below. It is interesting to note that Estonia has an overwhelming percentage of Russian nationals compared to the other two countries.

NUMBER AND PERCENT OF CIS NATIONALS IN THE BALTIC STATES²⁶
(2001 DATA)

Population Component	Estonia	Latvia	Lithuania
Belarus Nationals	1,438	791	2,180
Russian Federation Nationals	86,067	19,236	13,376
Ukraine Nationals	2,867	1,514	1,556
CIS Population Subtotal	90,372	21,541	17,112
Baltic Country Population Total	1,370,052	2,377,383	3,483,972
CIS Percent of Total Population	6.60%	0.91%	0.49%

²⁴ Nuria Diez Guardia and Karl Pichelmann, "European Commission Paper: Labour Migration Patterns in Europe: Recent Trends, Future Challenges", (Brussels: 2006), No. 256: 15-16.

²⁵ International Monetary Fund, World Economic Outlook Database, September 2006 available from <http://www.imf.org/external/pubs/ft/weo/2006/02/data/index.aspx>; Internet; accessed 20 February 2007.

²⁶ European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/extraction/retrieve/en/theme1/>; Internet; accessed 17 March 2007.

Additionally, the data from the Gallup World Poll shows that CIS countries were highly represented in the samples.

Nationality	Estonia		Latvia		Lithuania		Baltic Total	
Lithuanian	2	0%	17	2%	902	89%	921	31%
Estonian	661	66%	2	0%	0	0%	663	22%
Russian	279	28%	309	31%	47	5%	635	21%
Latvian	5	0%	582	58%	5	0%	592	20%
Polish	0	0%	22	2%	39	4%	61	2%
Ukranian	28	3%	20	2%	4	0%	52	2%
Finnish	8	1%	0	0%	0	0%	8	0%
Other	15	1%	35	4%	8	1%	58	2%
Don't know	5	0%	13	1%	10	1%	28	1%
Total	1,003	100%	1,000	100%	1,015	100%	3,018	100%

However, the difference in percentage of CIS nationals may also be influenced by the fact that each country has different citizenship requirements. For example, Lithuania's low representation of CIS nationals may reflect its policies that allow more rapid transition to citizenship for immigrants entering Lithuania.



Current Trends in Baltic Migration



While net emigration remains relatively high in Lithuania, it is declining in all three Baltic States.

As the chart below illustrates, the migration trend toward net losses has slowed substantially since the major losses that occurred in the 1990s:

NET MIGRATION, INCLUDING CORRECTIONS²⁷
(IN THOUSANDS)

Year	EU-25	ESTONIA	LATVIA	LITHUANIA
1994	590.40	-20.90	-22.80	-24.20
1995	690.20	-15.60	-13.80	-23.70
1996	610.90	-13.40	-10.10	-23.40
1997	2,086.28	-6.90	-9.40	-22.40
1998	543.09	-6.70	-5.80	-22.10
1999	939.13	-1.10	-4.10	-20.70
2000	678.22	0.20	-5.40	-20.30
2001	1,316.92	0.10	-5.20	-2.50
2002	1,804.63	0.20	-1.80	-1.90
2003	1,983.15	0.30	-0.90	-6.30
2004	2,032.76	0.13	-1.08	-9.61
2005	1,663.43	0.14	-0.56	-8.78

Current Emigration

The identity of receiving countries of Baltic emigrants provides important clues to understanding the reasons behind emigration. It appears that a substantial amount of the current emigration continues toward Russian-speaking countries.²⁸ This is likely due to cultural tendencies and political policies that encourage Russian-speaking residents to return to Russia from the Baltic States.²⁹

For example, 83% of Latvia's emigrants in 1995 went to those countries.³⁰ While the largest single destination for all three countries is still the Russian Federation,³¹ some of that emigration has since shifted west to include Ireland, the United Kingdom, and Germany.³²

²⁷ For raw data, see Appendix D: Net Migration, Including Corrections

²⁸ For raw data, see Appendix H: Latvia External Long-term Migration by Country

²⁹ Latvian Office of Citizenship and Migration Affairs, *Country Report: Latvia, Migration and Asylum- 2003*, (Riga, June 2006), 3.

³⁰ For raw data, see Appendix H: Latvia External Long-term Migration by Country

³¹ For raw data, see Appendix H: Latvia External Long-term Migration by Country

³² For raw data, see Appendix I: Intra-Europe Migration, According to Country of Emigration, 2003

As an example, the major receivers of Latvian emigrants are provided below, where three of the CIS countries (Russia, Ukraine, and Belarus) constitute almost 50% of Latvia's emigrants as late as 2005.

LATVIA: EXTERNAL LONG-TERM EMIGRATION³³
(BY COUNTRY AND YEAR)

Country	1995	2000	2001	2002	2003	2004	2005
Belarus	1,100	516	536	138	92	111	113
Germany	813	927	1,030	210	170	233	261
Denmark	6	14	18	52	40	53	40
Estonia	54	51	81	120	44	75	73
Finland	10	12	20	60	33	50	30
United Kingdom	6	86	29	62	40	113	189
Lithuania	317	142	114	176	80	152	104
Norway	2	10	9	38	18	25	35
Russian Federation	11,558	3,350	2,894	1,279	938	1,057	764
Sweden	12	27	52	60	45	72	47
Ukraine	1,127	420	387	222	166	173	141
United States	662	497	432	254	136	169	166
Total	16,512	7,131	6,602	3,262	2,210	2,744	2,450

The majority of emigrants are working age, have a secondary education and a skilled occupation.³⁴ It is interesting to note that a substantial number of emigrants declare “no occupation.” With currently available data, it is unknown whether these include a significant number of homemakers since slightly more women emigrate than men.³⁵ However, the main reason listed for emigration is work, so it is possible that they are truly without occupation.³⁶

However, these flows do not necessarily indicate a brain drain. If highly educated and productive people emigrate in pursuit of a better standard of living, they would most likely immigrate to a country with a higher per capita GDP than their own because the higher level indicates a relatively higher standard of living. According to the available data, a large portion of the emigration flows are towards those countries with lower per capita GDP.³⁷

Country	2000	2001	2002	2003	2004	2005	2006
Estonia	10,258.29	11,225.22	12,299.77	13,440.41	14,925.77	16,414.03	17,802.22
Latvia	7,599.72	8,451.98	9,226.08	10,177.39	11,396.12	12,666.09	13,874.60
Lithuania	8,698.76	9,543.66	10,400.89	11,685.11	12,856.29	14,158.42	15,442.91
Russia	7,205.42	7,812.72	8,337.69	9,182.86	10,149.89	11,041.07	11,904.32
Ukraine	4,157.22	4,691.26	5,069.15	5,712.30	6,618.12	7,212.66	7,816.19
Belarus	4,809.13	5,177.69	5,561.94	6,104.94	6,987.84	7,710.65	8,229.94

³³ Ibid.

³⁴ For raw data, see Appendix J: Emigrants Who Do Not Declare Their Departure, by Educational Attainment, 2001-2005

³⁵ For raw data, see Appendix K: Emigration by Age Group and Sex, 2003

³⁶ For raw data, see Appendix J: Emigrants Who Do Not Declare Their Departure, by Educational Attainment, 2001-2005

³⁷ International Monetary Fund, World Economic Outlook Database, September 2006 available from <http://www.imf.org/external/pubs/ft/weo/2006/02/data/index.aspx>; Internet; accessed 20 February 2007.

Current Immigration

The losses of Baltic States residents can be mitigated by the inflow of immigrants. Ideally, the immigrants are at least as productive, if not more productive, than those who are leaving.

After gaining independence, there was a surge of immigration from the west when exiled diasporas returned to the Baltic States, such as current Latvian President Vaira Vīķe-Freiberga. Since this initial wave, immigrants have primarily originated from countries with which they share a border (Russian Federation, Belarus, and other Baltic States) as well as Ukraine, Germany, and the United States.³⁸ There are slightly more male immigrants than female immigrants, and they tend to be between 20 and 40 years old. The data currently available do not describe their previous occupation.

As previously mentioned, most of the immigration prior to 1990 came almost exclusively from former republics of the U.S.S.R. It is not surprising that this continues today, and that the countries that receive the most emigrants from the Baltic States are also the source of the largest flows into the Baltic States. As an example, the countries that are major sources of Latvian immigrants are listed below.

LATVIA: EXTERNAL LONG-TERM IMMIGRATION³⁹
(BY COUNTRY, YEAR, AND INDICATOR)

Country	1995	2000	2001	2002	2003	2004	2005
Belarus	141	119	121	91	65	59	54
Germany	79	73	83	76	79	170	189
Denmark	3	11	13	30	22	52	52
Estonia	76	35	46	56	69	87	134
Finland	0	3	12	23	38	49	69
United Kingdom	24	16	26	20	35	111	128
Lithuania	67	59	50	162	146	246	264
Norway	3	1	11	8	17	24	18
Russian Federation	1,839	727	503	372	354	274	282
Sweden	20	19	9	26	40	32	68
Ukraine	206	185	162	133	92	81	71
United States	86	60	59	82	105	118	122
Total	2,799	1,627	1,443	1,428	1,364	1,665	1,886

Conclusions

Despite large numbers of emigrants in the early nineties, overall net emigration in all three Baltic States appears to be declining and approaching zero. Additionally, a large portion of the emigration is directed towards countries with lower GDP per capita and would not constitute large and immediate brain drain.

³⁸ For raw data, see Appendix H: Latvia External Long-term Migration by Country

³⁹ Ibid.



Introduction to the Gallup World Poll and Labor Migration



Ideally, if you could afford it, would you like to move permanently to another country or would you prefer living in our country?

Using the Gallup World Poll to Assess Likelihood and Drivers of Labor Migration

The question posed above is the central component to the analysis on labor migration.⁴⁰ It is used to assess the likelihood of labor migration in each country as well as the drivers of the desire to emigrate.

Utilizing this set of Gallup data, there is no *direct* way to measure what drives Balts to emigrate, since those who actually left the country would not be sampled. Furthermore, any samples from other countries that receive Baltic emigrants are extremely unlikely to include a significant number of Balts due to their relatively small populations.

Given this constraint, the analysis focused on current residents of the Baltic States, the likelihood of their emigration, and drivers of their potential emigration. Although not an exact measure, responses on well-being, satisfaction, and expectations can provide valuable insight on migration.

Even though an affirmative response is far from actual emigration, this hypothetical question provides an idea of what residents may do, given ideal circumstances. It is also a useful indication of the kind of residents who would at least consider emigration, as the first step in a long process.

Given the focus on brain drain as well as labor migration, the results of the analysis are separated into three sections so that policymakers within each country have the information necessary to reduce emigration of the general population as well as those who would constitute brain drain.

- Population as a whole
- Population by educational attainment
- Population by job type

Measuring the Likelihood of Emigration

The likelihood of emigration was analyzed using the percentage of respondents who expressed a preference to move. The responses were evaluated for the population as a whole, as well as by education and job type.

Measuring Drivers of Emigration

The drivers of emigration were analyzed using correlations between a preference to move and other responses. The top five positive and negative correlations are reported in each section (for sample sizes greater than 30). The analysis focused on poll questions that assess existence of satisfaction but not intensity. Thus, two responses may have the same correlation with the desire to emigrate but individuals may strongly prefer one over another.

The Gallup World Poll

The Gallup World Poll covers 95% of the Earth's adult population through the polling of more than 130 countries and territories. The questionnaires covered a multitude of topics: demographics, well-being, economic status and more. Approximately 1,000 residents were sampled in each country, and this sampling was designed to incorporate a variety of residents.

The questionnaires for the three Baltic countries were fairly similar, thus allowing cross-country comparisons, and included questions related to labor migration.

⁴⁰ This question was asked the same way for all three countries, but the possible responses are slightly different for Latvia. This difference is not assumed to have an impact on the analysis. See Appendix R for exact phrasing.



Summary of Key Findings



Approximately 20% of Estonian and Latvian residents expressed a preference to emigrate, while about 30% of Lithuanians expressed a preference to emigrate.

In terms of traditional measures of brain drain (education and job type), the most highly educated and skilled workers are no more likely to want to emigrate than other educational levels and job types.

The key drivers of desire to emigrate are perceived economic opportunities; demographic variables, such as marital status and ethnicity; and dissatisfaction with quality of life variables, such as education and the area where respondents live as a place for families with children.

General Population

Approximately 20% of Estonian and Latvian residents expressed a preference to emigrate, while about 30% of Lithuanians expressed a preference to emigrate. By country, the key drivers are:

- Estonia: perceived economic opportunities, marital status, nationality, education and housing
- Latvia: perceived economic opportunities and satisfaction with the city / area where respondents live, both generally and as a place for families with children
- Lithuania: perceived economic opportunities, marital status, religion, and health

Education

Approximately 15% of respondents with a higher / PhD degree expressed a preference to emigrate in Estonia and Latvia, while about 23% of such respondents in Lithuania expressed a preference to emigrate. In comparison to other levels of educational attainment, this group was no more likely (and possibly less likely) to want to move. The key drivers for higher / PhD respondents in each country are as follows:

- Estonia: perceived economic opportunities, such as ability to do one's best at work; nationality; and satisfaction with the quality of health care, quality of education, and the city as a place to make friends
- Latvia: perceived economic opportunities; not identifying with one's city, region, or country; and satisfaction with the quality of goods and the area as a place for ethnic minorities, families with children, and young, single people
- Lithuania: perceived lack of purpose, both in life and at work

Job Type

Approximately 15% of respondents with a professional job expressed a preference to emigrate in Estonia and Latvia, while about 25% of such respondents in Lithuania expressed a preference to emigrate. In comparison to other job types, this group was no more likely (and possibly less likely) to want to move. The key drivers for professional respondents in each country are:

- Estonia: perceived economic opportunities, such as standard of living and the free market economy, nationality, marital status, and identification with the country
- Latvia: perceived economic opportunities, whether their area is a good place to make friends, freedom to express political views, and whether one's opinions count at work
- Lithuania: whether respondents thought their life had an important purpose, how they viewed the quality of education, and their satisfaction with the area where they live

Introduction to Emigration for the General Population

Approximately 20% of Estonian and Latvian residents expressed a preference to emigrate, while about 30% of Lithuanians expressed a preference to emigrate.

In Estonia, the key drivers are perceived economic opportunities within Estonia, marital status, nationality, and satisfaction with education and housing.

In Latvia, the key drivers are perceived economic opportunities within Latvia and satisfaction with the area where respondents live, both in general and as a place for families with children.

In Lithuania, the key drivers are perceived economic opportunities within Lithuania, marital status, religion, and personal health.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows:

	<u>Choose to Stay</u>	<u>Choose to Leave</u>	<u>DK/Ref</u>
Estonia	74%	19%	7%
Latvia	75%	20%	6%
Lithuania	64%	31%	6%

Approximately 20% of Estonian and Latvian residents expressed a preference to emigrate, while about 30% of Lithuanians expressed a preference to emigrate (margin of error $\pm 2\% - 3\%$).⁴¹

This chart reveals two key points for policymakers:

- For all Baltic countries, the majority of respondents would prefer to stay in their own country, although Lithuania has a significantly lower rate of desire to stay than both Estonia and Latvia (Appendix Q offers several potential reasons why more Lithuanians have a preference to move).
- However, the percentage of respondents expressing a preference to move is large enough that, should a substantial percentage of them actually decide to move, the impact would be extremely harmful to the country's standard of living and economic growth.

The high percentage of respondents who would choose to leave exists despite sustained strong economic growth since gaining political independence, which in itself was a long-time goal of ethnic Balts. Due to EU membership, it is unlikely that policymakers can raise effective barriers to emigration. Thus, policymakers must identify the root causes of the desire to emigrate, which are discussed in the next section, and create policies designed to counteract them, which are discussed on page 37.⁴²

⁴¹ See Appendix S for the breakdown by specific emigration location preference.

⁴² In the following analysis, the question asking respondents whether they planned to move was often a top correlation. The correlation is reported, but not discussed in detail, since it is so similar to the original question.

Estonia: What are the drivers of emigration for the general population?

The key drivers are perceived economic opportunities within Estonia, marital status, nationality, and satisfaction with education and housing.

Perceived economic opportunities

The strongest negative and positive correlations compared opportunities in Estonia to those in other countries. If the respondent thought that there were always better opportunities outside of Estonia, there was a strong positive correlation with desire to leave. Alternatively, if the respondent thought that there were as many opportunities in Estonia as in any other country, there was a strong negative correlation with desire to leave.

Demographics: marital status and nationality

Marital status reveals no surprises: being single is positively correlated with a desire to leave while being married is negatively correlated with a desire to leave.

Nationality provides a more interesting insight. Being an Estonian national is negatively correlated with a desire to leave while being a Russian national is positively correlated with a desire to leave. Because Russian nationals are affected by Baltic restrictions on political participation and social benefits for non-citizens, this is not surprising. However, most Russian nationals do not have EU passports, so they cannot actually leave Estonia for other EU countries that have higher standards of living.

Quality of Life: housing and education

Other factors that were positively or negatively correlated with desire to leave were education and housing. These factors are enormously important the daily lives of people. Education is often seen as a way to a better life. Therefore, dissatisfaction with higher education systems can drive away the brightest individuals.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.487	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.215	Nationality? Russian.
0.193	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.187	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Worse.
0.186	Marital status? Single.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.138	Are you satisfied or dissatisfied with current housing, dwelling, or place you live? Satisfied.
-0.140	Marital status? Married.
-0.141	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Same.
-0.246	Nationality? Estonian.
-0.373	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Latvia: What are the drivers of emigration for the general population?

The key drivers are perceived economic opportunities within Latvia and satisfaction with the area where respondents live, both in general and as a place for families with children.

Perceived economic opportunities

Like Estonia, the strongest negative and positive correlations compared opportunities in Latvia to those in other countries. If the respondent thought that there were always better opportunities outside of Latvia, there was a strong positive correlation with desire to leave. Alternatively, if the respondent thought that there were as many opportunities in Latvia as in any other country, there was a strong negative correlation with desire to leave.

Additionally, respondents who did not think that people can get ahead by working hard were positively correlated with a desire to leave while those who thought that they could get ahead by working hard were negatively correlated with a desire to leave.

Quality of life: satisfaction with the city / area

How respondents viewed the city or area where they live affected their desire to leave. Both satisfaction and dissatisfaction toward the city or area have strong correlations.

More specifically, the desire to leave was correlated to whether respondents thought the city or area was a good place to live for families with children. This is a particularly interesting variable because concern for children implies a concern for their future. It is possible that respondents who are dissatisfied with their area as a place for families with children are concerned with the future generations’ prospects in life.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.439	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.196	Are you satisfied or dissatisfied with the city or area where you live? Dissatisfied.
0.187	Is the city or area where you live a good place or not a good place to live for families with children? Not a good place.
0.171	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.163	Can people in this country get ahead by working hard, or not? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.161	Is the city or area where you live a good place or not a good place to live for families with children? A good place.
-0.168	Can people in this country get ahead by working hard, or not? Yes.
-0.181	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.
-0.213	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.390	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Lithuania: What are the drivers of emigration for the general population?

The key drivers are perceived economic opportunities within Lithuania, marital status, religion, and personal health.

