CHAPTER VI

FINDINGS, HYPOTHESIS
TESTING, POLICY
IMPERATIVES AND
CONCLUSION
Introduction:

This chapter is organized in the following manner. First section of the chapter, presents major findings from the preceding chapters, second section of this chapter presents testing of hypotheses and the third section of the chapter presents policy imperatives and conclusion.

Section I:

This section provides major findings of the preceding chapters.

Chapter one presents introduction to the study, statement of problem, objectives, hypotheses, methodology and organization of the study.

Chapter two presents review of literature and a brief history to the human development. In the same chapter definitions by various social scientists and different human development reports have also given. The gist of the chapter has given below.

It has observed that human being is the centre of development. Development without human development is meaningless and of no use. Hence the concept of the development measure has changed from economic to human development. Today all the countries in the world have tried to achieve higher human development through better health facilities, education, income earning opportunities and to have a decent standard of living. Therefore, it has been widely accepted that better education leads to more income earning opportunities, which in turn result in decent standard of life, which reflects the human development. it also confirmed from the above arguments, economic development and human development have circular linkages, in the initial stages of development, economic development leads human development, however, later human development leads to better economic and human development.

The chapter three has analyzed the disparities in human development in South Asia, India and J&K.

It was found that there are disparities in human development of the South Asian countries. It was also found that human development of Sri Lanka was higher than other South Asian countries. However, there are no differences in human development of other South Asian countries namely, India, Pakistan, Bangladesh and Nepal.
It was found that there are disparities in human development, among the states of India during the year 1981. Human development of Kerala and Punjab was significantly higher than other Indian states. At the same time human development of Bihar and Madhya Pradesh was lower than other selected Indian states. Moreover, at the same time human development of rest of the states was not significantly different from one another.

It was also found that there are disparities in human development among the states of India during year 1991. Human development of Kerala was significantly higher than other Indian states. At the same time human development of Bihar, Madhya Pradesh and Uttar Pradesh was significantly lower than other selected Indian states. Moreover, the human development of the rest of the selected states was not significantly different from one another.

It was further found that there are disparities in human development among the states of India during the year 2001. Human development of Kerala was significantly higher than other selected Indian states. Whereas the human development of Assam, Bihar and Uttar Pradesh was significantly lower than other selected Indian states. And at the same time the human development of the rest of the selected states was not significantly different from one another.

It was furthermore found that there are disparities in human development among the districts of Jammu and Kashmir during the year 2002-03. Human development of Leh, Kathua and Jammu districts was significantly higher than other districts of Jammu and Kashmir. Whereas the human development of Budgam and Kupwara districts was significantly lower than other districts of Jammu and Kashmir. And at the same time the human development of the rest of districts was not significantly different from one another.

It was also found that all the districts of Jammu and Kashmir are not having same level of income. Pulwama and Kathua districts were at high level income group and Kupwara district was at low level income group. At the same, remaining districts were at medium level income.

It was also found that the districts of Jammu and Kashmir are not having same level of health. Srinagar was at high level health group. Kargil district
was at low level health group. Remaining districts were at medium level health group.

- It was found that the districts of Jammu and Kashmir are not having same level of education. It was also found that Leh, Kathua and Jammu districts were at high level of education among the districts of Jammu and Kashmir. Budgam, district was at low level of education group among the districts of Jammu and Kashmir. Remaining districts were at medium level education group.

In the chapter four, an attempt has made to analyze the status of income and health along with gender disparities in education. The findings of the chapter are given below.

- It was found that there was significant difference between the backward and forward districts in terms of Per Capita NDDP and at the same time per capita NDDP of backward district was significantly less compared to forward district during the reference period.

- It was found that there were gender disparities in educational sector of Jammu and Kashmir. At primary, middle and high school level, there were more numbers institutions meant for male compared to institutions meant for female. At the same time, there were more numbers of males enrolled compared to females at primary, middle and high school level. In the mean time, there were more numbers of male teachers available compared to female teachers at primary, middle and high school level. The analysis further shows that male literacy rate was higher than female literacy rate during year 1981, 2001 and 2011.

- It was further found that the number of male population was higher than female during the year 1981, 2001 and 2011.

