



A COMPARATIVE ANALYSIS OF INTERCENSAL IMMIGRANTS IN JAMAICA: 1970 TO 2001

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INTRODUCTION/RATIONALE

- Like the rest of the Caribbean Community, Jamaica has had a long history of international migration
- We have seen movement from a situation of high immigration to one of high emigration
- Despite this, approximately one percent of the current population is foreign born
- This study seek to gain an understanding of the characteristics of this sub population, and how it compares with the native born population

OBJECTIVES

- To ascertain the characteristics of immigrants in Jamaica
- To determine whether the characteristics of the immigrants differ from those of the local born population
- To determine how these characteristics may have changed over time
- To lay the groundwork for further research on international migration in Jamaica

THEORETICAL PERSPECTIVES

○ Theory of Migration

Migration is influenced by pull and push factors, which are affected by a set of intervening obstacles, all interacting with the potential migrants' personal characteristics.

Lee, E.S. (1966). A Theory of Migration. *Demography*, Vol. 3, No. 1. (1966), pp. 47-57.

THEORETICAL PERSPECTIVE

○ Macro Economic Theory

International Migration is caused, in part, by the differences between countries in the supply of and the demand for labour, which results in wage differentials.

Ranis, G. & Fei, J. (1961). A Theory of Economic Development. *The American Economic Review*, Vol. 51, No. 4, pp. 533-565.

Todaro, M. P. (1976). Internal migration in developing countries. International Labour Organisation, Geneva.

THEORETICAL PERSPECTIVE (CONT'D)

○ Neoclassical Micro Economic Theory

All other things being equal, experienced individuals who are highly educated and trained and who have well developed language skills can expect higher remunerations in countries that are relatively poorer than their country of origin, and as such would have an increased propensity to migrate across international boundaries.

Sjaastad, L. A. (1962). The Costs and Returns of Human Migration. *The Journal of Political Economy*, Vol. 7, No. 5, pp. 80-93.

Massey, et al. (1993). Theories of International Migration: A Review and Appraisal. *Population and Development Review*, 19:3, 431-466

METHODOLOGY

- Data from three consecutive censuses: 1982, 1991, 2001. The short form of the 2001 census was used.
- For each census, bivariate analysis was employed to compare the local born population at the census date with all immigrants, and with those immigrants who arrived during the respective intercensal period, i.e. 1970-82; 1983-91; 1992-2001
- Bivariate analysis was used to compare immigrants across all three intercensal periods

METHODOLOGY (CONT'D)

- Binary Logistic Regression was employed to determine any differences between immigrants who arrived before the prior census date and those arriving intercensal as follows:
 - Arrivals before 1970 vs. 1970-1982 Intercensal
 - Arrivals before 1983 vs. 1983-1991 Intercensal
 - Arrivals before 1992 vs. 1992-2001 Intercensal

For the independent variable, 'time of arrival',

0 = Before the intercensal period

1 = During the intercensal period

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 1: Census Local Born, All Immigrants and Intercensal Immigrant Population - Sex Ratios

Census Year	Local Born	Immigrants	
		All	Intercensal
1982	95.5	96.8	101.3
1991	95.7	95	101.8
2001	96.9	100.3	106

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 2: Census Local Born, All Immigrants and Intercensal Immigrant Population – Age Structure

Census Year	Median Age		
	Local Born	Immigrants	
		All	Intercensal
1982	19.5 yrs	23.6 yrs	17.6 yrs
1991	21.6 yrs	31.1 yrs	23.7 yrs
2001	24.8 yrs	33.2 yrs	<u>16.6 yrs</u>

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 3: Census Local Born, All Immigrants and Intercensal Immigrant Population – Age Structure – Age Dependency

	Local Born	Immigrants	
Child Dependency Ratio	↓	↑ All	Intercensal
1982	72.4	39.7	↑ 67.4
1991	61.7	40.1	↑ 69.9
2001	54.0	46.0	↑ 97.9
Aged Dependency Ratio			
1982	↑ 12.5	13.5	1.7
1991	12.6	22.8	13.2
2001	↑ 12.7	21.8	4.7