Perceived economic opportunities

Similar to Estonia and Latvia, there is a strong positive correlation between desire to move and respondents who feel that there are always better opportunities outside their home country rather than inside.

Demographics: marital status and religion

As for marital status, being single is positively correlated with a desire to move while being married is negatively correlated with a desire to move. Additionally, being widowed was also negatively correlated with a desire to move. This is not surprising since the average age of widowed respondents in Lithuania is about 70 years old.⁴³ Religion also reported strong correlations. *Not* having religion as an important part of the daily life was positively correlated with a desire to move while being religious was negatively correlated.

Quality of life: personal health

Personal health was one of the top positive and negative drivers. However, the results were unexpected: being satisfied with personal health was positively correlated with a desire to move while being dissatisfied with personal health was negatively correlated with a desire to move. The response may reflect an appropriate quality of health care in Lithuania. In other words, people who are ill may not want to move away from a healthcare system that can help heal them. Another possibility is that people who are ill do not want to move because the strain may be too difficult for them.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.310	Marital status? Single.
0.240	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.239	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.234	Are you satisfied or dissatisfied with your personal health? Satisfied.
0.171	Is religion an important part of your daily life? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.177	Marital status? Married.
-0.181	Marital status? Widowed.
-0.189	Is religion an important part of your daily life? Yes.
-0.213	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.219	Are you satisfied or dissatisfied with your personal health? Dissatisfied.

⁴³ Age was reported several groups 20, 30, 40, 50, 60, and 82. Thus, while the average age of widowed respondents is approximate, it is still much higher than the average age of the population and other groups of marital status.



Approximately 20% of Estonian and Latvian residents expressed a preference to emigrate, while about 30% of Lithuanians expressed a preference to emigrate.

In Estonia, the key drivers of a desire to move for higher / PhD respondents are perceived economic opportunities, such as ability to do one's best at work; nationality; and satisfaction with the quality of health care, quality of education, and the city as a place to make friends.

In Latvia, the key drivers of a desire to move for higher / PhD respondents are perceived economic opportunities; not identifying with one's city, region, or country; and satisfaction with the quality of goods and the city as a place for ethnic minorities, families with children, and young, single people.

In Lithuania, the drivers of a desire to move for higher / PhD respondents are a perceived lack of purpose, both in life and at work. The drivers negatively associated with a desire to emigrate suggest productive employment and financial security. Additionally, some ties to the area had positive correlations with the desire to move while satisfaction with education had a negative correlation.

Defining Highest Level of Educational Attainment

There were six possible codes to the question asking respondents for their level of education. Four of these options were utilized, excluding don't know and no answer responses. Although not a perfect measure, this provides an idea of the education level for their respondents:

- (1) Higher / PhD degree includes those individuals that report completing a college degree.
- (2) Incomplete higher degree includes those individuals that report attending college at some time but not completing a college degree.
- (3) Secondary / secondary vocational includes those individuals that report completing secondary education but not attending college.
- (4) Incomplete secondary includes those individuals that report not completing secondary education.



Focus on Brain Drain: Respondents with a Higher / PhD Degree

Due to the particular interest in brain drain, this analysis concentrated on the higher degree / PhD group, which likely represents the most highly productive workers and highest concentration of human capital (knowledge). Compared to other groups, higher degree / PhD respondents have the highest levels of formal education. If a significant percentage of this group emigrated, the potential consequences for each country would be disastrous economically and administratively.

	Estonia: What is the likelihood of emigration by educational attainment?	
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In each level of educational attainment, approximately 15 – 20% of respondents would choose to emigrate.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by highest completed level of educational attainment:⁴⁴

	<u>Choose to Stay</u>	<u>Choose to Leave</u>	<u>DK/Ref</u>
Higher/ PhD	78%	15%	8%
Inc. Higher	77%	18%	6%
Sec / Sec voc	74%	19%	7%
Incomplete Secondary	68%	23%	8%
All Respondents	74%	19%	7%

The results are fairly similar across each level of educational attainment: approximately 20% of category would choose to move.

Those who did not complete their secondary education had the highest percentage of respondents that expressed a desire to move and while those with a higher / PhD degree had the lowest percentage.

However, with a margin of error $\pm 2 - 6\%$ for all educational levels, there is no statistically significant difference in response rates among the different levels of educational attainment.

⁴⁴ See Appendix T for breakdown by specific emigration location preference.



	Estonia: What are the drivers of emigration for higher / PhD respondents?	
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The key drivers are perceived economic opportunities, such as ability to do one's best at work; nationality; and satisfaction with the quality of health care, quality of education, and the city as a place to make friends.

The root causes of the desire to move for all educational levels are reported in Appendix U. This section will expand on the correlations for respondents who have completed a higher degree or PhD.

Perceived economic opportunities

Among the most educated Estonians, respondents are more likely to choose to leave if they feel that there are always better opportunities outside the country. Alternatively, they are least likely to choose to leave if they feel that that the opportunities are the same. Furthermore, there is a negative correlation when respondents have opportunities to do their best at work or when they are planning to start their own business in the near future.

Demographics: nationality

Being a Russian national is positively associated with a desire to leave while being an Estonian national is negatively associated with a desire to leave.

Quality of life: health care, education, and city / area

Several quality of life variables were strongly correlated with desire to leave. Negative correlations were found for dissatisfaction with quality health care, educational system, and the city / area as a place to make friends. Satisfaction with university education was negatively correlated with desire to leave.

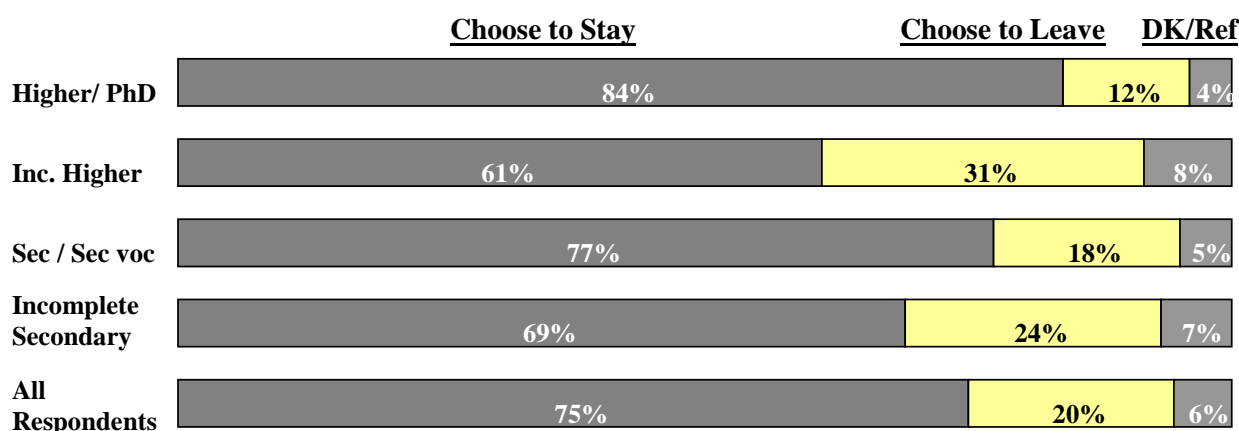
POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.533	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.272	Nationality? Russian.
0.245	Are you satisfied or dissatisfied with the availability of quality health care? Dissatisfied.
0.241	Are you satisfied or dissatisfied with the educational system or the schools? Dissatisfied.
0.240	In the city/area where you live, are you satisfied or dissatisfied with the city or area where you live as a place to make friends? Dissatisfied

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.178	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Same.
-0.200	In your work, do you have an opportunity to do what you do best, every day, or not? Yes
-0.257	Nationality? Estonian.
-0.284	Are you planning to start your own business in the next 12 months or not? Yes.
-0.514	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and you would like to continue to live and work here.

Latvia: What is the likelihood of emigration by educational attainment?

In each level of educational attainment, the percentage of respondents who would choose to emigrate ranged from 12% to 31%, with higher / PhD respondents least likely to choose to move.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by highest completed level of educational attainment:⁴⁵



Compared to Estonia, there is more variation across each level of educational attainment: between 12% and 31% of each educational level would choose to move.

Respondents with a higher education / PhD degree had the lowest rate of desire to leave while those who did not complete their higher education had the highest percentage of respondents that expressed a desire to move.

The margin of error ranges between $\pm 3\%$ and $\pm 11\%$ for all educational levels, which could narrow the gap between incomplete higher and other education levels.

⁴⁵ See Appendix T for breakdown by specific emigration location preference.



	Latvia: What are the drivers of emigration for higher / PhD respondents?	
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The key drivers are perceived economic opportunities; not identifying with one's city, region, or country; and satisfaction with the quality of goods and the city as a place for ethnic minorities, families with children, and young, single people.

The root causes of the desire to move for all educational levels are reported in Appendix U. This section will expand on the correlations for respondents who have a higher degree or PhD.

Perceived economic opportunities

The availability of opportunities in Latvia has strong correlations among its most educated respondents. There is a positive correlation with desire to leave when respondents think that there are always better opportunities outside of Latvia and a negative correlation when respondents think that there are the same opportunities inside Latvia. Additionally, respondents who think you can get ahead in Latvia by working hard are less likely to want to move.

Demographics: self-identification

Respondents who do not identify themselves with their city, region, country, or nationality are positively correlated with a desire to move. Perhaps they do not feel the strong ties to their culture and community, and risk less distress from separation due to emigration. Those who reported owning a home are less likely to move. Since owning a home requires a major investment in the community, it is not surprising that these people would be less likely to move.

Quality of life: satisfaction with the city / area

The most-educated Latvian respondents were concerned with various aspects of the city as a place to live. For example, thinking that the city was not a good place for racial / ethnic minorities (an important issue in the Baltic States) or for young, single people was associated with a desire to leave. Those who thought that the area was a good place for families with children and young, single people displayed a negative correlation with desire to leave. Finally, those who thought that domestic goods were inferior to imported goods were positively correlated with a desire to leave.

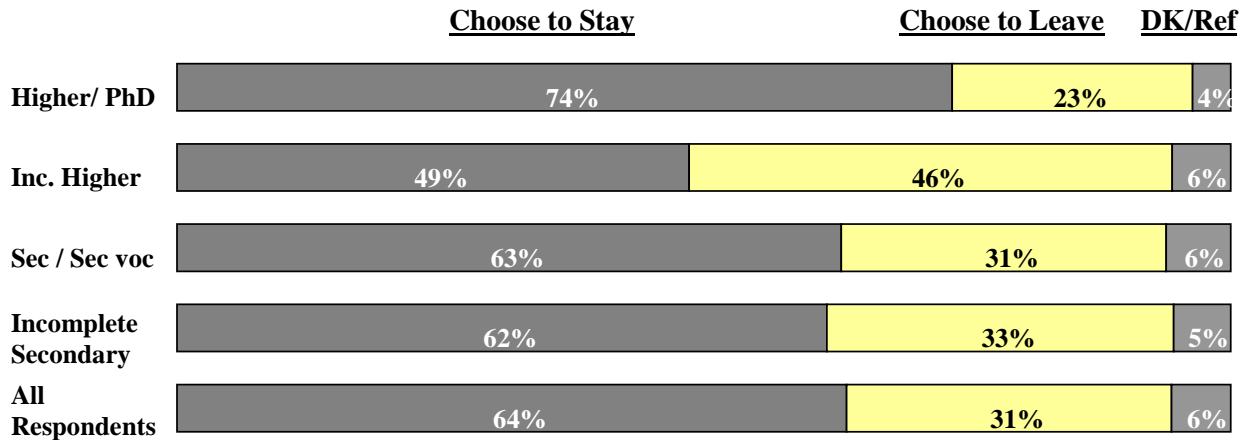
POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.466	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.352	Would you say goods produced in this country are of superior, same, or inferior quality than most imported goods? Inferior.
0.326	Is the city or area where you live a good place or not to live for racial/ethnic minorities? Not.
0.317	With which [group] do you personally identify most strongly? None (out of country, region, city, nationality, don't know, none).
0.263	Is the city / area where you live a good place or not a good place to live for young, single people? Not.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.160	Do you own or rent your home? Own.
-0.175	Is the city or area where you live a good place or not a good place to live for families with children? A good place.
-0.179	Is the city or area where you live a good place or not a good place to live for young, single people? A good place.
-0.189	Can people in this country get ahead by working hard, or not? Yes.
-0.292	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and you would like to continue to live and work here.

Lithuania: What is the likelihood of emigration by educational attainment?

In each level of educational attainment, the percentage of respondents who would choose to emigrate ranged from 23% to 46%, with higher / PhD respondents least likely to choose to move.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by highest completed level of educational attainment:⁴⁶



Like Latvia, Lithuania has variation among the different levels of educational attainment: between 23% and 46% of each educational level would choose to move.

Those who did not complete their higher education had the highest percentage of respondents that expressed a desire to move while those who did complete their higher education had the lowest percentage.

The margin of error is $\pm 4 - 12\%$ among the educational levels, which could narrow the gap between incomplete higher and other education levels.

⁴⁶ See Appendix T for breakdown by specific emigration location preference.



	Lithuania: What are the drivers of emigration for higher / PhD respondents?	
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The drivers associated with a desire to emigrate suggest a perceived lack of purpose, both in life and at work. The drivers negatively associated with a desire to emigrate suggest productive employment and financial security. Additionally, some ties to the area had positive correlations with the desire to move while satisfaction with education had a negative correlation.

The root causes of the desire to move for all educational levels are reported in Appendix U. This section will expand on the correlations for respondents who have a higher degree or PhD.

Perceived economic status

It is interesting to note that the most educated respondents have a strong positive correlation between desire to emigrate and feeling that there is a lot of wasted time at work, which suggests under-utilization of this segment of the population. There is also a strong negative correlation between the desire to leave and *not* feeling that there is a lot of wasted time at work.

Demographics: identification with the area

Surprisingly, satisfaction with local government displayed strong correlations with the desire to leave. Additionally, respondents who identified most strongly with the city (rather than country, region, etc.) were more likely to leave.

Quality of life: purpose, education, housing, and religious strife

Several correlations related to various aspects of the respondents' quality of life. Respondents who had sufficient housing and did not experience religious strife in their area were negatively correlated with a desire to leave. Also, respondents who were satisfied with domestic university education (as compared to those available in Western countries) were less likely to choose to leave. Those who thought their life did not have an important purpose were more likely to want to move, suggesting that they want to look for meaning elsewhere.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.221	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.198	At work do you feel you have a lot of wasted time, or not? Yes.
0.197	With which [group] do you personally identify most strongly? City (out of country, region, city, nationality, don't know, none).
0.197	Do you feel your life has an important purpose or meaning? No.
0.181	Please indicate how good of a job the city/local government does? Excellent.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.196	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Same.
-0.197	Have there been times in the past 12 months when you did not have enough money to provide adequate shelter/housing? No.
-0.198	At work do you feel you have a lot of wasted time, or not? No.
-0.220	Are religious beliefs ever a source of trouble between people in the city or area where you live? No.
-0.289	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.



Introduction to Emigration by Job Type



By type of job, between 15% and 40% of respondents expressed a preference to emigrate, with professional workers either less likely or as likely to want to move as other types of jobs.

In Estonia, the key drivers of a desire to move for professional respondents are perceived economic opportunities, such as standard of living and the free market economy, and demographic characteristics, such as nationality, marital status, and identification with the country.

In Latvia, the key drivers of a desire to move for professional respondents are perceived economic opportunities and quality of life variables, such as whether the city is a good place to make friends, freedom to express political views, and whether one's opinions count at work.

In Lithuania, the key drivers of a desire to move for professional respondents are related to quality of life issues: whether respondents thought their life had an important purpose, how they viewed the quality of education, and their satisfaction with the city / area where they live.

Defining Job Type

There were fourteen possible codes to the question asking respondents for their type of job.⁴⁷ For the purposes of this analysis, the fourteen categories were grouped into four smaller groups that, although not a perfect measure, prove an idea of the skill level for their respondents:

- (1) Professional includes careers that require substantial formal training or substantial success in business, such as lawyers, doctors, scientists, engineers, executives, officials, and business owners.
- (2) Service workers include a wide variation of careers that are focused in the service sector, such as police officers and firemen; but also include secretaries, postal clerks, salespeople, waiters, barbers, janitors, and maids.
- (3) Skilled labor includes careers that involve a trade where a substantial amount of training and certification is required, such as carpenters, electricians, mechanics, and repair workers.
- (4) Manual labor includes careers that require relatively little professional training or education, such as taxi drivers, assembly line worker, farmers, and fishermen.



Focus on Brain Drain: Professional Workers

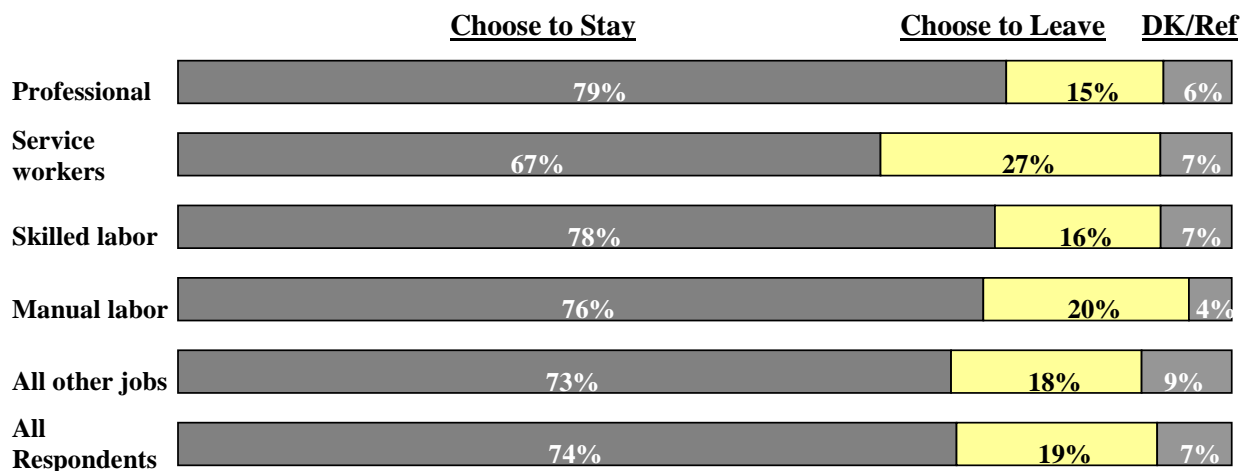
Due to the particular interest in brain drain, this analysis concentrated on the professional group, which likely represents the most highly productive workers and highest concentration of human capital (knowledge). Compared to other groups, professional workers have the highest levels of formal job training and represent a substantial portion of the managerial and executive experience for each country. As business owners are included in this designation, it also represents many of the innovators and entrepreneurs in each country. If a significant percentage of this group emigrated, the potential consequences for each country would be disastrous economically and administratively.

⁴⁷ We did not include “other jobs,” “don’t know” and “refused” responses in our analysis since they did not have easily definable characteristics that would be useful to policymakers.

Estonia: What is the likelihood of emigration by job type?

In each type of job, approximately 15 – 27% of respondents would choose to emigrate.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by type of job:⁴⁸



The results are fairly similar across each type of job: about 20% of category would choose to move.

