# Investigating the Relationship between Family Planning, Labour Force, and Income Fluctuations

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#### **Abstract**

**Introduction:** In this part of the report the overall study aims and objectives and further the research question has been developed.

**Aims:** the main objective of the researcher has been highlighted in this section of the researcher. The aim includes the interconnection of the labour force, family planning, and income fluctuation.

**literature review:** The overall research objective has been elaborated in this section of the study. The link between all three variables has been explained in detail in this part.

**Methodology:** Primary collected data has been presented in the reset to accumulate information about the reserve3 topic., 75 respondents are taken into consideration to conduct the survey and the questionnaire has been developed. The correlation and regression analysis has been presented here.

**Findings:** The gathered data has been analysed here effectively. The overall outcome of the research has been effectively presented in this part more efficiently. The labour force and income influence are highly interrelated to each other analyses in this section.

**Discussion:** This section is a brief analysis of the overall findings of the research.

Conclusion: The summarised detail of the overall project has been explained in this research.

Keywords: family planning, labour force, income fluctuations, inflation, employment rate, etc.

## Introduction

Family planning support to prevent poverty in households. Complications from birth and pregnancy threaten the lives and health of children and women, they can also have some prominence in economics as well for the families. In various countries, the health of maternal care is not free and causes high costs for households for the poor. As per the opinion of Wachter, (2020), The labour force refers to the people who are actively working or looking for a job. Furthermore, fluctuation of income refers to the ups and downs of income of the family members. all these three factors are interconnected with each other. Family planning affects the labour force and

the income of the family at the same time. According to Panos & Wilson, (2020) If the family has more sources and a stable income position then they should have more children and in contrast, if the income of the family is not stable then they can not think of more children.

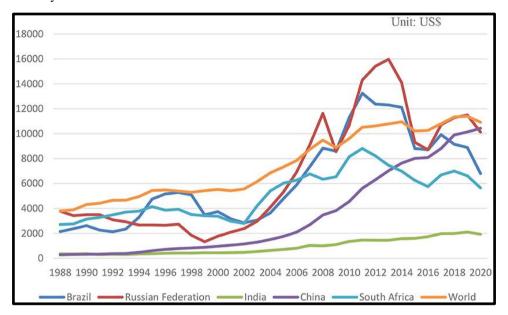


Figure 1: Relationship between family planning and income fluctuation

(Source: Wachter, 2020)

The above figure represents the interconnection between the labour force and family planning in different countries. It has been identified in the figure that in the Russian Federation there is higher interconnection between these variables in the year 2014. Furthermore, it has been identified that India has a low rate of family planning.

- RO1 To examine the connection between inflation and income fluctuation
- **RO2** To analyse the correlation between family planning and income fluctuation
- RO3 To evaluate the interconnection between the labour force and income fluctuation
- RO4 To identify the correlation between unemployment level and income fluctuation
- **RQ1** How does income fluctuation impact the inflation rate?
- **RQ2** How does family planning affect income fluctuation?
- RQ3 What is the relationship between the labour force and income fluctuation?
- RQ4 How unemployment level impacts income fluctuation?

#### Literature review

#### Interconnection between income fluctuation and family planning

Family planning helps to tackle income fluctuation. Income fluctuation can arise at any time and any level so prior developing plans for this fluctuation helps the family. Furthermore, when families are capable of giving the children numbers they can efficiently invest in the well-being of the children and plan for the future. Möhring et al. (2021), This planning includes providing better living conditions, nutrition, education and health care, and higher education opportunities.

Richer countries have less fertility rates as compared with the poor ones and the high-income group families have fewer children as compared with low-income group families. as stated by Sabri, Wijekoon, & Rahim,

(2020) The family planning of many families has been highly dependent on the income level of the family. It also supports women to prevent various health risks that might arise before, during, or after the children's birth.

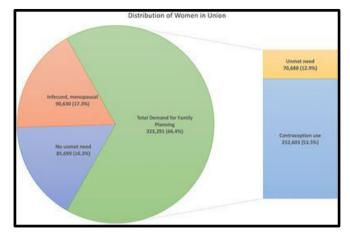


Figure 1: Relationship between family planning and income fluctuation

(Source: Sabri, Wijekoon, & Rahim, 2020)

The above figure highlights that family planning and income function has to share a positive relation. Income fluctuation of the family might affect the family plan of the families.

#### Impact of the labour force on the income fluctuation

The number of workers involves children and women, whose yearly income is less than the male worker. Hence, the proportion of children and women in the labour force will decline in the income level of the community and observe a negative relationship between them. Many workers occur the cycle over, with their high month has been an expense on the economy and grows the demand of the market further. As per the opinion of Nkhoma, Sitali, & Zulu, (2022), The level of the labour force positively or negatively impacts income fluctuation. In addition, the availability of more labour decreases the income of the individual level and in contrast, the labour force is decreased and the per-individual income level has been highly increased. Employed and unemployed factors highly impact the labour force.