- It was also found that there were disparities among urban and rural areas in terms of neo-natal mortality, post neo-natal mortality, infant mortality, child mortality and early childhood mortality rates.

- It was found that there were inequalities in early childhood mortality rates by background characteristics like residence, education, religion, caste/tribe, wealth index, child's sex and mothers’ age at birth in terms of neo-natal, post neo-natal, infant, child, and under-five mortality rates.
It was also found that there were disparities in health problems in terms of number of women and men per thousand who have health problems like diabetes, asthma, goitre or other thyroid disorder with background characteristics like age, residence, education and wealth index. It can be seen that more number of women suffering from the above mentioned diseases compared to men.

It was furthermore found that disparities in terms of morbidity rates among male and female in Jammu and Kashmir. It was found that the prevalence of blindness, tuberculosis, and malaria show disparities in terms of residence (rural and urban) and in terms of gender i.e. male and female. More numbers of females were suffering from the above mentioned compared to males. In the mean time, more numbers of rural residents were suffering from the above mentioned diseases than urban residents.

It was found that there were also disparities in terms of morbidity rates among the districts of Jammu and Kashmir. It was found that the prevalence of blindness, tuberculosis, and malaria show disparities between the districts of Jammu and Kashmir.

Chapter five presents profile of Jammu and Kashmir. It also presents various programmes launched for women empowerment by state and central governments in Jammu and Kashmir. This chapter analyzed the primary data collected from the field survey.

It was found that males have got highest educational qualification at household level compared to females. It was also found that males in Srinagar district have got highest educational qualification at household level compared to Budgam district. It was further found that urban males have got highest educational qualification at household level compared to rural males.

It was found that females in Srinagar district have got highest educational qualification at household level compared to Budgam district. It was also found that urban females have got highest educational qualification at household level compared to rural females.
It was also found that Srinagar district has got highest educational qualification compared to Budgam district. It was also found that urban area has got highest educational qualification compared to rural area.

It was found that more number of respondents from Srinagar district approved that male children should have freedom of going for higher education compared to Budgam district. More number of urban respondents approved that male children should have freedom of going for higher education compared to rural areas. It was further found that more number of male respondents approved that male children should have freedom of going for higher education compared to female respondents.

It was found that more number of respondents from Srinagar district approved that female children should have freedom of going for higher education compared to Budgam district. More number of urban respondents approved that female children should have freedom of going for higher education compared to rural areas. It was further found that less number of male respondents approved that female child should have freedom of going for higher education compared to female respondents.

It was found that more number of respondents from Srinagar district approved that male children should have choice of education compared to Budgam district. It was also found that more number of urban respondents approved that male children should have choice of education compared to rural areas. It was further found that more number of male respondents approved that male children should have choice of education compared to female respondents.

More number of respondents from Srinagar district approved that female children should have choice of education compared to Budgam district. More number of urban respondents approved that female children should have choice of education compared to rural areas. It was further found that more number of male respondents approved that female children should have choice of education compared to female respondents.

More number of male respondents had opportunity for school education and college education compared to female respondents.

More number of male respondents had accessibility to school education and college education compared to female respondents.
More number of male respondents had utilization of school education and college education compared to female respondents.

It was found that more number of respondents said that they have utilized the educational benefits in Srinagar district compared to Budgam district. It was also found that more number of urban respondents said that they have utilized the educational benefits compared to rural respondents. It was further found that less number of male respondents said that they have utilized the educational benefits compared to female respondents.

More number of respondents said that females of their household take decision regarding healthcare check-up in Srinagar district compared to Budgam district. Less number of respondents said that females of their household take decision regarding healthcare check-up in urban areas compared to rural areas. Less number of male respondents said that females of their household take decision regarding healthcare check-up compared to female respondents.

More number of respondents from Srinagar district said that females of their household are aware of the health care programmes launched by the government for women compared to Budgam district. More number of urban respondents said that females of their household are aware of the health care programmes launched by the government for women compared to rural respondents. Less number of male respondents said that females of their household are aware of the health care programmes launched by the government for women compared to female respondents.