Professional workers reported the lowest rates of choosing to leave at 15% while service workers reported the highest rates of wanting to leave at 27%

However, with a margin of error $\pm 4 - 8\%$ for all job types, there is no statistically significant difference in response rates among the different kinds of jobs.

⁴⁸ See Appendix V for breakdown by specific emigration location preference.



	Estonia: What are the drivers of emigration for professional workers?	
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The key drivers are perceived economic opportunities, such as standard of living and the free market economy, and demographic characteristics, such as nationality, marital status, and identification with the country.

The root causes of the desire to leave for all types of jobs are reported in Appendix W. This section will expand on the correlations for respondents with a professional job.

Perceived economic opportunities

The availability of opportunities in Estonia has strong correlations among its professional respondents. There is a positive correlation with desire to leave when respondents think that there are always better opportunities outside of Estonia and a negative correlation when respondents think that there are the same opportunities inside Estonia. Interestingly, respondents who provided no response about free market reforms benefit to Estonia are less likely to want to move.

Demographics: self-identification, nationality, and marital status

Respondents who identify most strongly with their country rather than city, region, or nationality are positively correlated with a desire to move. Perhaps they do not feel the strong ties to their culture and community, and risk less distress from separation due to emigration.

Being a Russian national is positively associated with a desire to leave while being an Estonian national is negatively associated with a desire to leave. However, being an Estonian national is negatively associated with a desire to leave.

It is not surprising that being married is negatively associated with a desire to leave since there are many risks and uncertainties associated with moving that a spouse would not want to accept or force the other to accept.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.497	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.337	With which [group] do you personally identify most strongly? Country (out of country, region, city, nationality, don't know, none).
0.253	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.238	Nationality? Russian.
0.219	Right now, do you feel your standard-of-living is getting better or getting worse? Better

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.185	Do you personally feel that the creation of free market economy, that is largely free from state control, is right or wrong for our country's future? No answer
-0.187	Marital status? Married.
-0.235	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.243	Nationality? Estonian.
-0.398	There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Latvia: What is the likelihood of emigration by job type?

In each type of job, the percentage of respondents who would choose to emigrate ranged from 15% to 23%.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by type of job:⁴⁹

	<u>Choose to Stay</u>	<u>Choose to Leave</u>	<u>DK/Ref</u>
Professional	83%	15%	3%
Service workers	71%	23%	6%
Skilled labor	71%	23%	6%
Manual labor	77%	18%	5%
All other jobs	74%	20%	6%
All Respondents	75%	20%	6%

The results are fairly similar across each type of job: about 20% of category would choose to move.

Professional workers reported the lowest rates of choosing to leave at 15% while service workers and skilled labor reported the highest rates of wanting to leave at 23%

However, with a margin of error $\pm 4 - 9\%$ for all job types, there is no statistically significant difference in response rates among the different kinds of jobs.

⁴⁹ See Appendix V for breakdown by specific emigration location preference.



	Latvia: What are the drivers of emigration for professional workers?	
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The key drivers are perceived economic opportunities and quality of life variables, such as whether the city is a good place to make friends, freedom to express political views, and whether one’s opinions count at work.

The root causes of the desire to leave for all types of jobs are reported in Appendix W. This section will expand on the correlations for respondents with a professional job.

Perceived economic opportunities

The availability of opportunities in Latvia has strong correlations among its professional respondents. There is a positive correlation with the desire to leave when respondents think that there are always better opportunities outside of Latvia and a negative correlation when respondents think that there are the same opportunities inside Latvia. Additionally, respondents who do not plan to start their own business in the next 12 months are negatively correlated with a desire to leave while those that refuse to answer the same question are positively correlated with a desire to leave.

Quality of life: family and friends, opinions at work, political views

The ability to express opinions in Latvia has strong correlations among its professional respondents. There is a positive correlation with the desire to leave when respondents believe that most people are afraid to express their political views and there is a negative correlation when respondents feel that their opinions matter at work.

The ability to depend on friends and family is negatively correlated with the desire to leave. This may be due to the safety that this dependability provides. If respondents were to move, they would be separated from their friends and family. Thus, they would most likely lose much of the security provided by their friends and family

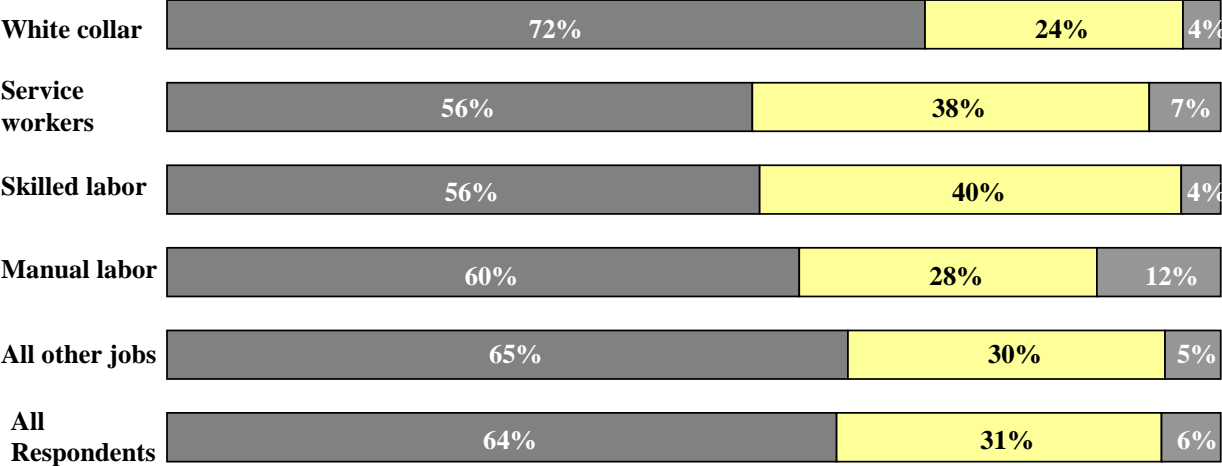
POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.490	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.274	Are you planning to start your own business in the next 12 months or not? Refused.
0.260	Do you think that economic conditions in the city or area where you live are getting better or getting worse? Worse.
0.260	In your opinion, how many people in our country, if any, are afraid to openly express their political views? Most people.
0.232	At work, do your opinions seem to count, or not? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.154	At work, do your opinions seem to count, or not? Yes.
-0.172	Are you planning to start your own business in the next 12 months or not? No.
-0.179	With which [group] do you personally identify most strongly? Nationality (out of country, region, city, nationality, don't know, none).
-0.186	If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not? Yes.
-0.340	There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Lithuania: What is the likelihood of emigration by job type?

In each type of job, the percentage of respondents who would choose to emigrate ranged from 24% to 40%, with white collar as the least likely to choose to move and skilled labor as the most likely.

When respondents were asked whether they would choose to stay in their own country or choose to move to another one, the breakdown was as follows by type of job:⁵⁰



Compared to Estonia and Latvia, there are higher rates of choosing to move as well as greater variation among different types of job.

White collar workers reported the lowest rates of choosing to leave at 24% while skilled laborers reported the highest rates of wanting to leave at 40%

With a margin of error $\pm 4 - 11\%$ for all job types, this narrows the gap between white collar and skilled labor.

⁵⁰ See Appendix V for breakdown by specific emigration location preference.



	Lithuania: What are the drivers of emigration for professional workers?	
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The key drivers of a desire to emigrate were primarily related to demographics and quality of life issues: whether respondents would recommend their city to a friend as a place to live, thought their life had an important purpose, how they viewed the quality of education, and the quality of their city as a residence for minorities.

The root causes of the desire to leave for all types of jobs are reported in Appendix W. This section will expand on the correlations for respondents with a professional job.

Demographics: educational attainment

A respondent’s level of education was highly correlated with a desire to leave but the results may not be what others would expect. Respondents with incomplete higher education degrees were positively correlated while respondents with completed higher / PhD degrees were negatively correlated with a desire to leave. This suggests under-utilization of those who have the second highest level of education.

Quality of life: satisfaction with city, satisfaction and purpose in life

Several correlations related to various aspects of the respondents’ quality of life. Respondents who would not recommend their city to a friend as a place to live were positively correlated with a desire to leave whereas respondents who would recommend their city to a friend were negatively correlated. Also, respondents who were dissatisfied with university education (as compared to that in another country) were more likely to choose to leave. Finally, those that thought their city was a good place to live for minorities were negatively correlated with a desire to leave.

The respondents who were satisfied with their work were negatively correlated with a desire to leave. Additionally, those who thought their life did not have an important purpose were more likely to want to move, suggesting that they want to look for meaning elsewhere.

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.297	Would you recommend the city or area where you live to a friend or associate as a place to live, or not? Not.
0.272	Do you feel your life has an important purpose or meaning? No.
0.200	What is your highest completed level of education? Incomplete higher.
0.199	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Worse.
0.188	Is the city or area where you live a good place or not to live for racial/ethnic minorities? Not.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.186	What is your highest completed level of education? Higher degree / PhD.
-0.197	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.
-0.213	Is the city or area where you live a good place or not to live for racial/ethnic minorities? A good place.
-0.214	Are you satisfied or dissatisfied with your job or the work you do? Satisfied.
-0.233	Would you recommend the city or area where you live to a friend or associate as a place to live, or not? Yes.



Introduction to Policy Recommendations



Based on historical analysis and Gallup World Poll results, policymakers can target emigration and potential brain drain directly through policies that focus on improved economic opportunities within the Baltic States as well as improved quality of life.

Criteria for the Policy Recommendations

Based on the historical analysis and Gallup World Poll results, there is now a clearer view of the emerging migration trends and the drivers of these trends. Thus, policymakers can effectively target labor migration and brain drain through policies that meet at least one of two main goals:

- Improve economic opportunities
- Improve quality-of-life standards

These goals are designed to counteract emigration to richer Western European countries, which have higher standards of living and more social benefits than the Baltic States.

Policy Recommendations

This paper will present five possible policies, which are described in more detail on the following pages.

To target improved economic opportunities, policies recommend (1) facilitating business development through a government advisory body and the provision of low-interest loans and (2) providing tax incentives to foreign direct investment (FDI) that will utilize highly educated or professional workers.

Quality of life issues, such as education, child considerations, and ethnic relations, were among the top correlations with the desire to leave. To target improved quality of life, policies recommend (1) improving the quality of state-provided education, (2) developing child-care subsidies, and (3) reducing cultural / ethnic tensions through legal reforms.

Evaluating the Policy Recommendations

In order to aid policymakers in deciding what they should implement, all policies are evaluated over four criteria: feasibility, cost, long-term impact, and effectiveness.



Goal #1: Improve Economic Opportunities within the Baltic States



Proposed policy: Facilitate business development through a government advisory body and a system of low-interest loans.

This policy will be conducted in two parts. First, a government office will be established to advise potential entrepreneurs and guide them through the legal and financial process for starting a new business. In addition to a website, physical offices throughout the country will provide the opportunity for face-to-face interaction. Second, the government will provide low-interest loans for individuals who are in good financial standing and have projects that are approved based on a sound business plan.

Issue addressed

The general population, in addition to the target education and labor respondents, indicated that economic opportunities within the country and the ability to get ahead by working hard are major drivers in the desire to emigrate or remain in the country. The government can address both of these concerns through a policy that provides business advice and financial assistance for entrepreneurs. Increased entrepreneurial activities provide an incentive for hard work and more jobs within the economy.

Evaluation

Feasibility: As an advantage, this program is very feasible and easy to implement, and there is low political risk. However, it will not generate immediate positive results since this policy is intended to provide assistance for business development that will create benefits in the long run.

Cost: The estimated administrative costs of this program are low since they include only the physical office and staff. The upfront funds required for the loans will vary with scope of implementation. These loans will be repaid with interest, which can then be used to either defray the administrative costs or increase the supply of available funds. These initial costs should be viewed in the context that an increased taxable business base may eventually increase tax revenues.

Long-term Impact: The major impact of this policy is a long-term endeavor. It is designed to increase the innovation, productivity, and efficiency of the economy through increased small business creation. This serves to reward those that work hard and are successful, but it also provides additional employment opportunities within the country.

Effectiveness: This policy will be effective since it is relatively low cost in the long-run and addresses the economic concerns presented in the results from the Gallup World Poll. The increased economic activity and managerial experience gained from the encouraged entrepreneurial activity may also encourage additional FDI within the country.



Goal #1: Improve Economic Opportunities within the Baltic States



Proposed policy: Provide tax incentives and government-sponsored infrastructure development for FDI that utilizes potential brain drain groups.

This policy provides tax incentives and the necessary infrastructure development in order to attract foreign direct investment in industries that heavily utilize the potential targets of brain drain. In order to ensure local employment, the government could impose mandatory hiring quotas for local nationals but this seems unnecessary given the disparity in wages between the Baltic States and the nations that would provide the FDI.

Issue addressed

This policy increases economic opportunities in two ways. First, it attracts new FDI into the economy and spurs continued growth. Second, it provides employment and internship opportunities for the potential brain drain groups and aims to keep them in the country after completing their education.

Evaluation

Feasibility: Setting up the structure for this program is quite feasible, but the effect may be limited since the Baltic States already compete vigorously for FDI and there is a limit to the incentives they can offer. There might be some political risk: although any improvements to the infrastructure serve to improve the economy as a whole, local industry may complain about preferential treatment for foreign firms. However, this policy could also be extended to new construction by domestic firms if their development plans are considered effective enough.

Cost: While the infrastructure development ought to be minimal given the small size of the countries and lack of remote areas, it does represent actual outlays by the government that must be budgeted. In contrast, while the tax incentives do not represent actual outlays by the government, they do represent foregone possible tax revenues. However, the FDI might not actually occur without the incentives, and in this case, the country is still not receiving tax revenues. This issue can be addressed by tailoring the tax incentives to last a specific time period and, eventually, economic growth created by the FDI may offset potential revenue losses.

Long-term Impact: The long-term impact of this policy is potentially very significant. If the Baltic States can attract the correct FDI, they can continue to grow their economies with foreign capital and management knowledge while also employing and maintaining a larger share of the potential brain drain groups. Furthermore, once the new companies are established the whole economy will benefit through increased economic activity and opportunities.

Effectiveness: If successful, this policy will be very effective in halting brain drain and general labor emigration. However, the effectiveness may be limited by the available funds and political commitment of the government.



Goal #2: Improve Quality of Life in the Baltic States



Proposed policy: Improve the quality of education through strengthened teacher certification in the Baltic States and increase the opportunities to receive a higher level of education through government assistance.

This policy has two parts. First, the government would strengthen instructor certification requirements to ensure that those who instruct students are technically competent. This would not require additional funds or infrastructure. In order to ease the transition, current instructors would be allowed a time period (approximately five years) in order to comply while new instructors would be required to comply immediately.

Second, the government would provide free or subsidized advanced education to applicants. The applicant would be required to finish the degree within a specified period of time and with a predetermined minimum grade point average. Upon accepting the grant, the applicant would also agree to work in the sponsoring country for a minimum period of years following graduation. If concerns about living expenses arise, the administration may also consider providing a stipend in order to allow the student to concentrate solely on their studies.

Issue addressed

The general and target populations for the Baltic States indicated that the domestic opportunities for quality education, specifically at the university level, were a major driver in their desire to emigrate or stay within country. This policy addresses the need to increase education opportunities and quality for the Baltic States. Additionally, it increases the productivity of the Baltic economies by increasing the quantity of people with higher education degrees.

Evaluation

Feasibility: This policy is very feasible since it requires very little sunk costs or infrastructure. The program can be implemented for the short or long term. Monitoring compliance of the residence requirement after graduation may prove to be difficult, and policymakers must be prepared to consider the political feasibility of any penalties for lack of compliance.

Cost: Policymakers can tailor the size and scope of the program to fit the availability of funds. Thus, costs can range from small to large, depending on implementation. However, the size of the program will also likely affect its impact.

Long-term Impact: The long-term impact of this policy has very strong possibilities. If the countries provide a quality system for people to increase their skills and knowledge, it will increase the productivity of the economy and provide better opportunities for employment.

Effectiveness: This policy is effective for two reasons. First, it addresses the concern for increased education opportunities. Second, the costs of tuition will be recovered through increased tax revenue from the increased wages of the recipients and from the increased tax base generated from the growth in the economy.



Goal #2: Improve Quality of Life in the Baltic States



Proposed policy: Provide subsidies for child care.

This policy would provide subsidies for child care that are proportional to the numbers of hours worked. The subsidy would only be available for households where all adults are employed. Certification from the employer would be sufficient for presentation to the child care facility. The government would develop a metric that would measure the amount of assistance provided based on the hours worked by the parent with the fewest number of employment hours. The subsidy would require quarterly renewal in order to verify employment.

Issue addressed

The general population in addition to the professional and higher/ PhD groups expressed a concern for the quality of the city / area as a place for families with children. This concern is compounded by declining fertility rates, which are a major driver of population decline. This policy aims to address these concerns by lowering the cost of raising children and increasing opportunities for parents to seek employment.

Evaluation

Feasibility: This policy is very feasible and relatively simple to administer. However, costs could be prohibitive, which raises political concerns. Thus, policymakers should scale the project (at least initially) within the appropriate budget range and ensure that these funds are distributed effectively.

Cost: The costs for this policy could be quite high, but they could be contained by creating subsidy ceilings since the actual subsidies represent the majority of the costs associated with this policy. The required infrastructure and administrative costs to manage funds will be minimal.

Long-term Impact: The long-term impact of this policy is potentially large if it could increase the perceived quality of the country for families with children. If the policy succeeds in encouraging labor participation, it also increases economic activity within the countries. Finally, the policy may facilitate higher fertility rates and help reverse current population decline.

Effectiveness: The overall effectiveness of this program could prove to be disappointing. Presumably, the subsidy will provide an incentive for having children or entering the labor market, but it may not be large enough to solicit a large response. Additionally, people choose not to have children or enter the labor market for reasons other than the costs of child care, so the program's impact on personal decisions is limited. This problem can be mitigated by additional studies that identify the most effective recipients of the subsidies.



Goal #2: Improve Quality of Life in the Baltic States



Proposed policy: Strengthen anti-discrimination laws and reform immigration and citizenship laws.

In order to improve the quality of life and economic opportunities for immigrants and ethnic minorities, the policy would strengthen anti-discrimination laws and punishments for individuals and businesses that do not abide by the laws. This policy would also reform existing immigration and citizenship laws in order to facilitate immigration and assimilation. Considerable focus would be placed on immigrants and minorities from the CIS.

Issue addressed

This policy addresses the quality of life for immigrants and ethnic minorities within the Baltic States. Both groups indicated a desire to emigrate from the Baltic States because they felt that the Baltic States were not good places to live for ethnic minorities.

Evaluation

Feasibility: Financially, this policy is very feasible, but there are political concerns. There is a desire to maintain cultural identity within the Baltic States, and there are current animosities towards immigrants from the CIS.

Cost: The financial costs for initiating this policy are small. It requires adjustment to current policies but does not require additional resources.

Long-term Impact: This policy could have a significant long-term impact if the Baltic States are able to reverse the desire of recent immigrants and minorities to emigrate. Reduced emigration from these groups will lessen emigration rates for the Baltic States. Furthermore, improved conditions for these groups may also increase immigration flows and improve the population projections for the future.