At a low employment level, the income of people is low and they can save or consume very little income. If the employment increases the income will also increase the expenses of their ae proportionally increase. Many factors affect the labour force and the income fluctuations such as the inflation rate, availability of cheap labour, and the GDP rate of the country. According to Berger, & Carlson, (2020), The interrelationship between the labour force and income is certain and good inversely. The labour force is a key player in the market and the factor that influences the fluctuation of income.

#### Relationship between the labour force and family planning

Family planning highly impacts the labour force, if the family has a stable and high-income position they plan for more kids. As per the opinion of Kabukcu, & Chabal, (2021) If more births are encountered then the labour force in the economy automatically increases. Furthermore, if the family no longer wants more kids, then in the future the labour force in the market will decrease. Family. The participation of the labour force impacts marital fertility adversely through the mechanism of intervening in family planning practice. The labour force is adversely impacting family planning. It has been identified as the positive women's labour force with the per capita GDP of the country. According to Valaskova, Durana, & Adamko, (2021), Family planning increases and positively influences the GDP of the country and the country has an excess or less population. There have been various aspects that impact family planning in addition, it contributes to the income of the country as well.

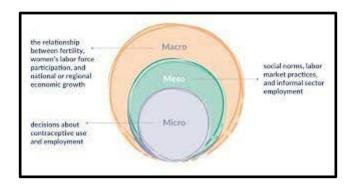


Figure 2: Relationship between family planning and income fluctuation

(Source: Nkhoma, Sitali, & Zulu, 2022)

The above figure describes the link between the influence of income and family planning. Furthermore, it has been observed that family planning is a key element of the force of labour in the market.

## Methodology

In this study, primary "Quantitative Analysis" has been presented to gather information about the link between family planning, labour force, and income fluctuation. As per the view of Buchmueller, (2021), This analysis helps the researcher to collect more relatable and trustworthy data from the research. The survey has been conducted to accumulate information from direct sources. Additionally, the SPSS has been conducted among 75 respondents to dynamically present the accumulated data through graphs and tables. It does not need any different software to interpret the data. SPSS increases the result accuracy and provides high insight into the research outcomes. It supports analysing a bigger database in very less time.

## **Findings**

## **Demographic of respondents**

"Age"

What is your age?								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	18-25	12	16.0	16.0	16.0			
	26-32	44	58.7	58.7	74.7			
	33-42	19	25.3	25.3	100.0			
	Total	75	100.0	100.0				

Table 1: Age of respondent

(Source: SPSS)

The above table highlights that the frequency of 26-32 age group respondents is more in the research. The 19 frequencies for the 33-42 age group and the 12 frequency for the 18-25 age group.

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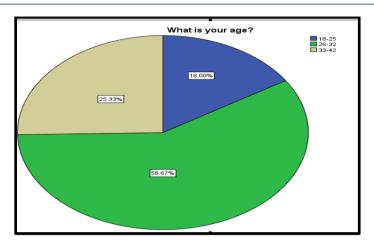


Figure 3: age percentage

(Source: SPSS)

The above figure states that the 26-32 age group is 58.67%,25.33% for the 33-42 age group respondents. 16% stood for the 18 to 25 age group. So, most respondents belong to the age group of 26 to 32.

## "Gender"

## What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	50	66.7	66.7	66.7
	Male	19	25.3	25.3	92.0
	Prefer not to say	6	8.0	8.0	100.0
	Total	75	100.0	100.0	

Table 2: Gender analysis

(Source: SPSS)

The above table describes that the frequency of female members in the research is 50 and 19 is for the male respondents. The 6 respondents chose not to describe their gender.

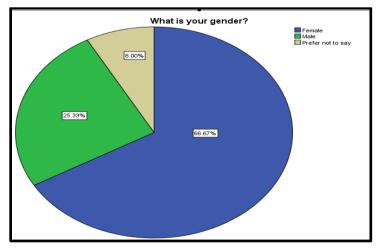


Figure 4: Gender percentage

(Source: SPSS)

The above figure proposed that 66.67% are female respondents, 25.33% are male respondents, and 8% selecting not to choose. Hence, the result represents that more respondents are female participants in the research.

#### "Income level"

What is your income level?								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	10000-19000	12	16.0	16.0	16.0			
	20000-29000	26	34.7	34.7	50.7			
	30000-39000	24	32.0	32.0	82.7			
	40000-49000	13	17.3	17.3	100.0			
	Total	75	100.0	100.0				

Table 3: income analysis of respondents

(Source: SPSS)

The above table demonstrates that the frequency of 20000-29000 income group people is more as compared with others. It has been identified that 26 belong to this category and 24 respondents from the 30000 to 390000 income group, further frequency of 40000 to 49000 income group people are 13.