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 4: Census Local Born, All Immigrants and Intercensal Immigrant Population – Area of Residence (Proportion Urban)

	Local born	Immigrants	
		All	Intercensal
1982	54.2	30.2	28.8
1991	49.3	75.8	76.4
2001	51.7	79.3	78.9

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 5: Census Local Born, All Immigrants and Intercensal Immigrant Population – Legal Marital Status

	Local Born	Immigrants	
Married		All	Intercensal
1982	28.0	42.7	40.9
1991	25.4	50.3	52.1
2001	27.0	48.3	52.9
Never Married			
1982	66.5	49.4	56.1
1991	68.6	38.9	40.3
2001*	49.7	32.3	36.2

FINDINGS (BIVARIATE ANALYSIS) – SELECTED VARIABLES

Table 6: Census Local Born, All Immigrants and Intercensal Immigrant Population – Educational Achievement – 19+Yrs

Educational Level	Local Born	Immigrants	
		All	Intercensal
Primary or Less			
1982	75.0	39.2	19.8
1991	52.3	26.6	20.5
2001	33.7	15.1	6.7
Secondary			
1982	23.2	32.4	32.9
1991	45.7	44.4	44.4
2001	53.2	31.0	23.6
Tertiary			
1982	1.8	28.3	47.3
1991	2.0	29.0	35.1
2001	13.1	53.8	69.7

Table 7: Census Local Born, All Immigrants and Intercensal Immigrant Population – Economic Situation – 14+Yrs*

	Local Born	Immigrants	
Unemployment Rates		All	Intercensal
1982	28.9	15.0	7.4
1991	15.6	4.6	4.1
Employment Sector - Public			
1982	25.0	38.6	46.1
1991	15.4	27.5	31.8
Employment Sector – Private			
1982	40.7	40.9	41.7
1991	51.9	46.4	46.9
Employment Sector – Self			
1982	34.3	20.5	12.2
1991	32.6	26.2	21.3

*These variables not included in Census 2001 Short Form

Table 8: Census Local Born, All Immigrants and Intercensal Immigrant Population – Fertility Measures*

	Local Born	Immigrants	
CBR		All	Intercensal
1982	29.4	22.2	26.6
1991	25.0	14.9	14.9
GFR			
1982	125.1	86.9	93.8
1991	98.7	61.0	64.9
Mean CEB			
1982	3.7	2.4	0.9
1991	1.9	1.0	0.9

*Variables not included in 2001 Short Form

FINDINGS – BIVARIATE ANALYSIS

Table 9: Countries of Origin – Intercensal Immigrants

Countries	1970-1982	1983-1991	1992-2001
United Kingdom	40.7	19.5	14.2
Caribbean Region	15.9	16.9	20.3
United States of America	14.5	29.1	34.2
Canada	5.9	5.9	6.3
Other Countries	23.0	28.6	25.0
Total	100	100	100
N	8,604	11,533	11,206

FINDINGS – MULTIVARIATE ANALYSIS

- For each Census period, binary logistic regression was employed to compare the characteristics of immigrants arriving before the previous census with those arriving during the intercensal period.
- The predictors included: Age, sex, sex of household head, area of residence, marital status, educational achievement, race, employment status, health status and place of birth
- A .05 criterion of statistical significance was employed

FINDINGS – MULTIVARIATE ANALYSIS

Census 1982

- The model was statistically significant with $\chi^2 (17, N = 5,210) = 1,807.14, p <.001$
- Nagelkarke R^2 indicates the model explained 39.4% of the variations in the characteristics of immigrants arriving during the 1970-1982 intercensal period, as opposed to those arriving before the 1970 Census