More number of respondents said that both (husband and wife) take decision regarding the size of the family in Srinagar district compared to Budgam district. Less number of respondents said that both (husband and wife) take decision in urban areas compared to rural respondents. Less number of males said that both (male and female) take decision compared to female respondents.

It was found that male and female respondents of Srinagar district work lesser hours daily at work-place compared to Budgam district. It was also found that respondents of urban areas work for more hours daily at work-place compared to rural areas. It was further found that male respondents
work for more hours daily at work-place office compared to female respondents.

- It was found that male and female respondents of Srinagar district work for more hours daily at house-place compared to Budgam district. It was also found that respondents of urban areas work for more hours daily at house-place compared to rural areas. It was further found that male respondents work for lesser hours daily in house-place compared to female respondents.

- Either more males take decision or both (male and female) take decision in terms of sale and purchase of asset creation, investment, saving, land, house, jewellery, automobiles, electronic gadgets and household produce.

- It was found that females were not independently taking decision in sale and purchase of asset creation, investment, saving, land, house, jewellery, automobiles, electronic gadgets and household produce.

**Hypotheses Testing:**

The constructed hypotheses are tested in the following section.

**Hypothesis 1:**

H₀: There are no inter-state variations in human development of India.

H₁: There are inter-state variations in human development of India.
The above table presents comparative information about human development of Indian states for the year 2001. It is clear from the above table that Kerala was at high-level human development among selected states of India. Whereas, states like Assam, Bihar and Uttar Pradesh were at low level of human development, among selected states of India. In the meantime, remaining twelve states were at the medium level of human development.
Comparison of Human Development among the States of India
during 2001

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.052</td>
<td>2</td>
<td>0.026</td>
<td>11.850***</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>0.028</td>
<td>13</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.080</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***Significant at One Percent Level

The ANOVA result reveals that there are differences among the groups in terms of human development values. The test confirms that the differences among the groups i.e. high, medium and low are statistically significant at one percent level. Hence, the selected states of India were not having same level of human development.

**Hypothesis 2:**

$H_0$: There is no significant difference in per-capita NDDP between forward and backward districts.

$H_1$: There is significant difference in per-capita NDDP between forward and backward districts.

**Per Capita Net District Domestic Product during 2007:**

To estimate the difference in the Per Capita NDDP among the districts; the study used dummy variable model. Where the Per Capita NDDP was dependent variable and district was independent dummy variable. For the disparity analysis backward districts were considered as benchmark.

To identify the presence of disparity the following model is used.

$Y_i = \alpha + \beta_1 D_{1i} + U_i$

Where,

$Y_i = \text{Per Capita NDDP}$

$D_{1i} = 1$ if forward district

$= 0$ otherwise (if not forward district, means backward district)
Ŷᵢ = 19716.75 +6665.25 Dᵢ₁

\[ t: (15.518) \quad (3.434) \]

Sig: (0.000) (0.005)

R²: 0.704

Ŷᵢ is an estimated model, presents the results for dummy variable regression model fitted to identify the significant difference between forward districts and backward districts. It is found from the results that the model fitted with fairly good R² value of 0.704. It is revealed from the constant that the average per capita NDDP (the benchmark-backward districts) was Rs. 19716.75 and it is accepted at one percent level. The sign of the dummy (forward districts) coefficient is positive and the value is Rs. 6665.25 and it is accepted at one percent level. This means, on an average the Per Capita NDDP for forward districts was higher by Rs.6665.25 compared to benchmark. Therefore, there is significant difference between the backward and forward districts in terms of Per Capita NDDP and at the same time Per Capita NDDP of backward district was significantly less compared to forward district.

**Hypothesis 3:**

H₀: There is no significant difference between male and female literacy rate.

H₁: There is significant difference between male and female literacy rate.