Effectiveness: The overall effectiveness of this program could prove to be disappointing. People may not change their attitudes or actions towards immigration regardless of new policies and laws. Additionally, if the public fear of cultural dilution is too strong at this time to accept a large influx of immigrants, the program will not be effective.



Another Key Issue for Policy Action: Population Decline



Brain drain is likely to be a smaller problem than general population decline. By 2050, the Baltic States are expected to lose between 15% and 20% of their current population.

Past Population Growth

In addition to brain drain, much attention throughout the developed world has focused on the problems of an aging and shrinking population because they are expected to face these problems within the next decades. However, the Baltic States are already experiencing this problem.

Although recent emigration losses are small, the Baltic States have already experienced significant population losses during the 1990s due to Russian, Ukrainian, and Belorussian repatriation. As the chart on total population growth illustrates below, there was steady growth in the Baltic States until 1990. Since then, its growth rates have been much larger than that of the EU-25.⁵¹

COUNTRY	1960	1970	1980	1985	1990	1995	2000	2004	2005
Population (in thousands)									
EU-25	376,423	406,870	426,081	431,993	438,410	445,871	450,379	457,189	459,488
Estonia	1,209	1,356	1,472	1,524	1,571	1,448	1,372	1,351	1,347
Latvia	2,104	2,352	2,509	2,570	2,668	2,501	2,382	2,319	2,306
Lithuania	2,756	3,119	3,404	3,529	3,694	3,643	3,512	3,446	3,425
Percent Change in Population from Previous Year									
EU-25		8.1%	4.7%	1.4%	1.5%	1.7%	1.0%	1.5%	0.5%
Estonia		12.2%	8.6%	3.5%	3.1%	-7.8%	-5.2%	-1.5%	-0.3%
Latvia		11.8%	6.7%	2.4%	3.8%	-6.3%	-4.8%	-2.6%	-0.6%
Lithuania		13.2%	9.1%	3.7%	4.7%	-1.4%	-3.6%	-1.9%	-0.6%

After 1990, the combination of net emigration and the crude rate of natural increase (total births minus total deaths) caused a constant decline in the total population. Although the rates appear to be leveling near zero, they are expected to remain slightly negative for the foreseeable future.

Current Population Growth

Based on data from 2004, the Baltic States had the highest rates for population loss among the EU-25 countries.⁵² The graph on the following page demonstrates how net migration rates and natural decreases in the population affected the total population in 2004. Latvia's population decreased 5.5 persons per 1,000 people, Lithuania's population decreased by 6 persons per 1,000 people, and Estonia's population decreased 3 persons per 1,000 people.⁵³

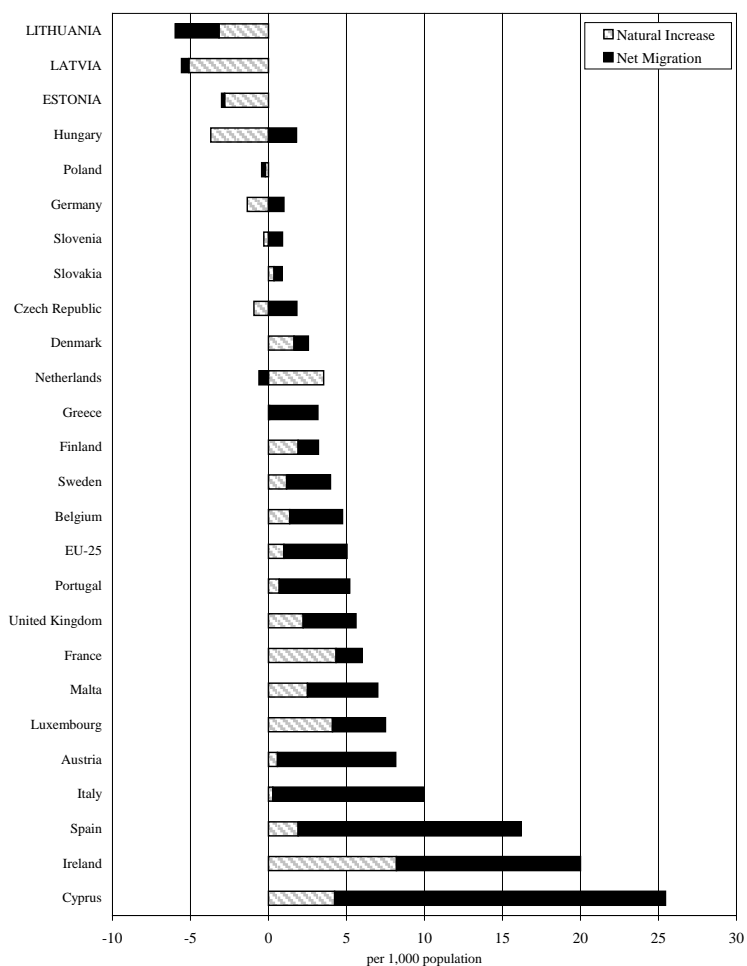
However, the crude rate of natural increase (total births minus total deaths) contributed far more to the decrease in population than emigration. Therefore, we believe that this warrants as much and possibly more attention than brain drain and labor migration because it appears to have a larger magnitude and it is directly observable at this point.

⁵¹ For raw data, see Appendix G: Total Population on 1 January, 1960 – 2005.

⁵² For raw data, see Appendix B: Crude rate of population increase per EU country, 2004.

⁵³ For raw data, see Appendix C: Population Growth Per EU Country, 2005-2050.

CRUDE RATE OF POPULATION INCREASE PER EU COUNTRY, 2004



Projections on population growth from 2005 to 2050 that include projected emigration and natural population decline estimate that the Baltic States will lose between 15% and 20% of their current population.⁵⁴ These are the biggest losses of all the EU-25 countries and will approximately place the populations of these three countries at their 1970 level.

POPULATION GROWTH PER EU COUNTRY 2005 - 2050

Country	Population Growth	2005 Population (in millions)	Est. 2050 Population (in millions)
EU-25	-2%	458.5	449.8
LITHUANIA	-15%	3.4	2.9
ESTONIA	-15%	1.3	1.1
LATVIA	-17%	2.3	1.9

⁵⁴ For raw data, see Appendix C: Population Growth per EU country, 2005 – 2050.

Appendix A

INTRA-EUROPE MIGRATION, ACCORDING TO COUNTRY OF IMMIGRATION, 2003 (in thousands)

	To:												
	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT ⁽¹⁾	CY	LV	LT
From:													
Belgium		0.08	0.59	4.29			3.04			1.81	0.04	0.01	0.01
Czech Republic			0.23	9.26			0.39			0.33	0.08	0.00	0.01
Denmark		0.07		2.69			0.76			0.29	0.01	0.02	0.08
Germany		1.23	3.22				13.75			11.38	0.20	0.08	0.26
ESTONIA		0.00	0.17	0.95			0.06			0.06		0.07	0.05
Greece		0.06	0.28	12.96			0.27			0.69	4.97	0.00	0.01
Spain		0.10	1.67	14.65						2.32	0.04	0.00	0.09
France		0.46	1.49	18.13			8.85			4.89	0.10	0.01	0.04
Ireland		0.05	0.31	2.05			1.65			0.33	0.06	0.01	0.04
Italy		0.27	0.90	23.70			5.80				0.01	0.02	0.05
Cyprus		0.04	0.03	0.26			0.02			0.01			0.00
LATVIA		0.02	0.38	1.97			0.21			0.13	0.01		0.18
LITHUANIA		0.03	0.70	3.46			1.40			0.13	0.02	0.15	
Luxembourg		0.00	0.20	1.73			0.09			0.25			0.00
Hungary		0.06	0.17	14.97			0.27			0.49	0.13	0.00	0.01
Malta		0.00	0.02	0.10			0.01			0.13	0.01		0.00
Netherlands		0.25	0.82	13.02			3.57			0.99	0.07	0.01	0.04
Austria		0.34	0.26	13.46			0.55			0.94	0.02	0.00	0.01
Poland		1.65	1.00	104.92			3.50			3.89	0.12	0.02	0.11
Portugal		0.03	0.17	7.70			5.51			0.45		0.00	0.01
Slovenia		0.02	0.03	2.05			0.07			0.26		0.00	0.00
Slovakia		24.39	0.08	10.68			0.32			0.41	0.06	0.01	0.01
Finland		0.06	0.42	2.20			0.80			0.25	0.01	0.04	0.03
Sweden		0.08	2.71	3.40			1.54			0.38	0.05	0.04	0.06
United Kingdom		0.49	3.71	13.20			34.18		13.00	4.84	2.87	0.04	0.12
EU-25		29.76	19.55	281.78			86.59			35.63	8.87	0.52	1.22
Iceland		0.01	1.54	0.27			0.07			0.02		0.01	0.00
Liechtenstein			0.01	0.07			0.01			0.00			
Norway		0.04	3.31	1.44			1.69			0.21		0.02	0.04
EEA-28		29.80	24.40	283.56			88.36			35.86	8.87	0.54	1.26
Switzerland		0.15	0.46	8.55			3.71			6.54	0.04	0.01	0.01
Bulgaria		0.65	0.13	13.41			13.89			1.22	0.44	0.00	0.00
Croatia		0.12	0.03	11.50			0.13			1.31		0.00	0.00
MK		0.17	0.08	3.68			0.03			3.66	0.04		
Romania		0.44	0.25	24.06			55.29			18.12	0.24	0.00	0.00
Turkey		0.11	0.58	49.70			0.16			1.05	0.01	0.01	0.03
Albania		0.04	0.02	1.52			0.11			26.49			0.01
Bosnia and Herz.		0.08	0.39	8.44			0.08			1.24			
Serbia and Mont.		0.27	0.14	21.75			0.21			4.19			0.01

(1) Data for 2002

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 106.

Appendix B

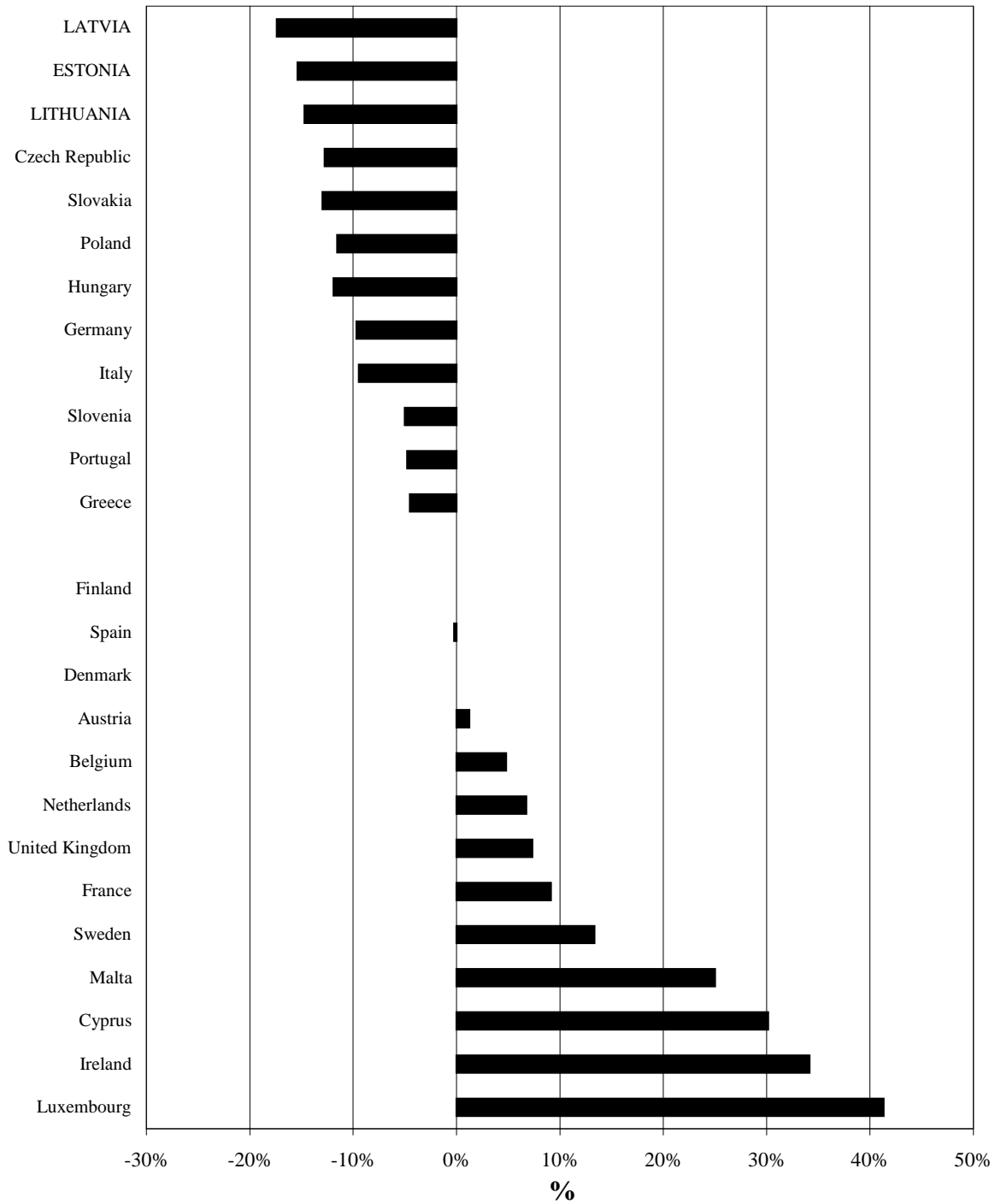
CRUDE RATE OF POPULATION INCREASE PER EU COUNTRY, 2004

Country	Natural Increase	Net Migration
Cyprus	4.2	21.2
Ireland	8.2	11.8
Spain	1.9	14.3
Italy	0.3	9.6
Austria	0.6	7.6
Luxembourg	4.1	3.4
Malta	2.5	4.5
France	4.3	1.7
United Kingdom	2.2	3.4
Portugal	0.7	4.5
EU-25	1.0	4.0
Belgium	1.4	3.4
Sweden	1.2	2.8
Finland	1.9	1.3
Greece	0.1	3.1
Netherlands	3.5	-0.6
Denmark	1.6	0.9
Czech Republic	-0.9	1.8
Slovakia	0.4	0.5
Slovenia	-0.3	0.9
Germany	-1.4	1.0
Poland	-0.2	-0.2
Hungary	-3.7	1.8
ESTONIA	-2.8	-0.2
LATVIA	-5.1	-0.5
LITHUANIA	-3.2	-2.8

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 46.

Appendix C

POPULATION GROWTH PER EU COUNTRY, 2005 - 2050



Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 127.

Appendix D

NET MIGRATION, INCLUDING CORRECTIONS (in thousands)

Country	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EU (27 countries)	574.2	669.0	592.7	2,073.0	537.5	936.6	453.9	766.4	1,803.0	1,975.7	2,022.7	1,656.2
EU (25 countries)	590.4	690.2	610.9	2,086.3	543.1	939.1	678.2	1,316.9	1,804.6	1,983.1	2,032.8	1,663.4
Euro area (13 countries)	542.9	619.6	563.1	2,023.1	438.7	786.8	920.6	1,175.0	1,602.5	1,733.7	1,738.0	1,387.3
Euro area (12 countries)	542.9	618.8	566.6	2,024.5	444.2	775.9	917.9	1,170.1	1,600.3	1,730.1	1,736.3	1,380.7
Belgium	17.3	1.8	15.1	9.8	11.6	16.7	12.9	35.7	40.5	35.5	35.8	50.7
Bulgaria	0.0	0.0	1.1	0.1	0.0	0.0	-220.6	7.3	-0.1	0.0		0.0
Czech Republic	10.0	9.9	10.2	12.0	9.5	8.8	6.5	-43.1	12.3	25.8	18.6	36.2
Denmark	10.5	28.6	17.5	12.1	11.0	9.4	10.1	12.0	9.6	7.0	5.0	6.7
Germany (including ex-GDR from 1991)	315.6	398.3	281.5	93.4	47.0	202.1	167.8	274.8	218.8	142.2	81.8	81.6
ESTONIA	-20.9	-15.6	-13.4	-6.9	-6.7	-1.1	0.2	0.1	0.2	0.3	0.1	0.1
Ireland	-3.0	6.0	15.9	17.4	16.2	24.3	31.8	39.2	32.7	31.3	47.9	66.2
Greece	78.1	77.3	70.9	61.5	54.8	45.1	29.3	37.8	38.0	35.4	41.4	40.0
Spain	64.4	70.5	83.3	94.4	158.7	237.9	389.8	441.2	649.2	624.5	610.0	641.6
France					-1.4	93.9	103.9	119.9	131.1	134.9	253.9	92.5
Italy	25.7	31.5	59.5	55.7	64.1	46.4	55.2	47.6	349.6	609.5	558.2	324.2
Cyprus	7.0	6.6	6.0	5.5	4.2	4.2	4.0	4.6	6.9	12.4	15.7	14.4
LATVIA	-22.8	-13.8	-10.1	-9.4	-5.8	-4.1	-5.4	-5.2	-1.8	-0.9	-1.1	-0.6
LITHUANIA	-24.2	-23.7	-23.4	-22.4	-22.1	-20.7	-20.3	-2.5	-1.9	-6.3	-9.6	-8.8
Luxembourg	3.8	4.3	3.5	3.6	3.8	4.4	3.5	3.3	2.6	2.1	1.5	2.8
Hungary	18.0	17.8	17.8	17.5	17.3	16.8	16.7	9.8	3.5	15.5	18.2	17.3
Malta	1.0	-0.2	0.7	0.6	0.5	0.5	9.9	2.2	2.0	1.6	1.8	0.9
Netherlands	20.4	15.0	21.3	30.5	44.1	43.9	57.0	56.0	27.6	7.0	-10.0	-22.8
Austria	3.1	2.1	3.9	1.5	8.5	19.8	17.2	43.5	34.8	38.2	61.7	56.4
Poland	-19.0	-18.2	-12.8	-11.7	-13.2	-14.0	-409.9	-16.8	-18.0	-13.8	-9.4	-12.9
Portugal	17.3	22.3	26.2	29.4	32.3	38.0	47.1	64.9	70.1	63.5	47.3	38.4
Romania	-16.2	-21.2	-19.3	-13.4	-5.6	-2.5	-3.7	-557.8	-1.5	-7.4	-10.1	-7.2
Slovenia	0.0	0.8	-3.5	-1.4	-5.5	10.9	2.7	4.9	2.2	3.6	1.7	6.4
Slovakia	4.7	2.9	2.2	1.8	1.3	1.5	-22.4	1.1	0.9	1.4	2.9	3.4
Finland	3.7	4.2	4.0	4.8	4.5	3.4	2.4	6.2	5.2	5.8	6.7	9.2
Sweden	50.8	11.7	5.8	5.9	11.0	13.6	24.5	28.6	30.9	28.7	25.3	26.7
United Kingdom	32.4	64.6	47.3	58.2	97.4	137.5	143.7	151.0	157.6	177.8	227.2	192.6
Croatia	-0.4	-179.2					-123.5	15.2	8.6	12.5	11.5	8.2
Macedonia	2.9	-1.5	4.4	-2.0	-1.9	-1.6	-2.5	-2.5	-24.8	-2.8	-0.1	-0.8
Turkey										-415.0	3.5	-1.0
Iceland	-0.8	-1.4	-0.5	0.1	0.9	1.1	1.9	0.8	-0.3	-0.2	0.6	3.9
Liechtenstein	0.1	0.1	0.0	0.0	0.5	0.2	0.3	0.4	0.2	0.3	0.1	0.1
Norway	7.6	6.5	5.7	9.7	13.3	19.1	9.7	8.0	17.3	11.2	13.2	18.3
Switzerland	29.4	24.6	-1.5	-2.6	10.7	25.0	23.7	39.4	47.1	41.5	38.1	32.2

The difference between immigration into and emigration from the area during the year (net migration is therefore negative when the number of emigrants exceeds the number of immigrants). Since most countries either do not have accurate figures on immigration...