FINDINGS – MULTIVARIATE ANALYSIS

Census 1991

- This model was also statistically significant with $\chi^2 (18, N = 6,302) = 1,655.25, p <.001$
- Nagelkarke R^2 indicates the model explained 31.6% of the variations in the characteristics of immigrants arriving during the 1983-1991 intercensal period, and those arriving before the 1982 Census

FINDINGS – MULTIVARIATE STATISTICS

Census 2001

- For the 2001 Census, the model was statistically significant, with
 $\chi^2 (15, N = 6,026) = 1,576.87, p <.001$
- Nagelkarke R² indicates this model was able to explain only 24.5% of the variations in the characteristics of those immigrants who arrived during the 1992-2001 intercensal period, compared to those who arrived before the 1970 Census

Table 10: Comparison of Intercensal Immigrants - 1970 to 1982, 1983 to 1991 and 1992 to 2001 - Findings from Multivariate Analyses

Predictors		Odds Ratio		
		1970-1982	1983-1991	1992-2001
Age		0.91	0.94	0.95
<i>Sex (Female) Reference</i>		-	-	-
Sex (Male)		†	1.35	†
<i>Sex of Household Head (Female) Reference</i>		-	-	-
Sex of Household Head (Male)		1.18	1.35	†
<i>Area of Residence (Rural) Reference</i>		-	-	-
Area of Residence (Urban)		†	0.76	0.71
<i>Marital Status (Never Married) Reference</i>		-	-	-
Marital Status (Married)		1.74	1.62	1.69
Marital Status (Common-law)*		-	-	1.45
<i>Health (No Chronic Illness) Reference</i>		-	-	-
Health (Chronic Illness)**		-	†	1.39
<i>Education Level (Primary) Reference</i>		-	-	22.
Education Level (Secondary)		1.20	†	0.71
Education Level (Tertiary)		2.76	1.31	†

Table 10: Comparison of Intercensal Immigrants - 1970 to 1982, 1983 to 1991 and 1992 to 2001 - Findings from Multivariate Analyses (Cont'd)

Predictors		Odds Ratio		
		1970-1982	1983-1991	1992-2001
<i>Race (Other) Reference</i>		-	-	-
Race (Black)		0.36	0.45	†
Race (White) ^{***}		1.45	2.14	-
Race (Mixed)		0.31	0.44	0.76
<i>Place of Birth (Caribbean Region) Reference</i>		-	-	-
Place of Birth (USA and Canada)		1.91	2.02	0.70
Place of Birth (UK)		0.67	0.44	0.32
Place of Birth (Other Countries)		†	0.44	1.48
<i>Employment Status (Unemployed) Reference</i>		-	-	-
Employment Status (Public Sector) ^{****}		†	1.69	-
Employment Status (Private Sector) ^{****}		†	†	-
Employment Status (Self-employed) ^{****}		0.57	0.70	-

CONCLUSIONS/RECOMMENDATIONS

1. Considering the findings that Jamaica is attracting a greater proportion of male than female immigrants, persons who are highly educated, and is employing a significant proportion of these persons in the public sector, the following recommendations are proposed for consideration under the National Population Policy:
 - a) Institute a reward program to encourage more citizens to matriculate for and acquire tertiary education, with a special focus on males.

CONCLUSIONS/RECOMMENDATIONS

- b) To offset the cost of education, which might be a deterrent for many persons, offer more scholarships in the areas of need identified through proper forecasting and succession planning.
- c) Bond recipients for an average of three years in the government service, which is the average length of a full-time programme. By the time the first cohort of beneficiaries would have served their bond, the next cohort will be available to fill the gaps being left.

CONCLUSIONS/RECOMMENDATIONS

- d) In order to retain this highly educated and now experienced workforce, offer compensation packages that are on par with what would have been offered to their immigrant counterparts with comparable education and experience.
2. Finally, in light of the finding that more chronically ill persons are migrating to Jamaica, the implementation of some mechanism to measure the health status of prospective immigrants is timely, as this has implications for increased pressure on the country's already strained social and health services sectors.

THANK YOU

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