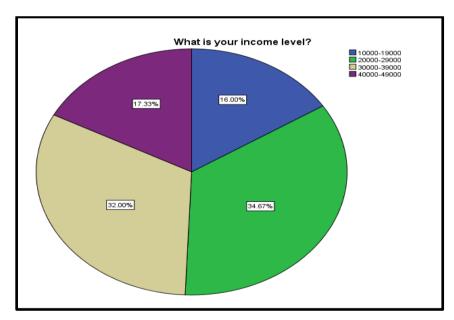


Figure 5: Income analysis

(Source: SPSS)

The above graph shows that 20000 to 29000 income groups are 34.67%, and 32% belong to 30000 to 39000. 40000 to 49000 respondents are 17.33%. So, it has been analysed that more respondents belong to the 200,000 to 290000 income group.

#### Descriptive analysis

				escriptive S	Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation	Skew	ness	Kurt	osis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IV 1	75	1	5	3.32	1.387	568	.277	-1.139	.548
DV	75	1	4	3.23	.953	-1.149	.277	.416	.548
IV 2	75	1	5	3.97	1.325	-1.167	.277	.128	.548
IV 3	75	1	5	3.35	1.409	436	.277	-1.020	.548
IV 4	75	1	5	2.99	1.289	208	.277	-1.337	.548
Valid N (listwise)	75								

Table 4: Descriptive analysis

(Source: SPSS)

The table states that IV1 SD is 1.397, DV is .953, 1.326, 1.326 are the IV2, iv3 stood at 1.409 and the iv4 stood at 1.289. Further, the mean statistics has been analysed as IV1 is 3.32, 3.97 for IV2, 3.35 for IV4, and the DV stood at 3.23.

# "Regression"

Model Summary <sup>b</sup>							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson		
1	.323ª	.104	.092	.908	2.009		

a. Predictors: (Constant), IV 1b. Dependent Variable: DV

# **ANOVA**<sup>a</sup>

Mod	lel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.999	1	6.999	8.494	.005 <sup>b</sup>
	Residual	60.148	73	.824		
	Total	67.147	74			

a. Dependent Variable: DVb. Predictors: (Constant), IV 1

### Coefficients<sup>a</sup>

	Unstandardize	d Coefficients	Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	2.490	.273		9.106	.000
IV 1	.222	.076	.323	2.914	.005

Table 5: IV 1 with the DV

(Source: SPSS)

The above table highlights the relationship of DV with IV1. Beta has been identified as .323 and the significance value stoos at .005

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Model Summary	b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.647ª	.419	.411	.731	2.593

a. Predictors: (Constant), IV 2 b. Dependent Variable: DV

## **ANOVA**<sup>a</sup>

	Model		Sum of Squares	df	Mean Square	F	Sig.
Γ	1 F	Regression	28.124	1	28.124	52.611	.000Ъ
ı	F	Residual	39.023	73	.535		
ı	Т	「otal	67.147	74			

a. Dependent Variable: DV b. Predictors: (Constant), IV 2

#### Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1 (	Constant)	1.378	.268		5.134	.000
1	V 2	.465	.064	.647	7.253	.000

Table 6: IV 2 with the DV

(Source: SPSS)

These figures demonstrate the relationship between DV with IV2. The significance value stood at .000 and the beta of this is .647.

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.303ª	.092	.079	.914	2.272

a. Predictors: (Constant), IV 3

b. Dependent Variable: DV

#### **ANOVA**<sup>a</sup>

Mod	iel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.167	1	6.167	7.382	.008b
l	Residual	60.980	73	.835		
ı	Total	67.147	74			

a. Dependent Variable: DV

b. Predictors: (Constant), IV 3

# Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	2.541	.273		9.292	.000
	IV 3	.205	.075	.303	2.717	.008

a Donondont Variable: DV

Table 7: IV 3 with the DV

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(Source: SPSS)

IV3 and the DV relationship highlights in this figure. The beta value tattoos ar3030 and the re\gressiondf value identifies as 1 and the residual is 73. The significant value stops at .008.

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.036ª	.001	012	.958	2.086

a. Predictors: (Constant), IV 4b. Dependent Variable: DV

#### **ANOVA**<sup>a</sup>

Mo	del	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.085	1	.085	.092	.762 <sup>b</sup>
l	Residual	67.062	73	.919		
l	Total	67.147	74			

a. Dependent Variable: DV b. Predictors: (Constant), IV 4

## Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Mo	odel	В	Std. Error	Beta	t	Sig.
1	(Constant)	3.148	.281		11.210	.000
L	IV 4	.026	.086	.036	.304	.762

Table 8: IV 4 with the DV

(Source: SPSS)

The above table highlighted the co-connection between the DV and the IV4 in the table. It has been analyzed that the significance value of is .762 and the beta value of is .036 of the IV4.