Source: European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/portal/page>; Internet; accessed 30 January 2007.

Appendix E

POPULATION PROJECTIONS (in millions)

Country	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
EU (25 countries)	458.5	464.1	467.3	469.3	470.1	469.4	467.0	463.0	457.3	449.8
EU (15 countries)	384.5	390.7	394.7	397.5	398.8	398.7	397.3	394.6	390.3	384.4
Euro area	310.2	315.1	317.9	319.4	319.7	318.9	317.1	314.3	310.0	304.4
Belgium	10.4	10.6	10.7	10.8	10.9	11.0	11.0	11.0	11.0	10.9
Bulgaria	7.7	7.4	7.1	6.8	6.5	6.2	5.9	5.6	5.4	5.1
Czech Republic	10.2	10.1	10.0	9.9	9.8	9.7	9.5	9.3	9.1	8.9
Denmark	5.4	5.5	5.5	5.5	5.6	5.6	5.6	5.5	5.5	5.4
Germany (including ex-GDR from 1991)	82.6	82.8	82.9	82.7	82.1	81.1	79.9	78.4	76.7	74.6
ESTONIA	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1
Ireland	4.1	4.3	4.6	4.8	4.9	5.1	5.2	5.3	5.4	5.5
Greece	11.1	11.3	11.4	11.4	11.4	11.3	11.2	11.1	10.9	10.6
Spain	42.9	44.6	45.3	45.6	45.6	45.4	45.1	44.6	43.9	42.8
France	60.2	61.5	62.6	63.6	64.4	65.1	65.7	66.0	65.9	65.7
Italy	58.2	58.6	58.6	58.3	57.8	57.1	56.3	55.3	54.2	52.7
Cyprus	0.7	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0
LATVIA	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9
LITHUANIA	3.4	3.3	3.3	3.2	3.1	3.1	3.0	3.0	2.9	2.9
Luxembourg	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Hungary	10.1	10.0	9.8	9.7	9.6	9.5	9.4	9.2	9.1	8.9
Malta	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Netherlands	16.3	16.7	17.0	17.2	17.4	17.6	17.7	17.6	17.5	17.4
Austria	8.1	8.3	8.4	8.4	8.5	8.5	8.5	8.4	8.3	8.2
Poland	38.1	37.8	37.4	37.1	36.8	36.5	36.1	35.4	34.5	33.7
Portugal	10.5	10.7	10.8	10.8	10.7	10.7	10.6	10.4	10.2	10.0
Romania	21.7	21.3	20.9	20.3	19.7	19.2	18.8	18.3	17.8	17.1
Slovenia	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9
Slovakia	5.4	5.3	5.3	5.3	5.2	5.2	5.1	5.0	4.9	4.7
Finland	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.2
Sweden	9.0	9.2	9.4	9.6	9.8	9.9	10.0	10.1	10.1	10.2
United Kingdom	59.9	60.9	61.9	62.9	63.8	64.4	64.7	64.7	64.6	64.3

Population projections involve making population estimates or producing the most plausible figures for the years to come. Estimates are made using the latest available figures for the population on 1 January. In general, key assumptions are made with resp...

Source: European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/portal/page>; Internet; accessed 30 January 2007.

Appendix F

CRUDE RATE OF NET MIGRATION, 1960 – 2004⁽¹⁾

Country	1960/64	1965/69	1970/74	1975/79	1980/84	1985/89	1990/94	1995/99	2000	2003	2004
EU-25	0.6	-0.1	0.2	0.6	0.0	0.9	1.9	1.4	1.5	4.3	4.0
EU-15	0.7	-0.1	0.5	0.8	0.1	1.2	2.5	1.8	2.9	5.1	4.7
Eurozone	0.6	0.0	0.8	1.0	0.2	1.3	2.9	1.9	3.0	5.6	5.1
EEA-28	0.6	-0.1	0.2	0.6	0.0	0.9	1.9	1.4	1.5	4.3	4.0
Belgium	1.5	1.8	0.9	0.7	-0.7	0.8	1.9	1.1	1.3	3.4	3.4
Czech Republic	-1.7	0.0	-2.2	0.2	-0.6	0.2	-0.6	1.0	0.6	2.5	1.8
Denmark	0.2	0.2	1.3	0.4	0.2	1.2	2.0	3.0	1.9	1.3	0.9
Germany	2.2	2.9	2.2	0.2	0.0	4.2	7.0	2.5	2.0	1.7	1.0
ESTONIA	6.7	7.3	5.3	3.6	3.5	2.3	-14.4	-6.2	0.2	0.2	-0.2
Greece	-5.0	-4.0	-2.8	6.1	1.8	2.4	8.5	5.8	2.7	3.2	3.1
Spain	-3.5	-0.9	-0.9	0.8	0.0	-0.5	1.3	3.2	9.7	14.9	14.3
France	6.5	1.9	2.2	0.6	1.0	0.9	0.4	0.1	1.7	2.2	1.7
Ireland	-7.4	-5.1	3.3	3.1	-1.9	-9.3	-0.4	4.3	8.4	7.8	11.8
Italy	-1.6	-1.8	-0.8	0.1	-0.5	0.0	0.4	0.9	1.0	10.6	9.6
Cyprus ⁽²⁾	-9.2	-3.6	-52.4	-0.4	0.7	3.6	15.6	8.0	5.6	17.2	21.2
LATVIA	8.1	5.0	4.9	3.5	2.5	4.3	-10.5	-3.5	-2.3	-0.4	-0.5
LITHUANIA	1.0	1.3	2.7	1.2	1.9	3.5	-5.0	-6.3	-5.8	-1.8	-2.8
Luxembourg	6.5	2.6	11.1	4.0	1.1	5.9	10.1	9.4	7.9	4.6	3.4
Hungary	0.0	0.2	0.0	-0.2	0.0	-3.7	1.8	1.7	1.6	1.5	1.8
Malta	-17.9	-19.2	-8.5	4.4	1.9	0.5	2.7	1.1	25.7	4.0	4.5
Netherlands	0.3	0.8	2.0	2.6	1.0	1.9	2.7	2.0	3.6	0.4	-0.6
Austria	0.1	1.4	2.5	-0.4	0.4	1.9	6.3	0.9	2.1	4.7	7.6
Poland	-0.3	-0.7	-2.2	-1.2	-0.7	-1.1	-0.4	-0.4	-10.7	-0.4	-0.2
Portugal	-8.7	-19.1	-5.2	9.7	0.6	-3.2	-0.7	2.9	4.6	6.1	4.5
Slovenia	-1.2	1.9	0.7	5.9	0.0	3.2	-1.4	0.1	1.4	1.8	0.9
Slovakia	5.5	-1.2	-2.1	-0.6	-1.1	-0.7	-1.4	0.4	-4.1	0.3	0.5
Finland	-2.5	-4.1	0.3	-1.5	0.8	0.5	1.8	0.8	0.5	1.1	1.3
Sweden	1.4	3.1	0.9	2.1	0.6	2.9	3.7	1.1	2.8	3.2	2.8
United Kingdom	1.1	-0.8	-0.6	-0.2	-0.6	0.4	0.4	1.4	2.4	3.0	3.4
Bulgaria	0.0	-0.2	-0.9	-2.4	0.0	-5.8	-5.7	0.0	-27.4	0.0	0.0
Croatia	-0.9	0.4	-0.1	-0.4	-0.7	0.0	4.1	-8.7	-27.4	2.8	2.6
MK	-5.5	-1.5	-0.2	0.2	-0.2	-25.0	-0.8	-0.3	-1.3	-1.4	-0.1
Romania	-1.0	-0.2	-0.5	-0.5	-0.8	-0.9	-4.8	-0.5	-0.2	-0.3	-0.5
Turkey									0.9	-0.1	0.0
Iceland	-2.8	-2.0	-1.7	-3.6	0.0	0.4	-0.8	0.2	6.8	-0.7	1.9
Liechtenstein	18.3	5.7	15.8	10.4	-1.3	6.0	7.5	5.2	9.2	7.9	3.7
Norway	-0.2	0.2	0.8	1.0	1.1	1.7	1.9	2.5	2.2	2.5	2.9
Switzerland	10.2	2.8	0.4	-4.4	2.5	3.9	6.9	1.6	3.3	5.6	5.2
Albania	-0.4	0.6	0.0	-0.4	0.2	2.7	-20.0			-3.9	-3.1
Bosnia and Herz.	-2.3	-10.9	-0.5	-3.1	-3.3	0.0				1.0	2.3
Serbia and Mont.					-1.3	-1.7	-0.3		0.0	10.2	0.0

(1) Including corrections due to population consensus, register counts, etc. which cannot be classified as births, deaths, or migrations.

(2) Starting from 1975 Government-controlled area only.

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 49.

Appendix G

TOTAL POPULATION ON 1 JANUARY, 1960 – 2005

Country	1960	1970	1980	1985	1990	1995	2000	2004	2005
EU-25	376,423	406,870	426,081	431,993	438,410	445,871	450,379	457,189	459,488
EU-15	314,826	339,975	354,568	358,358	363,493	370,669	375,503	383,047	385,383
Eurozone	250,625	271,517	284,859	288,423	292,673	298,693	302,526	308,974	310,926
EEA-28	380,183	410,958	430,413	436,406	442,925	450,517	455,169	462,091	464,423
Belgium	9,128.8	9,660.2	9,855.1	9,857.7	9,947.8	10,130.6	10,239.1	10,396.4	10,445.9
Czech Republic	9,637.8	9,906.5	10,315.7	10,333.9	10,362.1	10,333.2	10,278.1	10,211.5	10,220.6
Denmark	4,565.5	4,906.9	5,122.1	5,111.1	5,135.4	5,215.7	5,330.0	5,397.6	5,411.4
Germany	72,543.0	78,269.1	78,179.7	77,709.2	79,112.8	81,538.6	82,163.5	82,531.7	82,500.8
ESTONIA	1,209.1	1,356.1	1,472.2	1,523.5	1,570.6	1,448.1	1,372.1	1,351.1	1,347.0
Greece	8,300.4	8,780.5	9,584.2	9,919.5	10,120.9	10,595.1	10,903.8	11,040.7	11,075.7
Spain	30,327.0	33,587.6	37,241.9	38,353.0	38,826.3	39,343.1	40,049.7	42,345.3	43,038.0
France	45,464.8	50,528.2	53,731.4	55,157.3	56,577.0	57,752.5	58,796.5	60,200.0	60,561.2
Ireland	2,835.5	2,943.3	3,392.8	3,544.3	3,507.0	3,597.6	3,777.8	4,027.7	4,109.2
Italy	50,025.5	53,685.3	56,388.5	56,588.3	56,694.4	56,845.9	56,929.5	57,888.2	58,462.4
Cyprus*	572.0	612.0	510.0	538.4	572.7	645.4	690.5	730.4	749.2
LATVIA	2,104.1	2,351.9	2,508.8	2,570.0	2,668.1	2,500.6	2,381.7	2,319.2	2,306.4
LITHUANIA	2,755.6	3,118.9	3,404.2	3,528.7	3,693.7	3,643.0	3,512.1	3,445.9	3,425.3
Luxembourg	313.0	338.5	363.5	366.2	379.3	405.7	433.6	451.6	455.0
Hungary	9,961.0	10,322.1	10,709.5	10,657.4	10,374.8	10,336.7	10,221.6	10,116.7	10,097.5
Malta	327.2	302.5	322.5	338.3	352.4	369.5	380.2	399.9	402.7
Netherlands	11,417.3	12,957.6	14,091.0	14,453.8	14,892.6	15,424.1	15,864.0	16,258.0	16,305.5
Austria	7,030.4	7,455.1	7,545.5	7,563.2	7,644.8	7,943.5	8,002.2	8,140.1	8,206.5
Poland	29,479.9	32,670.6	35,413.4	37,063.3	38,038.4	38,580.6	38,653.6	38,190.6	38,173.8
Portugal	8,826.0	8,697.6	9,713.6	10,016.6	9,996.0	10,017.6	10,195.0	10,474.7	10,529.3
Slovenia	1,580.5	1,718.0	1,893.1	1,936.8	1,996.4	1,989.5	1,987.8	1,996.4	1,997.6
Slovakia	3,969.7	4,536.6	4,963.3	5,144.6	5,287.7	5,356.2	5,398.7	5,380.1	5,384.8
Finland	4,413.0	4,614.3	4,771.3	4,893.7	4,974.4	5,098.8	5,171.3	5,219.7	5,236.6
Sweden	7,471.3	8,004.3	8,303.0	8,342.6	8,527.0	8,816.4	8,861.4	8,975.7	9,011.4
United Kingdom	52,164.4	55,546.4	56,284.9	56,481.6	57,157.0	57,943.5	58,785.2	59,699.8	60,034.5
Bulgaria	7,829.2	8,464.3	8,846.4	8,971.2	8,767.3	8,427.4	8,190.9	7,801.3	7,761.0
Croatia	4,127.4	4,403.4	4,598.1	4,652.9	4,687.5	4,776.5	4,567.5	4,441.8	4,443.9
MK	1,384.5	1,616.8	1,878.1	2,004.7	1,873.1	1,957.3	2,021.6	2,029.9	2,035.2
Romania	18,319.2	20,139.6	22,132.7	22,687.4	23,211.4	22,712.4	22,455.5	21,711.3	21,658.5
Turkey							66,885.5	70,689.5	71,607.5
Iceland	175.7	204.0	226.9	240.6	253.8	267.0	279.0	290.8	293.6
Liechtenstein	16.3	20.9	25.8	26.7	28.5	30.6	32.4	34.3	34.6
Norway	3,567.7	3,863.2	4,078.9	4,145.8	4,233.1	4,348.4	4,478.5	4,577.5	4,606.4
Switzerland	5,295.5	6,168.7	6,303.6	6,455.9	6,673.9	7,019.0	7,164.4	7,364.1	7,415.1
Albania	1,583.8	2,110.6	2,645.2	2,936.2	3,286.5	3,248.8	3,401.2	3,119.5	3,135.0
Bosnia and Herz.	3,212.3	3,685.7	4,136.9	4,293.9	4,499.2	3,990.9		3,837.5	3,848.5
Serbia and Mont.	8,006.4	8,877.9	9,792.7	10,106.7	10,343.8	10,535.3	10,637.4	8,157.6	8,135.9

* Starting from 1975 Government-controlled area only.

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 55.

Appendix H

LATVIA EXTERNAL LONG-TERM MIGRATION BY COUNTRY

	1995			2000			2001			2002			2003			2004			2005		
	I	E	Net	I	E	Net	I	E	Net	I	E	Net	I	E	Net	I	E	Net	I	E	Net
Total	2,799	16,512	-13,713	1,627	7,131	-5,504	1,443	6,602	-5,159	1,428	3,262	-1,834	1,364	2,210	-846	1,665	2,744	-1,079	1,886	2,450	-564
Armenia	19	20	-1	23	0	23	35	2	33	28	44	-16	14	20	-6	7	21	-14	14	3	11
Azerbaijan	7	25	-18	15	18	-3	22	27	-5	18	15	3	8	15	-7	4	13	-9	3	4	-1
Belarus	141	1,100	-959	119	516	-397	121	536	-415	91	138	-47	65	92	-27	59	111	-52	54	113	-59
Canada	34	49	-15	14	183	-169	13	206	-193	6	24	-18	12	31	-19	17	32	-15	26	17	9
Switzerland	0	1	-1	2	8	-6	1	0	1	4	7	-3	8	12	-4	4	20	-16	13	15	-2
Germany	79	813	-734	73	927	-854	83	1,030	-947	76	210	-134	79	170	-91	170	233	-63	189	261	-72
Denmark	3	6	-3	11	14	-3	13	18	-5	30	52	-22	22	40	-18	52	53	-1	52	40	12
ESTONIA	76	54	22	35	51	-16	46	81	-35	56	120	-64	69	44	25	87	75	12	134	73	61
Finland	0	10	-10	3	12	-9	12	20	-8	23	60	-37	38	33	5	49	50	-1	69	30	39
France	0	11	-11	0	14	-14	2	65	-63	19	105	-86	12	28	-16	20	39	-19	36	44	-8
United Kingdom	24	6	18	16	86	-70	26	29	-3	20	62	-42	35	40	-5	111	113	-2	128	189	-61
Georgia	18	12	6	17	8	9	14	4	10	2	13	-11	1	11	-10	7	7	0	9	1	8
Israel	40	530	-490	28	655	-627	36	476	-440	51	46	5	58	49	9	75	50	25	58	35	23
Italy	1	2	-1	4	12	-8	1	18	-17	11	11	0	17	32	-15	23	28	-5	35	37	-2
Kyrgyzstan	2	10	-8	4	2	2	1	4	-3	2	2	0	0	1	-1	1	1	0	2	3	-1
Kazakhstan	30	36	-6	14	21	-7	20	29	-9	1	13	-12	6	4	2	11	14	-3	10	6	4
LITHUANIA	67	317	-250	59	142	-83	50	114	-64	162	176	-14	146	80	66	246	152	94	264	104	160
Moldova	16	49	-33	15	10	5	15	7	8	10	11	-1	5	4	1	6	7	-1	11	1	10
Netherlands	1	4	-3	2	27	-25	7	18	-11	9	14	-5	8	19	-11	8	11	-3	13	16	-3
Norway	3	2	1	1	10	-9	11	9	2	8	38	-30	17	18	-1	24	25	-1	18	35	-17
Poland	6	28	-22	7	18	-11	15	29	-14	23	28	-5	15	15	0	27	19	8	23	16	7
Portugal	0	0	0	0	2	-2	1	2	-1	3	2	1	2	37	-35	5	2	3	7	1	6
Russian Federation	1,839	11,558	-9,719	727	3,350	-2,623	503	2,894	-2,391	372	1,279	-907	354	938	-584	274	1,057	-783	282	764	-482
Sweden	20	12	8	19	27	-8	9	52	-43	26	60	-34	40	45	-5	32	72	-40	68	47	21
Tajikistan	2	4	-2	4	2	2	4	4	0	4	0	4	0	1	-1	1	4	-3	0	2	-2
Turkmenistan	4	5	-1	2	0	2	6	0	6	2	6	-4	0	0	0	0	2	-2	0	1	-1
Ukraine	206	1,127	-921	185	420	-235	162	387	-225	133	222	-89	92	166	-74	81	173	-92	71	141	-70
United States	86	662	-576	60	497	-437	59	432	-373	82	254	-172	105	136	-31	118	169	-51	122	166	-44
Uzbekistan	14	12	2	14	4	10	8	9	-1	8	11	-3	16	3	13	10	4	6	3	6	-3
Other countries	61	47	14	154	95	59	147	100	47	148	239	-91	120	126	-6	136	187	-51	172	279	-107

Source: Central Statistical Bureau of Latvia, available from <http://www.csb.gov.lv/?lng=en>; Internet; accessed 30 January 2007.

Appendix I

INTRA-EUROPE MIGRATION, ACCORDING TO COUNTRY OF EMIGRATION, 2003

	To:																								Total		
	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE		UK	
From:																											
Belgium																											
Czech Republic	0.08		0.05	0.95	0.00	0.07	0.07	0.28	0.03	0.20	0.03	0.01	0.01	0.01	0.04	0.01	0.15	0.32	1.04	0.03	0.01	18.26	0.06	0.04	0.46	22.18	
Denmark	0.51	0.18		2.54	0.13	0.23	1.72	1.33	0.26	0.78	0.02	0.35	0.60	0.13	0.12	0.01	0.61	0.23	0.55	0.17	0.03	0.08	0.40	4.58	4.32	19.90	
Germany	4.62	8.91	2.71		0.60	18.11	16.24	19.06	2.42	33.80	0.31	1.47	2.01	1.51	15.43	0.12	8.62	15.96	82.91	8.88	2.35	9.55	2.38	3.79	15.55	277.30	
ESTONIA																											
Greece																											
Spain	0.65	0.03	0.13	2.11	0.00	0.04		2.47	0.49	0.80	0.00	0.00	0.00	0.09	0.04	0.01	0.60	0.09	0.14	0.63	0.01	0.02	0.10	0.16	2.34	10.99	
France																											
Ireland																									4.90		
Italy ⁽¹⁾	1.17	0.03	0.13	7.42	0.00	0.24	0.85	2.42	0.13			0.00	0.00	0.20	0.13	0.10	0.48	0.53	0.46	0.16	0.15	0.02	0.15	0.19	2.74	17.68	
Cyprus	0.02	0.02	0.01	0.08		0.60	0.01	0.06		0.02					0.02	0.02	0.02	0.02	0.02						0.02	0.26	1.19
LATVIA	0.00	0.04	0.17	0.04	0.00	0.00	0.03	0.01	0.03	0.00			0.08	0.00			0.02	0.01	0.02	0.04		0.00	0.03	0.05	0.04	0.62	
LITHUANIA	0.05	0.05	0.16	1.20	0.03	0.02	0.47	0.14	0.28	0.18	0.00	0.19		0.00	0.01		0.10	0.04	0.12	0.06		0.00	0.11	0.19	0.98	4.39	
Luxembourg	1.12	0.01	0.12	0.75	0.00	0.02	0.07	1.25	0.04	0.21		0.00	0.00		0.02	0.01	0.10	0.02	0.01	0.52	0.00	0.01	0.03	0.07	0.17		
Hungary																											
Malta																											
Netherlands ⁽²⁾	9.28	0.17	0.43	9.82	0.02	0.48	3.37	3.37	0.46	1.27	0.04	0.02	0.04	0.15	0.24	0.03		0.47	0.62	0.67	0.04	0.07	0.29	0.65	7.02	39.03	
Austria																											
Poland ⁽³⁾	0.14	0.05	0.07	15.01		0.06	0.14	0.25	0.02	0.31		0.00	0.01	0.01	0.01		0.28	0.36		0.01		0.01	0.01	0.12	0.28	17.13	
Portugal																									2.19		
																									4.76		
Slovenia ⁽⁴⁾	0.04	0.01	0.00	0.46		0.01	0.01	0.05	0.00	0.13	0.00			0.02	0.01		0.01	0.19	0.01	0.00		0.00	0.00	0.02	0.03	1.01	
Slovakia ⁽⁵⁾	0.01	0.45		0.20		0.00	0.01	0.02		0.04				0.01	0.02		0.01	0.13	0.01				0.00	0.01	0.05	0.95	
Finland	0.25	0.03	0.40	0.76	0.31	0.06	0.79	0.28	0.11	0.21	0.02	0.02	0.02	0.06	0.10	0.00	0.22	0.08	0.02	0.03	0.00	0.00		3.43	1.07	8.26	
Sweden	0.41	0.08	2.59	1.58	0.10	0.51	1.36	0.95	0.21	0.44	0.05	0.06	0.04	0.07	0.13	0.02	0.50	0.24	0.22	0.09	0.01	0.02	3.39		3.68	16.71	
United Kingdom	1.00	0.83	1.98	25.58		6.16	37.66	23.64		5.05	2.98			1.22	3.61	1.35	2.35	0.69	3.17	0.41		1.48	0.71	0.49		120.71	
EU-25																											
Iceland																											
Liechtenstein																											
Norway	0.11	0.04	3.26	0.70	0.07	0.05	1.08	0.43	0.08	0.19	0.02	0.07	0.10	0.01	0.05	0.00	0.32	0.08	0.24	0.06	0.01	0.03	1.02	5.82	1.41	15.26	
EEA-28																											
Switzerland																											
Bulgaria																											
Croatia	0.00	0.01	0.00	1.02		0.00	0.01	0.01		0.02				0.00		0.02	1.12			0.19	0.00		0.01	0.00	2.41		
MK																											
Romania																											
Turkey																											
Albania																											
Bosnia and Herz.																											
Serbia and Mont.																											

(1) Data for 2002.

(2) Excluding corrections.

(3) Emigration for permanent residence.

(4) Country specified for (most) Slovenian nationals only.

(5) Flows of nationals cover emigration for permanent residence only.

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 108.

Appendix J

EMIGRANTS WHO DID NOT DECLARE THEIR DEPARTURE BY EDUCATIONAL ATTAINMENT, 2001–2005 Persons aged 15 and older

Educational Attainment	Emigrants who not declare their departure (in thousands)	Against the total number of emigrants who not declare their departure (%)
Higher or professional colleges	12.9	20.9%
General upper secondary	39.4	63.8%
General lower secondary	6	9.7%
Primary	0.6	1.0%
Not known	2.9	4.6%
Total	61.8	100.0%

EMIGRANTS WHO DID NOT DECLARE THEIR DEPARTURE BY FORMER OCCUPATION, 2001–2005 Persons aged 15 and older

Former Occupation	Emigrants who not declare their departure (in thousands)	Against the total number of emigrants who not declare their departure (%)
Intellectual employees	13	21.0%
Service and trade employees	4	6.5%
Skilled workers	17.5	28.3%
Elementary occupations	4.3	7.0%
Without occupation	23	37.2%
Total	61.8	100.0%

EMIGRANTS WHO DID NOT DECLARE THEIR DEPARTURE BY REASON OF EMIGRATION, 2001–2005

Reason of Emigration	Emigrants who not declare their departure (in thousands)	Against the total number of emigrants who not declare their departure (%)
Work	58	83.1%
Studies	2.1	3.0%
Other	1.4	2.0%
Not known	8.3	11.9%
Total	69.8	100.0%

Source: Republic of Lithuania Statistical Department, available from <http://www.stat.gov.lt/en/pages> ; Internet; accessed 30 January 2007.

Appendix K

EMIGRATION BY AGE GROUP AND SEX, 2003 (in thousands)

Country	0-4		5-14		15-19		20-24		25-39		40-64		65+		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	0.2	0.2	0.5	0.5	0.8	0.7	4.4	2.9	10.2	3.9	7.6	2.2	0.1	0.1	23.8	10.5
Denmark	1.4	1.3	1.8	1.6	1.3	2.1	4.9	6.0	9.4	7.2	3.7	2.2	0.3	0.2	22.8	20.7
Germany	7.6	7.1	20.8	19.7	11.9	9.4	44.2	42.6	180.6	95.4	115.3	48.2	12.1	11.3	392.5	233.8
ESTONIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	0.7	0.5	1.2	1.1	1.4	1.3	3.6	3.6	15.9	13.7	9.1	6.6	2.9	2.7	34.8	29.5
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.2	9.4
Italy	1.1	1.1	1.9	1.8	1.1	0.7	1.8	1.3	10.0	7.7	6.2	4.2	1.3	1.5	23.5	18.3
Cyprus	-	-	-	-	0.0	0.1	0.2	0.4	0.8	1.5	0.5	0.8	0.0	0.0	1.6	2.8
LATVIA	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.4	0.3	0.1	0.2	1.1	1.1
LITHUANIA	0.2	0.2	0.6	0.6	0.3	0.3	0.6	0.9	2.0	2.3	1.3	1.2	0.1	0.3	5.2	5.9
Luxemburg	0.3	0.3	0.5	0.4	0.2	0.2	0.6	0.9	2.4	2.3	1.4	0.8	0.1	0.1	5.5	5.0
Hungary	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.5	0.4	0.2	0.0	0.0	1.4	1.2
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	2.6	2.5	4.2	4.1	1.4	1.5	2.9	3.9	14.3	12.7	9.7	6.9	1.2	0.9	36.4	32.5
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovenia	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.4	1.6	1.0	0.9	0.6	0.1	0.1	3.4	2.4
Slovakia	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.4	1.2	0.8	1.0	0.4	..1	0.1	2.8	1.9
Finland	0.5	0.5	0.6	0.5	0.2	0.4	0.7	1.1	2.4	2.6	1.3	1.0	0.1	0.1	5.8	6.3
Sweden	1.2	1.2	1.9	1.9	0.6	0.8	1.6	2.4	7.3	7.0	4.7	3.2	0.7	0.7	18.0	17.0
United Kingdom	6.5	6.2	9.9	6.9	7.4	2.8	21.2	37.9	76.6	66.1	38.7	27.4	4.9	1.6	165.2	148.7
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	1.1	1.1	1.0	0.8	0.4	0.4	3.4	3.1
MK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lichtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	0.9	0.8	1.2	1.1	0.6	0.8	1.8	2.4	5.2	4.1	2.9	2.1	0.5	0.4	13.0	11.6
Switzerland	2.0	1.9	3.4	3.2	1.9	2.2	5.1	5.4	15.0	14.0	10.7	8.4	2.1	1.6	40.0	36.7
Albania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herz.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia and Mont.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: European Commission, *Population Statistics: Detailed Tables, 2006 Edition* (Luxemburg: 2006), 103.

Appendix L

GDP PER CAPITA IN PPS Index EU-25 = 100

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU (27 countries)	:	95	95	95	95	96	96	96	96	:	:	:
EU (25 countries)	100	100	100	100	100	100	100	100	100	100	100	100
EU (15 countries)	110	110	110	110	110	109	109 ^(b)	109	108	108 ^(f)	107 ^(f)	107 ^(f)
Belgium	118	116	115	117	117	118	119	119	118	118 ^(f)	118 ^(f)	118 ^(f)
Bulgaria	26 ^(e)	26 ^(e)	26	26	28	28	31	32	33	34 ^(f)	36 ^(f)	37 ^(f)
Czech Republic	69 ^(e)	67 ^(e)	66	65	66	68	71	72	74	76 ^(f)	78 ^(f)	80 ^(f)
Denmark	125	124	126	126	125	121	119	119	122	122 ^(f)	122 ^(f)	122 ^(f)
Germany (including ex-GDR from 1991)	116	115	113	112	110	109	112	111	110	110 ^(f)	109 ^(f)	109 ^(f)
ESTONIA	38^(e)	39^(e)	39	42	44	47	51	53	60	65^(f)	70^(f)	74^(f)
Ireland	112	117	122	126	128	132	134	136	139	139 ^(f)	140 ^(f)	141 ^(f)
Greece	71	71	71	73	73	77	80	81	84	85 ^(f)	86 ^(f)	87 ^(f)
Spain	87	89	92	92	93	95	97	97	98	98 ^(f)	98 ^(f)	99 ^(f)
France	114	114	113	113	114	112	108	108	108	107 ^(f)	107 ^(f)	106 ^(f)
Italy	115	115	114	113	112	110	106	103	100	99 ^(f)	98 ^(f)	97 ^(f)
Cyprus	80 ^(e)	81 ^(e)	81	82	84	83	85	88	89	88 ^(f)	88 ^(f)	88 ^(f)
LATVIA	33^(e)	34^(e)	34	35	37	39	41	44	48	52^(f)	56^(f)	59^(f)
LITHUANIA	37^(e)	39^(e)	37	38	40	42	47	49	52	55^(f)	58^(f)	60^(f)
Luxembourg	192	194	218	222	215	221	237	241	251	257 ^(f)	261 ^(f)	265 ^(f)
Hungary	50 ^(e)	51 ^(e)	52	54	57	59	61	61	63	64 ^(f)	64 ^(f)	64 ^(f)
Malta	:	78	77	78	74	75	74	71	70	70 ^(f)	69 ^(f)	68 ^(f)
Netherlands	122	122	123	124	127	125	124	125	126	126 ^(f)	127 ^(f)	127 ^(f)
Austria	124	123	125	126	122	120	123	123	123	123 ^(f)	123 ^(f)	122 ^(f)
Poland	44 ^(e)	45 ^(e)	46	47	46	46	47	49	50	51 ^(f)	52 ^(f)	54 ^(f)
Portugal	77	78	80	80	80	79	73 ^(b)	72	71	70 ^(f)	69 ^(f)	68 ^(f)
Romania	:	:	25	25	26	28	30	33	34	36 ^(f)	37 ^(f)	38 ^(f)
Slovenia	71 ^(e)	72 ^(e)	74	73	74	75	77	80	82	84 ^(f)	85 ^(f)	87 ^(f)
Slovakia	47 ^(e)	48 ^(e)	47	47	49	51	53	54	57	59 ^(f)	62 ^(f)	64 ^(f)
Finland	109	113	112	114	115	115	109	111	111	113 ^(f)	114 ^(f)	114 ^(f)
Sweden	115	114	118	119	115	114	115	115	115	116 ^(f)	117 ^(f)	117 ^(f)
United Kingdom	112	112	111	112	113	116	116	118	117	117 ^(f)	117 ^(f)	117 ^(f)
Croatia	41 ^(e)	42 ^(e)	40 ^(e)	41 ^(e)	41 ^(e)	44 ^(e)	46 ^(e)	47 ^(f)	48 ^(f)	49 ^(f)	50 ^(f)	51 ^(f)
Macedonia	25	25	26	26	24	24	25	25	26 ^(f)	26 ^(f)	27 ^(f)	28 ^(f)
Turkey	32 ^(e)	32 ^(e)	29	30	26	26	26	27	28	28 ^(f)	29 ^(f)	30 ^(f)
Iceland	128	130	130	127	126	122	119	124	129	130 ^(f)	128 ^(f)	:
Norway	139	131	139	159	155	147	149	156	169	169 ^(f)	168 ^(f)	167 ^(f)
Switzerland	139	138	134	133	128	130	130 ^(f)	129 ^(f)	129 ^(f)	129 ^(f)	128 ^(f)	127 ^(f)

- (:) Not available
- (b) Break in series
- (f) Forecast
- (e) Estimated value

Note: Gross domestic product (GDP) is a measure for the economic activity. It is defined as the value of all goods and services produced less the value of any goods or services used in their creation. The volume index of GDP per capita in Purchasing Power Stand

Source: European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/portal/page>; Internet; accessed 30 January 2007.

Appendix M

NET MIGRATION RATE, PER THOUSANDS

Country	1985	1990	1995	2000	2001	2002	2003	2004	2005	Average (2000-05)
Estonia	4.1	-3.6	-10.9	0.2	0.0	0.1	0.2	-0.2	na	0.1
Latvia	4.7	-4.9	-5.6	-2.3	-2.2	-0.8	-0.4	-0.5	-0.5	-1.1
Lithuania	3.5	-2.4	-6.5	-5.8	-0.7	-0.6	-1.8	-2.8	-3.0	-2.5
EU25	0.1	1.9	1.5	1.5	2.9	4.0	4.3	4.0	3.7	3.4
EU15	0.4	2.5	1.9	2.9	3.6	4.7	5.1	4.7	4.2	4.2
EU10	-0.9	-1.0	-0.4	-5.6	-0.6	0.1	0.5	0.5	-0.1	-0.9

EMPLOYMENT

Country	Employment, in thousands			Change, in thousands			Unemployment Rate (av %)			
	2004	2015	2050	2004- 2015	2015- 2050	2004- 2050	2005	2006*	2007*	2008*
Estonia	585	612	475	27	-137	-110	7.9	6.3	na	na
Latvia	1,003	1,076	791	73	-285	-212	7.4	5.2	4.7	4.2
Lithuania	1,443	1,600	1,231	158	-369	-212	4.8	4.5	4.3	4.2
EU25	195,380	212,975	183,625	17,595	-29,350	-11,755				
EU15	166,120	180,567	158,270	14,447	-22,297	-7,850				
EU10	29,260	32,408	25,355	3,148	-7,053	-3,905				

GROSS DOMESTIC PRODUCT

Country	GDP (\$BN)					Real GDP Growth (%)				
	2002	2003	2004	2005	2006*	2002	2003	2004	2005	2006*
Estonia	6.0	7.0	9.2	11.2	13.1	6.5	7.2	6.7	7.8	9.8
Latvia	9.3	11.2	13.7	15.8	18.8	6.5	7.2	8.6	10.3	10.8
Lithuania	14.2	18.6	22.5	25.6	28.9	6.8	10.5	7.0	7.5	7.9
EU25								2.4	1.7	2.6

POPULATION, IN MILLIONS

Country	2002	2003	2004	2005	2006*
Estonia	1.4	1.4	1.4	1.3	1.3
Latvia	2.3	2.3	2.3	2.3	2.3
Lithuania	3.5	3.5	3.4	3.4	3.4

CPI CHANGE (%)

Country	2002	2003	2004	2005	2006*
Estonia	3.6	1.3	3.0	4.1	4.3
Latvia	1.8	2.9	6.2	6.7	6.5
Lithuania	0.3	-1.2	1.2	2.7	3.6

Source: European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/portal/page>; Internet; accessed 30 January 2007.

Appendix N

FACTORS INFLUENCING THE BALTIC SEA REGION COUNTRIES' LABOR MIGRATION IN 2000

	GDP (PPP) per capita (in \$1000)	GDP (MER) per capita, USD	Number of population (in millions)	Unemployment Rate (%)
Baltic States				
Estonia	10.068	3.577	1.45	13.90
Latvia	6.839	2.938	2.40	14.70
Lithuania	7.094	3.044	3.70	15.90
The Baltic Sea Region Countries and Current EU Members				
Denmark	27.404	30.400	5.30	4.60
Germany	25.290	22.829	82.00	10.00
Sweden	24.288	25.627	8.90	4.70
Finland	25.154	23.418	5.20	9.70

Distance between the Capitals (km)

	Denmark	Germany	Sweden	Finland
Estonia	482	1,045	383	84
Latvia	733	850	450	361
Lithuania	826	828	686	611

Source: Tiiu Paas et al., *Labor Market Flexibility and Migration in the Baltic States: Macro Evidence*, (Tartu: Tartu University, 2003) , Table 10.