# "Reliability"

Reli	ability Statistics	
Cronbach's	Cronbach's Alpha Based on Standardized Items	N of Items
Alpha	items	14 of figure
.566	.585	5

# **Table 9:Reliability statistics**

(Source: SPSS)

The above table describes that Cronbach's alpha based on standardised items has stood at .585 and the Cronbach's alpha has stood at .5666.further the total no of items is 5.

#### "Correlation"

		Col	rrelations				
			IV 1	DV	IV 2	IV 3	IV 4
Kendall's tau_b	IV 1	Correlation Coefficient	1.000	.137	.311**	.274**	220*
		Sig. (2-tailed)		.178	.002	.005	.026
		N	75	75	75	75	75
	DV	Correlation Coefficient	.137	1.000	.430**	.089	027
		Sig. (2-tailed)	.178		.000	.366	.785
		N	75	75	75	75	75
	IV 2	Correlation Coefficient	.311**	.430**	1.000	.161	362**
		Sig. (2-tailed)	.002	.000		.098	.000
		N	75	75	75	75	75
	IV 3	Correlation Coefficient	.274**	.089	.161	1.000	.294**
		Sig. (2-tailed)	.005	.366	.098		.002
		N	75	75	75	75	75
	IV 4	Correlation Coefficient	220 <sup>*</sup>	027	362**	.294**	1.000
		Sig. (2-tailed)	.026	.785	.000	.002	
		N	75	75	75	75	75

**Table 10:Correlations** 

(Source: SPSS)

The above table highlights that the Dv of the IV1 stood at .137, 4.30 for the Iv2, 0.89 for the IV3, and .027 for the iv4. Further, it has been identified that DV is correlated with all independent variables.

#### KMO AND BARTLETT'S TEST

K	MO and Bartlett's Test	
Kaiser-Meyer-Olkin Me	asure of Sampling Adequacy.	.405
Bartlett's Test of Sphericity	Approx. Chi-Square	103.386
	df	10
	Sig.	.000

Table 11:KMO and Bartlett's Test

(Source: SPSS)

The above tables state that Kaiser-Meyer identifies as .405, Bartlett's test of sphericity identifies as 103.386, and the pdf of which 10 and the significant value analysis as .000.the value is less than 0.05 hence the hypothesis is rejected.

## Discusson

Family planning affects the income and the labour force of the family. If the family has lots of members then the labour force has been increased. The income function is obtuse between opting for the more child. According to Albanesi, & Kim, (2021), The financial condition and position of the family are major factors that influence the overall choice of family planning. The Labour force includes all the members, females and males. Further, it has

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been suggested by the researcher that the unemployment and inflation rates of the country also have some considerable impact on the labour market.

In addition, family planning helps to mitigate the overpopulation challenges and secure natural resources for the future generation. If the population increases highly then the natural resource will easily vanish. Family planning provides a healthier and more comfortable life for the future generation and the kids feel more comfortable. These all factors are identified in the researcher's interconnected with each other in different ways. According to Brell, Dustmann, & Preston, (2020) In addition, the GDP of any country also influences these variables and aspects. Hence, proper planning of the family helps to tackle many issues and problems in the family.

#### Conclusion

It has been concluded that there is a strongrelationship between family planning, labour force, and income fluctuations. On the other hand, the level of the labour force has a great influential impact on income fluctuation. In addition, the availability of more labour lowers the income of the individual level. It has also been expressed that the employed and unemployed factors highly impact the labour force in a country. However, in different countries, the health of maternal care is not free and the labour force highlights the people who are actively working or searching for a job.

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#### **Appendices**

What is your age?

**Appendix: Survey Question** 

**Survey** link: https://docs.google.com/forms/d/1vkKumZGfn-Ziew4mLVNvww2pPoqIUlp9bt\_j4LufYB0/edit#responses

Investigating the relationship between family planning, labour force, and income fluctuations

18-25
26-32
33-42
43-52
What is your gender?
Male
Female
Prefer not to say
What is your income level?
10000-19000
20000-29000
30000-39000
40000-49000
Strongly disagree
Disagree

Neutral Agree

Strongly agree

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Higher rates of inflation lower the growth of the economy

Income fluctuation has a great influence on Inflation and other financial instability

Inflation negatively impacts the income fluctuation

The labor force has positive influence on the income fluctuation

Income fluctuation decrease the availability of labor force in the market

High labor available in the market decrease the income of an individual

High income increases the number of children in family

Family planning highly depends on the income capacity of family

High kids decrease the income of family

The unemployment level decreases the income of the family

Unemployment level increases the income of the family

Income fluctuation impact the level of unemployment.