Appendix O

GROWTH RATE OF REAL GDP PER CAPITA (%)

Country	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU (27 countries)	1.4	2.7	2.6	3.2	3.1	1.8	1.2	0.6	2.3	1.1	:	:
EU (25 countries)	1.9	2.5	2.5	3.0	3.5	1.7	0.6	1.1	1.6	1.1	2.7 ^(f)	2.1 ^(f)
EU (15 countries)	1.7	2.2	2.7	2.6	3.6	1.5	0.5	0.5	1.9	0.9	2.3 ^(f)	1.8 ^(f)
Belgium	1.4	3.2	1.3	3.1	3.4	0.8	0.8	0.8	2.4	0.4	2.4 ^(f)	2.3 ^(f)
Bulgaria	-8.3	-9.1	10.0	0.0	9.1	8.3	0.0	7.7	7.1	6.7	6.3 ^(f)	5.9 ^(f)
Czech Republic	4.9	-2.3	0.0	2.4	2.3	4.5	2.2	2.1	4.2	6.0	5.7 ^(f)	5.4 ^(f)
Denmark	2.3	2.6	1.8	2.5	3.1	0.3	0.0	0.3	2.0	2.6	2.8 ^(f)	2.2 ^(f)
Germany (including ex-GDR from 1991)	0.8	1.7	2.1	2.0	2.8	1.2	0.0	-0.4	1.1	1.1	2.6	1.1 ^(f)
ESTONIA	5.0	14.3	4.2	0.0	12.0	7.1	10.0	9.1	5.6	13.2	11.6^(f)	8.3^(f)
Ireland	7.0	11.1	6.5	9.9	8.0	4.2	4.0	2.6	2.5	3.3	2.8 ^(f)	3.1 ^(f)
Greece	1.2	2.3	3.4	3.3	4.3	4.1	3.9	3.8	4.5	3.5	3.4 ^(f)	3.3 ^(f)
Spain	1.7	4.2	4.1	3.9	4.5	2.2	1.4	1.4	1.4	2.0	2.6 ^(f)	1.9 ^(f)
France	1.0	1.5	3.4	2.8	3.2	1.3	0.4	0.4	1.3	0.9	1.7 ^(f)	1.7 ^(f)
Italy	1.3	1.3	1.9	1.9	3.1	1.8	0.0	-0.6	0.0	-0.6	1.2 ^(f)	1.2 ^(f)
Cyprus	0.0	0.9	3.6	3.5	4.2	2.4	0.8	0.0	2.4	1.5	1.5 ^(f)	1.5 ^(f)
LATVIA	6.7	12.5	5.6	0.0	10.5	9.5	4.3	8.3	11.5	10.3	9.4^(f)	11.4^(f)
LITHUANIA	0.0	14.3	6.3	0.0	5.9	5.6	5.3	15	4.3	12.5	7.4^(f)	6.9^(f)
Luxembourg	0.0	4.7	5.2	6.8	7.0	1.6	2.8	0.4	2.9	3.0	5.0 ^(f)	3.9 ^(f)
Hungary	3.0	2.9	5.7	5.4	7.7	4.8	4.5	4.3	4.2	4.0	3.8 ^(f)	3.7 ^(f)
Malta	:	:	:	:	:	-2.2	1.1	-2.3	0.0	1.2	1.1 ^(f)	1.1 ^(f)
Netherlands	2.9	3.8	3.6	3.9	2.9	1.2	-0.4	0.0	1.6	1.2	2.8 ^(f)	3.1 ^(f)
Austria	2.2	1.7	3.8	2.8	3.1	0.4	0.4	0.8	1.9	1.5	2.5 ^(f)	2.1 ^(f)
Poland	3.6	6.9	6.5	3.0	5.9	2.8	0.0	5.4	5.1	2.4	4.8 ^(f)	4.5 ^(f)
Portugal	3.4	3.3	4.3	4.1	3.0	1.0	0.0	-1.0	0.0	0.0	1.0 ^(f)	1 ^(f)
Romania	:	:	:	:	0.0	9.1	8.3	7.7	7.1	6.7	6.3 ^(f)	5.9 ^(f)
Slovenia	3.8	4.9	3.5	5.7	4.3	2.1	3.0	2.9	4.8	3.6	4.4 ^(f)	4.2 ^(f)
Slovakia	7.1	6.7	3.1	0.0	0.0	3.0	5.9	2.8	5.4	5.1	7.3 ^(f)	6.8 ^(f)
Finland	3.1	5.9	4.7	4.0	4.7	2.0	1.6	1.6	3.1	2.6	4.8 ^(f)	2.8 ^(f)
Sweden	1.4	2.3	3.6	4.3	4.1	0.8	1.6	1.5	3.8	2.2	3.6 ^(f)	3.1 ^(f)
United Kingdom	2.0	3.3	2.5	3.1	3.6	1.7	1.7	2.2	2.7	1.6	2.1 ^(f)	2.1 ^(f)
Croatia	9.7	5.9	2.8	-2.7	8.3	2.6	5.0	4.8	4.5 ^(f)	4.3 ^(f)	4.2 ^(f)	6.0 ^(f)
Macedonia	0.0	0.0	5.9	0.0	5.6	-5.3	0.0	5.6	5.3	0.0 ^(f)	5.0 ^(f)	4.8 ^(f)
Turkey	4.8	9.1	0.0	-4.2	0.0	-8.7	9.5	0.0	8.7	8.0	3.7 ^(f)	7.1 ^(f)
Iceland	4.0	4.3	4.6	2.6	3.0	2.1	-1.2	2.5	6.4	6.0	3.6 ^(f)	0.0 ^(f)
Norway	4.6	4.4	2.1	1.4	2.4	2.0	0.7	0.6	2.3	1.6	2.5 ^(f)	1.8 ^(f)
Switzerland	0.3	1.8	2.6	0.6	3.1	0.3	-0.8	-0.8 ^(f)	1.6 ^(f)	2.4 ^(f)	2.6 ^(f)	1.5 ^(f)

(:) Not available

(f) Forecast

Gross domestic product (GDP) is a measure for the economic activity, defined as the value of all goods and services produced less the value of any goods or services used in their creation. The calculation of the annual growth rate of GDP per capita at con

Source: European Commission, EUROSTAT, available from <http://epp.eurostat.ec.europa.eu/portal/page>; Internet; accessed 30 January 2007.

Appendix P

EDUCATIONAL ATTAINMENT

Percentage of the Population Aged 25 to 64 Having Completed at Least Upper Secondary Education

	2001a00	2002a00	2003a00	2004a00	2005a00	2006a00
EU25 European Union (25 countries)	64.5	65.5	66.8	68.1	69.1	:
10 New Member States (CZ, EE, CY, LV, LT, HU, MT, PL, SI, SK)	79.7	80.7	82.1	83.1	84.2	:
Estonia	87.1	87.6	88.5	88.9	89.1	:
Latvia	79.6 ⁽ⁱ⁾	82.2 ^(b)	83.2	84.6	84.5	:
Lithuania	84.2	84.9 ^(b)	86.1	86.6	87.6	:

Early School-Leavers - Percentage of People Aged 18-24 With Only Lower Secondary Education Not In Education

	2001a00	2002a00	2003a00	2004a00	2005a00	2006a00
EU25 European Union (25 countries)	17 ^(e)	16.6	16.2 ^(b)	15.6	15.2	15.1
10 New Member States (CZ, EE, CY, LV, LT, HU, MT, PL, SI, SK)	9 ^(e)	8.7	7.7	7.5 ^(b)	7.2	7.5
Estonia	14.1	12.6	11.8	13.7	14	13.2
Latvia	:	19.5	18.1	15.6	11.9	19.0 ^(p)
Lithuania	13.7	14.3 ^(b)	11.8	9.5 ^(b)	9.2	10.3

(b) Break in series

(i) See explanatory text

(p) Provisional value

(e) Estimated value

Source: European Commission, EUROSTAT, available from http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1090,30070682,1090_33076576&_dad=portal&_schema=PORTAL; Internet; accessed 30 January 2007.

Appendix Q:

How Lithuania is Different from Estonia and Latvia

Lithuanians appear to have a greater tendency to emigrate than Estonians and Latvians. Although Lithuanian unemployment rates are similar to Estonia and Latvia, its real GDP growth rate is usually lower. Geography and personal attitudes may serve as drivers for greater emigration rates for Lithuania.

The negative net migration trend of the 1990s has eased in the past decade. In recent years, Estonia and Latvia have reported net migration figures very close to zero. In 2005, Estonia actually showed a slightly positive rate of 0.14 per 1,000 while Latvia had a slightly negative rate of -0.564 per 1,000.⁵⁵ In contrast, Lithuania showed a much larger negative net migration of -8.782 per 1,000 people. While this rate is much lower than those experienced throughout the 1990s, it is still much larger than the other two countries.

NET MIGRATION, INCLUDING CORRECTIONS (IN THOUSANDS)

Year	EU-25	ESTONIA	LATVIA	LITHUANIA
1994	590.40	-20.90	-22.80	-24.20
1995	690.20	-15.60	-13.80	-23.70
1996	610.90	-13.40	-10.10	-23.40
1997	2,086.28	-6.90	-9.40	-22.40
1998	543.09	-6.70	-5.80	-22.10
1999	939.13	-1.10	-4.10	-20.70
2000	678.22	0.20	-5.40	-20.30
2001	1,316.92	0.10	-5.20	-2.50
2002	1,804.63	0.20	-1.80	-1.90
2003	1,983.15	0.30	-0.90	-6.30
2004	2,032.76	0.13	-1.08	-9.61
2005	1,663.43	0.14	-0.56	-8.78

Mixed economic measures

Empirical evidence is mixed on potential economic reasons for Lithuania's higher migration losses. By several measures, Lithuania's economy is performing as well or even better than the other two countries. For example, its unemployment rate has recently been lower than Latvia. Additionally, GDP per capita (as measured by purchasing power) is usually higher in Lithuania than in Latvia since 1997.⁵⁶ However, the real GDP growth rate per capita is usually lower for Lithuania than Latvia and Estonia.

⁵⁵ For raw data, see Appendix D: Net Migration, Including Corrections

⁵⁶ For raw data, see Appendix L: GDP per Capita in PPS and M: Net Migration Rate, Per Thousands

GROWTH RATE OF REAL GDP PER CAPITA (%)⁵⁷

Year	EU-25	ESTONIA	LATVIA	LITHUANIA
1996	1.9	5.0	6.7	0.0
1997	2.5	14.3	12.5	14.3
1998	2.5	4.2	5.6	6.3
1999	3.0	0.0	0.0	0.0
2000	3.5	12.0	10.5	5.9
2001	1.7	7.1	9.5	5.6
2002	0.6	10.0	4.3	5.3
2003	1.1	9.1	8.3	15
2004	1.6	5.6	11.5	4.3
2005	1.1	13.2	10.3	12.5
2006*	2.7	11.6	9.4	7.4
2007*	2.1	8.3	11.4	6.9

*Forecast

UNEMPLOYMENT RATE⁵⁸

Year	EU-25	Estonia	Latvia	Lithuania
1998	9.3	9.2	14.3	13.2
1999	9.1	11.3	14	13.7
2000	8.6	12.8	13.7	16.4
2001	8.4	12.4	12.9	16.5
2002	8.7	10.3	12.2	13.5
2003	9	10	10.5	12.4
2004	9.1	9.7	10.4	11.4
2005	8.8	7.9	8.9	8.3
2006	7.9	5.6	6.9	5.9

Geographic distance from other economic centers

Another possible explanation for Lithuania's relatively high migration losses could simply be geographic distance. Estonia's capital is within commuting distance from Helsinki, a major European capital with a robust economy and cultural ties to Estonia. In theory, Estonians could remain in their native country and commute to Helsinki on a daily or weekly basis without actually emigrating. Latvia's proximity to Estonia may yield positive externalities from this situation. However, Lithuania is further away from major economic centers, making such commutes unlikely. Furthermore, Lithuania is surrounded by relatively abundant and cheap labor from Poland, Belarus, and Russia, which may keep wages down more than in the other two countries and cause laborers to seek work elsewhere.

⁵⁷ For raw data, see Appendix O: Growth Rate of Real GDP per Capita

⁵⁸ European Commission, EUROSTAT, available from

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1090,30070682,1090_30298591&_dad=portal&_schema=PORTAL; Internet; accessed 18 February 2007.

National affiliation

A final potential explanation for the high losses is that Lithuanians are less likely to affiliate with their nationality than Estonians and Latvians. This may indicate that Lithuanians have fewer inhibitions about emigrating and less incentives to remain in their country than Latvians and Estonians.

According to Gallup's World Poll, Lithuanians are the most likely to affiliate with the region and least likely to affiliate with their nationality. When asked among these groups, with which do you personally identify most strongly, the results were as follows:

Response	Estonia		Latvia		Lithuania	
	N	%	N	%	N	%
Don't know	43	4%	30	3%	63	6%
Refused	6	1%	9	1%	13	1%
City or village	167	17%	212	21%	212	21%
Country	30	3%	25	3%	20	2%
Do not identify myself with any of these groups	43	4%	55	6%	56	6%
Nationality	370	37%	314	31%	273	27%
Region	315	31%	290	29%	347	34%
Religion	29	3%	65	7%	31	3%
Total	1,003	100%	1,000	100%	1,015	100%

Appendix R

The Gallup World Poll Question on Desire to Emigrate

Question: wp1325— Ideally, if you could afford it, would you choose to move permanently to another country?

Estonia and Lithuania

1. Like to move to one of CIS
2. Like to move to one of the EU countries
3. Like to move to one of the European countries
4. Like to move to some other place in the world
5. Want to continue living in our country
6. DK
7. Refused

Question: wp2762— Ideally, if you could afford it, would you choose to move permanently to another country?

Latvia

1. Like to move to one of CIS
2. Like to move to another European Union Member country
3. Like to move to another European country
4. Like to move to some other place in the world
5. Want to continue living in our country
6. Don't know
7. Refused

Appendix S

The Gallup World Poll: Breakdown by Country

ESTONIA	
Refused	2 0.2%
Don't know	69 6.8%
Want to continue living in our country	741 73.0%
Subtotal (want to move)	191 19%
Want to move to one of the CIS countries	15 1.5%
Want to move to one of the EU countries	69 6.8%
Want to move to one of the European countries	50 4.9%
Want to move to some other place in the world	57 5.6%
Estonia Total	1,003

LATVIA	
Don't know	51 5.1%
Refused	4 0.4%
Want to continue living in our country	750 75.0%
Subtotal (want to move somewhere)	195 19.5%
Like to move to another European country	37 3.7%
Like to move to another European Union member country	88 8.8%
Like to move to one of CIS countries	17 1.7%
Like to move to some other place in the world	53 5.3%
Latvia Total	1,000

LITHUANIA	
Refused	9 0.9%
Don't know	48 4.7%
Want to continue living in our country	645 63.5%
Subtotal (want to move)	313 30.8%
Want to move to one of the CIS countries	11 1.1%
Want to move to one of the EU countries	152 15.0%
Want to move to one of the European countries	71 7.0%
Want to move to some other place in the world	79 7.8%
Lithuania Total	1,015

Appendix T

	No Answer	Don't know	Higher/ PhD	Incomplete Higher	Incomplete Secondary	Secondary/ Secondary/vocational	Grand Total
ESTONIA							
Refused				1 0.5%		1 0.2%	2 0.2%
Don't know			13 7.6%	10 5.0%	18 8.3%	28 6.8%	69 6.9%
Want to continue living in our country	1 50.0%		133 77.8%	153 76.5%	149 68.3%	305 74.0%	741 73.9%
Subtotal (want to move)	1 50.0%		25 15%	36 18%	51 23%	78 19%	191 19%
Want to move to one of the CIS countries			4 2.3%	2 1.0%	3 1.4%	6 1.5%	15 1.5%
Want to move to one of the EU countries	1 50.0%		6 3.5%	14 7.0%	22 10.1%	26 6.3%	69 6.9%
Want to move to one of the European countries			6 3.5%	9 4.5%	10 4.6%	25 6.1%	50 5.0%
Want to move to some other place in the world			9 5.3%	11 5.5%	16 7.3%	21 5.1%	57 5.7%
Estonia Total	2		171	200	218	412	1,003
LATVIA							
Don't know			6 3.4%	6 8.3%	16 5.6%	23 4.9%	51 5.1%
Refused			1 0.6%	0 0.0%	3 1.1%	0 0.0%	4 0.4%
Want to continue living in our country			147 84.0%	44 61.1%	196 69.0%	363 77.4%	750 75.0%
Subtotal (want to move somewhere)			21 12.0%	22 30.6%	69 24.3%	83 17.7%	195 19.5%
Like to move to another European country			3 1.7%	3 4.2%	14 4.9%	17 3.6%	37 3.7%
Like to move to another European Union member country			7 4.0%	13 18.1%	32 11.3%	36 7.7%	88 8.8%
Like to move to one of CIS countries			1 0.6%	4 5.6%	6 2.1%	6 1.3%	17 1.7%
Like to move to some other place in the world			10 5.7%	2 2.8%	17 6.0%	24 5.1%	53 5.3%
Latvia Total			175	72	284	469	1,000
LITHUANIA							
Refused		1 25.0%	2 1.0%		2 0.8%	4 0.8%	9 0.9%
Don't know		1 25.0%	5 2.6%	4 5.6%	11 4.6%	27 5.3%	48 4.7%
Want to continue living in our country		1 25.0%	142 73.6%	35 48.6%	148 61.7%	319 63.0%	645 63.5%
Subtotal (want to move)		1 25.0%	44 22.8%	33 45.8%	79 32.9%	156 30.8%	313 30.8%
Want to move to one of the CIS countries			2 1.0%		3 1.3%	6 1.2%	11 1.1%
Want to move to one of the EU countries			17 8.8%	15 20.8%	38 15.8%	82 16.2%	152 15.0%
Want to move to one of the European countries			10 5.2%	10 13.9%	18 7.5%	33 6.5%	71 7.0%
Want to move to some other place in the world		1 25.0%	15 7.8%	8 11.1%	20 8.3%	35 6.9%	79 7.8%
Lithuania Total		4	193	72	240	506	1,015

Appendix U

	Estonia: What are the drivers of emigration for incomplete higher degree?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.483	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.342	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.264	Do you feel your life is completely controlled by others, or not? Yes.
0.263	How would you describe the financial status of your household? Not enough money, even for food.
0.253	Have you ever thought about starting your own business? Yes.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.247	At work do you feel you have a lot of wasted time, or not? No.
-0.255	Are you satisfied or dissatisfied with current housing, dwelling, or place you live? Satisfied.
-0.267	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.303	Nationality? Estonian.
-0.371	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

	Estonia: What are the drivers of emigration for secondary / sec. vocational?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.472	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.207	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Worse.
0.204	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.201	Have there been enough times in the past 12 mos when you did not have enough money to provide adequate shelter/housing? Yes.
0.196	Are you planning to start your own business in the next 12 months or not? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.157	In the city or area where you live, do you have confidence in the local police force / patrol or not? Yes.
-0.164	Please indicate how good of a job the national government does? Fair.
-0.175	Nationality? Estonian.
-0.190	Are you satisfied or dissatisfied with current housing, dwelling, or place you live? Satisfied.
-0.350	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Appendix U – continued

	Estonia: What are the drivers of emigration for incomplete secondary?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.472	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.354	In this country, do you have confidence in the military? No.
0.344	Nationality? Russian.
0.312	Have you ever thought about starting your own business? Yes.
0.311	Do you feel your life is completely controlled by others, or not? Yes.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.225	Do you feel your life is completely controlled by others, or not? No.
-0.241	At work, do your opinions seem to count, or not? Yes.
-0.255	Are you satisfied or dissatisfied with your job or the work you do? Satisfied.
-0.314	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.
-0.345	Nationality? Estonian.

	Latvia: What are the drivers of emigration for incomplete higher degree?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.460	In this country, are you satisfied or dissatisfied with efforts to reduce prejudice toward minority groups? Dissatisfied.
0.424	Is the city or area where you live a good place or not to live for racial/ethnic minorities? Not.
0.423	In your work, do you have an opportunity to do what you do best, every day, or not? No.
0.360	In this country, do you have confidence in financial institutions or banks? No.
0.357	Are you satisfied or dissatisfied with the educational system or the schools? Dissatisfied.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.296	Is the city or area where you live a good place or not to live for religious minorities? A good place
-0.313	In this country, do you have confidence in financial institutions or banks? Yes.
-0.316	Is the city or area where you live a good place or not to live for racial/ethnic minorities? A good place.
-0.370	In your work, do you have an opportunity to do what you do best, every day, or not? Yes.
-0.411	In this country, are you satisfied or dissatisfied with efforts to reduce prejudice toward minority groups? Satisfied.

Appendix U – continued

	Latvia: What are the drivers of emigration for secondary / sec. vocational?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.408	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.213	Is the city or area where you live a good place or not a good place to live for families with children? Not a good place.
0.176	Nationality? Russian.
0.171	Can people in this country get ahead by working hard, or not? No.
0.159	At work do you feel you have a lot of wasted time, or not? Yes.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.158	Can people in this country get ahead by working hard, or not? Yes.
-0.167	In this country, are you satisfied or dissatisfied with efforts to preserve the environment? Satisfied.
-0.178	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.194	Is the city or area where you live a good place or not a good place to live for families with children? A good place.
-0.355	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

	Latvia: What are the drivers of emigration for incomplete secondary?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.496	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.263	Are you satisfied or dissatisfied with the city or area where you live? Dissatisfied.
0.258	In your work, do you have an opportunity to do what you do best, every day, or not? No.
0.251	Job type? Service workers.
0.221	Are you satisfied or dissatisfied with your job or the work you do? Dissatisfied.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.192	Are you satisfied or dissatisfied with your job or the work you do? Satisfied.
-0.228	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.
-0.233	In your work, do you have an opportunity to do what you do best, every day, or not? Yes.
-0.270	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.522	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Appendix U – continued

	Lithuania: What are the drivers of emigration for incomplete higher degree?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.353	Is the city or area where you live a good place or not a good place to live for young, single people? Not.
0.323	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.323	Do you feel your life is completely controlled by others, or not? Yes.
0.312	Are you satisfied or dissatisfied with your standard of living? Dissatisfied.
0.297	Is corruption widespread within businesses located in this country or not? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.242	Nationality? Lithuanian.
-0.246	Do you feel your life is completely controlled by others, or not? No.
-0.268	Is the city or area where you live a good place or not a good place to live for young, single people? A good place.
-0.283	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.
-0.324	Are things better off, worse off, or about the same in terms of ability to get a job than they were in the Soviet Union days? Worse off.

	Lithuania: What are the drivers of emigration for secondary / sec. vocational?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.311	Are you planning to start your own business in the next 12 months or not? No.
0.264	Marital status? Single.
0.248	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.241	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.239	Are you satisfied or dissatisfied with your personal health? Satisfied.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.185	Marital status? Married.
-0.187	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.188	Are you planning to start your own business in the next 12 months or not? Yes.
-0.189	Is religion an important part of your daily life? Yes.
-0.217	Are you satisfied or dissatisfied with your personal health? Dissatisfied.

Appendix U – continued

	Lithuania: What are the drivers of emigration for incomplete secondary?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.551	Marital status? Single.
0.447	Job type? Transportation worker.
0.436	Job type? Service workers.
0.406	Are you satisfied or dissatisfied with your personal health? Satisfied.
0.311	Job type? Manufacturing or production worker.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.314	Marital status? Widowed.
-0.317	Is religion an important part of your daily life? Yes.
-0.333	Is there someone at work who encourages your development, or not? No.
-0.370	Are you satisfied or dissatisfied with your personal health? Dissatisfied.
-0.404	Are things better off, worse off, or about the same in terms of ability to get a job than they were in the Soviet Union days.

Appendix V

	Professional Worker	Manager, Executive or Official	Business Owner	Clerical or Office Worker	Sales Worker	Service worker	Construction or Mining Worker	Manufacturing or Production Worker	Transportation Worker	Installation or Repair Worker	Farming, Fishing or Forestry Worker	Other	Don't Know	Refused	Blank	Grand Total
ESTONIA																
Refused	1 0.8%														1 0.3%	2 0.2%
Don't know	7 5.5%	3 7.1%	2 6.5%	2 5.3%	4 8.0%	7 6.7%	3 4.5%	3 3.8%	2 6.7%	3 13.6%		1 7.1%	2 28.6%		30 8.0%	69 6.9%
Want to continue living in our country	96 75.0%	35 83.3%	27 87.1%	26 68.4%	31 62.0%	71 68.3%	52 77.6%	60 76.9%	22 73.3%	17 77.3%	12 80.0%	10 71.4%	4 57.1%		278 73.7%	741 73.9%
Subtotal (want to move)	24 18.8%	4 9.5%	2 6.5%	10 26.3%	15 30.0%	26 25.0%	12 17.9%	15 19.2%	6 20.0%	2 9.1%	3 20.0%	3 21.4%	0 14.3%	1 18.0%	68 19.0%	191
Want to move to one of the CIS countries	2 1.6%					1 1.0%		3 3.8%			1 6.7%				8 2.1%	15 1.5%
Want to move to one of the EU countries	7 5.5%	2 4.8%	1 3.2%	5 13.2%	3 6.0%	9 8.7%	5 7.5%	5 6.4%	1 3.3%	1 4.5%		2 14.3%	1 14.3%		27 7.2%	69 6.9%
Want to move to one of the European countries	8 6.3%	1 2.4%		4 10.5%	6 12.0%	7 6.7%	5 7.5%	1 1.3%	3 10.0%	1 4.5%	2 13.3%	1 7.1%			11 2.9%	50 5.0%
Want to move to some other place in the world	7 5.5%	1 2.4%	1 3.2%	1 2.6%	6 12.0%	9 8.7%	2 3.0%	6 7.7%	2 6.7%						22 5.8%	57 5.7%
Estonia Total	128	42	31	38	50	104	67	78	30	22	15	14	7	377	1,003	
LATVIA																
Refused	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	1 1.7%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	3 0.8%	4 0.4%
Don't know	4 3.7%	0 0.0%	0 0.0%	2 5.3%	5 6.9%	6 5.6%	1 1.8%	3 5.2%	1 2.4%	4 16.0%	2 6.7%	0 0.0%	0 0.0%	1 11.1%	22 5.8%	51 5.1%
Want to continue living in our country	88 81.5%	30 83.3%	11 91.7%	29 76.3%	51 70.8%	75 70.1%	38 69.1%	43 74.1%	32 78.0%	19 76.0%	24 80.0%	19 82.6%	5 55.6%	6 66.7%	280 74.3%	750 75.0%
Subtotal (want to move somewhere)	16 14.8%	6 16.7%	1 8.3%	7 18.4%	16 22.2%	26 24.3%	16 29.1%	11 19.0%	8 19.5%	2 8.0%	4 13.3%	4 17.4%	4 44.4%	2 22.2%	72 19.1%	195 19.5%
Like to move to one of CIS countries	1 0.9%	0 0.0%	0 0.0%	0 0.0%	2 2.8%	4 3.7%	0 0.0%	1 1.7%	2 4.9%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	7 1.9%	17 1.7%
Like to move to another EU member country	6 5.6%	1 2.8%	0 0.0%	3 7.9%	8 11.1%	13 12.1%	9 16.4%	7 12.1%	2 4.9%	2 8.0%	2 6.7%	2 8.7%	0 0.0%	1 11.1%	32 8.5%	88 8.8%
Like to move to another European country	3 2.8%	2 5.6%	1 8.3%	1 2.6%	3 4.2%	3 2.8%	2 3.6%	0 0.0%	3 7.3%	0 0.0%	1 3.3%	0 0.0%	3 33.3%	1 11.1%	14 3.7%	37 3.7%
Like to move to some other place in the world	6 5.6%	3 8.3%	0 0.0%	3 7.9%	3 4.2%	6 5.6%	5 9.1%	3 5.2%	1 2.4%	0 0.0%	1 3.3%	2 8.7%	1 11.1%	0 0.0%	19 5.0%	53 5.3%
Latvia Total	108	36	12	38	72	107	55	58	41	25	30	23	9	9	377	1,000
LITHUANIA																
Refused	1 0.7%			1 2.6%				1 1.7%	1 3.6%				1 20.0%		4 0.8%	9 0.9%
Don't know	3 2.2%	1 2.6%	2 9.1%	1 2.6%	5 10.6%	4 5.2%	2 3.3%	1 3.6%	6 20.7%		2 7.1%		1 12.5%		20 4.2%	48 4.7%
Want to continue living in our country	98 72.6%	30 76.9%	13 59.1%	25 65.8%	22 46.8%	43 55.8%	36 60.0%	16 57.1%	15 51.7%	9 45.0%	20 71.4%	4 80.0%	4 0.8	5 62.5%	305 64.3%	645 63.5%
Subtotal (want to move)	33 24.4%	8 20.5%	7 31.8%	11 28.9%	20 42.6%	30 39.0%	21 35.0%	10 35.7%	8 27.6%	11 55.0%	6 21.4%	1 20.0%	0 0.0%	2 25.0%	145 30.6%	313 30.8%
Want to move to one of the CIS countries					3 6.4%	3 3.9%				2 10.0%					3 0.6%	11 1.1%
Want to move to one of the EU countries	12 8.9%	4 10.3%	2 9.1%	4 10.5%	9 19.1%	16 20.8%	12 20.0%	3 10.7%	7 24.1%	5 25.0%	3 10.7%				75 15.8%	152 15.0%
Want to move to one of the European countries	13 9.6%	1 2.6%	2 9.1%	2 5.3%	6 12.8%	4 5.2%	4 6.7%	2 7.1%		2 10.0%	1 3.6%	1 20.0%		1 12.5%	32 6.8%	71 7.0%
Want to move to some other place in the world	8 5.9%	3 7.7%	3 13.6%	5 13.2%	2 4.3%	7 9.1%	5 8.3%	5 17.9%	1 3.4%	2 10.0%	2 7.1%			1 12.5%	35 7.4%	79 7.8%
Lithuania Total	135	39	22	38	47	77	60	28	29	20	28	5	5	8	474	1,015

Appendix W

Estonia: What are the drivers of emigration for service workers?

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.600	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.332	Have there been enough times in the past 12 mos when you did not have enough money to provide adequate shelter/housing? Yes.
0.292	Nationality? Russian.
0.223	Do you think the level of corruption in this country is lower, about the same, or higher than it was Soviet Union days? Higher.
0.210	In this country, do you have confidence in religious organizations? Refused.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.172	Have there been enough times in the past 12 mos when you did not have enough money to buy food? No.
-0.195	Are you satisfied or dissatisfied with current housing, dwelling, or place you live? Satisfied.
-0.308	Have there been times in the past 12 months when you did not have enough money to provide adequate shelter/housing? No.
-0.339	Nationality? Estonian.
-0.438	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Estonia: What are the drivers of emigration for skilled laborers?

POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.432	With which [group] do you personally identify most strongly? Country (out of country, region, city, nationality, don't know, none).
0.363	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.340	At work do you feel you have a lot of wasted time, or not? Yes.
0.300	How would you describe the financial status of your household? Can buy anything except realty.
0.297	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.214	Are you satisfied or dissatisfied with current housing, dwelling, or place you live? Satisfied.
-0.218	Is the city or area where you live a good place or not a good place to live for families with children? A good place.
-0.267	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.
-0.285	In the city or area where you live, do you have confidence in the local police force / patrol or not? Yes.
-0.325	At work do you feel you have a lot of wasted time, or not? No.

Appendix W – continued

	Estonia: What are the drivers of emigration for manual laborers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.372	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.349	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.340	In your work, do you have an opportunity to do what you do best, every day, or not? No.
0.328	Have there been enough times in the past 12 mos when you did not have enough money to provide adequate shelter/housing? Yes.
0.322	Have you ever thought about starting your own business? Yes.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.258	At work do you feel you have a lot of wasted time, or not? No.
-0.259	Have you ever thought about starting your own business? No.
-0.340	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.
-0.350	In your work, do you have an opportunity to do what you do best, every day, or not? Yes
-0.350	Have there been times in the past 12 months when you did not have enough money to provide adequate shelter/housing? No.

	Latvia: What are the drivers of emigration for service workers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.291	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.252	Is the city or area where you live a good place or not a good place to live for families with children? Not a good place.
0.249	With which [group] do you personally identify most strongly? None (out of country, region, city, nationality, don't know, none).
0.218	Would you recommend the city or area where you live to a friend or associate as a place to live, or not? Not.
0.208	Is the city or area where you live a good place or not a good place to live for young, single people? Not.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.191	Is the city or area where you live getting better or getting worse as a place to live? Better.
-0.192	Are religious beliefs ever a source of trouble between people in the city or area where you live? No.
-0.196	In this country, are you satisfied or dissatisfied with efforts to reduce prejudice toward minority groups? Satisfied
-0.205	Do you think that economic conditions in the city or area where you live are getting better or getting worse? Better.
-0.275	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Appendix W – continued

	Latvia: What are the drivers of emigration for skilled laborers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.521	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.339	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.301	Do you think people like you can influence how political decisions are made in country? Yes.
0.291	Marital status? Single.
0.286	In this country, do you have confidence in religious organizations? Yes.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.240	Please indicate how good of a job the city / local government does? Fair.
-0.253	Would you recommend the city or area where you live to a friend or associate as a place to live, or not? Yes.
-0.282	In your opinion, how many people in our country, if any, are afraid to openly express their political views? Some.
-0.404	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.551	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

	Latvia: What are the drivers of emigration for manual laborers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.470	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.293	Are you satisfied or dissatisfied with the city or area where you live? Dissatisfied.
0.288	In this country, are you satisfied or dissatisfied with efforts to reduce prejudice toward minority groups? Dissatisfied.
0.257	In your work, do you have an opportunity to do what you do best, every day, or not? No.
0.222	Is the city or area where you live a good place or not a good place to live for families with children? Not a good place.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.271	Marital status? Married.
-0.291	In your work, do you have an opportunity to do what you do best, every day, or not? Yes
-0.298	Is the city or area where you live a good place or not a good place to live for families with children? A good place.
-0.337	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.
-0.428	Which statement best reflects your opinion? There are as many opportunities in this country as in any other country and respondent would like to continue to live and work here.

Appendix W – continued

	Lithuania: What are the drivers of emigration for service workers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.251	Are you satisfied or dissatisfied with the city or area where you live? Dissatisfied.
0.241	Generally speaking, would you say that university education in our country is better than university education in Western countries, about the same or worse? Worse.
0.234	Marital status? Single.
0.232	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.231	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.164	Is the city or area where you live getting better or getting worse as a place to live? Better.
-0.166	In the city/area where you live, are you satisfied or dissatisfied with the quality of water? Dissatisfied.
-0.205	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.
-0.245	With which [group] do you personally identify most strongly? Region (out of country, region, city, nationality, don't know, none).
-0.285	Are you satisfied or dissatisfied with the city or area where you live? Satisfied.

	Lithuania: What are the drivers of emigration for skilled laborers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.332	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Likely.
0.296	Marital status? Single.
0.264	In the city/area where you live, are you satisfied or dissatisfied with the quality of air? Satisfied.
0.255	Which statement best reflects your opinion? There are always better opportunities outside this country that will attract you to leave the country if you could do so.
0.241	Do you think that economic conditions in the city or area where you live are getting better or getting worse? Better.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.227	Are things better off, worse off, or about the same in terms of ability to get a job than they were in the Soviet Union days. Worse.
-0.233	Nationality? Russian.
-0.259	Are you satisfied or dissatisfied with your standard of living? Satisfied.
-0.305	Marital status? Married.
-0.325	In the next 12 months, are you likely or unlikely to move away from the city or area where you live? Unlikely.

Appendix W – continued

	Lithuania: What are the drivers of emigration for manual laborers?	
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POSITIVE CORRELATIONS WITH DESIRE TO LEAVE	
0.307	Are you satisfied or dissatisfied with your job or the work you do? Dissatisfied.
0.299	In this country, do you have confidence in the national government? No.
0.288	Does anyone in this household work temporarily in another country or does everyone work in this country? Someone works in another country.
0.285	Would you recommend the city or area where you live to a friend or associate as a place to live, or not? Not.
0.249	In the city or area where you live, do you have confidence in the local police force / patrol or not? No.

NEGATIVE CORRELATIONS WITH DESIRE TO LEAVE	
-0.225	Is the city or area where you live a good place or not a good place to live for young, single people? A good place.
-0.229	How would you describe the financial status of your household? Can buy anything except realty.
-0.265	Are you satisfied or dissatisfied with your job or the work you do? Satisfied.
-0.302	In this country, do you have confidence in the national government? Yes.
-0.302	Were you treated with respect all day yesterday? Yes.

Appendix X

A Note on Methodology for Margin of Error and Correlations

Margin of Error

The Gallup Organization sampled approximately 1,000 residents in each country. In order to test the likelihood that the sample proportion includes the population proportion, a margin of error estimate with 95% probability to include the actual proportion is calculated based on the sample estimate and number of respondents in the sample. The equations used for this analysis are as follows:

$$95\% \text{ Confidence Interval} = \hat{p}_F \pm 1.96 * SE(\hat{p}_F)$$

$$\text{Where } SE(\hat{p}_F) = \sqrt{\frac{p_F * (1 - p_F)}{n}}$$

\hat{p}_F = estimated sample proportion

n = sample size

Results range in robustness, and caution must be utilized in extrapolating the results beyond the sample estimate.

Correlations

Correlation does not necessarily imply causation, but it is a useful tool to see how a group of people responded to a variety of questions. The analysis does show a trend in the concerns of respondents and the levels of satisfaction on many issues that are useful when formulating policy.

While the correlations measure actual responses from the Gallup World Poll, it is also important to use caution when extrapolating the findings to the entire population. For example, the analysis finds that highly religious people in Lithuania are less likely to desire to emigrate. But, policies that force people to attend religious services will not likely alter a person's desire to emigrate. Furthermore, it would be incorrect to state that all self-identified religious people would not want to emigrate.

The key equation used for this analysis was:

$$\text{Correl (X, Y)} = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}}$$

Where \bar{x} is the average for values of x and \bar{y} is the average for values of y.