**Literacy 2011:**

To estimate the difference in literacy for male and female; the study used dummy variable model. Where the literacy rate was dependent variable and gender (male and female) was independent dummy variable. For the disparity analysis male considered as benchmark. The model is as follows

To identify the presence of gender, the following model is used.

\[ Yᵢ = α + β₁Dᵢ₁ + Uᵢ \]

Where,

\[ Yᵢ = \text{Literacy rate} \]

\[ Dᵢ₁ = 1 \text{ if female} \]

\[ = 0 \text{ otherwise (if not female)} \]


\( \hat{Y}_i = 77.37 - 22.12 D_{1i} \)

t: (44.348) (-8.968)

Sig: (0.000) (0.000)

\( R^2: 0.811 \)

\( \hat{Y}_i \) is an estimated model, presents the results for dummy variable regression model fitted to identify the significant difference between benchmark and the dummy. It is found from the results that the model is good fitted with high \( R^2 \) value of 0.811. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The t-values and significant levels help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average literacy rate of male (the benchmark) was 77.37 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 22.12 and it is accepted at one percent level. This means, on an average the literacy rate of female were less by 22.12 compared to benchmark. Therefore, there is significant difference between male and female literacy rate. At the same time, female literacy rate was significantly less compared to male literacy rate.

**Hypothesis 4:**

\( H_0: \) The female population is not significantly less compared to male population.

\( H_1: \) The female population is significantly less compared to male population.

<table>
<thead>
<tr>
<th>Sex Ratio during 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Ratio</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Value = 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>Sex Ratio</td>
</tr>
</tbody>
</table>

***Significant at One Percent Level. Computed results by using Census 2011 data for Jammu and Kashmir
It is found from the above table that during the year 2011, the minimum sex ratio was 583, the maximum sex ratio was 951 and the average sex ratio in Jammu and Kashmir was 875. It is found from the t-test that the difference with test value (1000) and average sex ratio is 125 and this difference is statistically significant at one percent level. Therefore, the female population during 2011 was significantly less compared to male population.

**Hypothesis 5:**

\(H_0\): At household level women have equal level of education with men.

\(H_1\): At household level women have lower education than men.

**Comparison of Highest Education between Male and Female at Household Level**

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>240</td>
<td>12.50</td>
<td>4.03</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>240</td>
<td>10.23</td>
<td>4.91</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumptions</td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>9.224</td>
<td>0.003</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***Significant at One Percent Level.

The above table presents comparative information about highest education qualification of male and female in each sample household of Srinagar and Budgam district. It is found from the F test that the difference in variance between the groups is statistically significant. Hence the equal variance has not assumed. It is found from the
group statistics that the average highest education level of male was 12.50 and for females it was 10.23. The difference between male and female highest education level was 2.27. The independent t-test reveals that the difference between male and female highest education level is statistically significant at one percent level. Hence, there are significant differences between males and females in terms of having highest educational qualifications at household level. Therefore, males have got highest educational qualification at household level compared to females.

**Hypothesis 6:**

H₀: There are no significant difference in market place and house place work allocation between male and female.

H₁: There are significant difference in market place and house place work allocation between male and female.

**Comparison of Working Hours in Office between Male and Female at Household Level**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>120</td>
<td>7.2167</td>
<td>3.30313</td>
<td>0.30153</td>
</tr>
<tr>
<td>Female</td>
<td>120</td>
<td>2.8667</td>
<td>3.79945</td>
<td>0.34684</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>29.467</td>
<td>0.000</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***Significant at one percent level.
The above table presents comparative information about daily working hours at work-place between male and female respondents. It is found from the F test that the difference in variance between the groups is statistically significant. Hence the equal variance has not assumed. It is found from the group statistics that the average daily working hours of male was 7.2 hours and it was 2.86 for female respondents. The difference between two was 4.35. The independent t-test reveals that the difference in daily working hours at work place between male and female respondents is statistically significant at one percent level. Hence, there are significant differences in terms of daily working hours at work-place between male and female. Therefore, male respondents work for more hours daily at work-place than female respondents.

**Comparison of Working Hours at House-place between Male and Female**

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
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<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
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<tbody>
<tr>
<td>Assumptions</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
</tr>
</tbody>
</table>

***Significant at One Percent Level

The above table presents comparative information about daily working hours at house-place between male and female respondents. It is found from the F test that the difference in variance between the groups is statistically significant. Hence the equal variance has not assumed. It is found from the group statistics that the average daily working hours at house-place of male were 3.55 hours and 9.08 hours for female
respondents. The difference between two was 5.53. The independent t-test reveals that the difference in daily working hours at house-place between male and female respondents is statistically significant at one percent level. Hence, there are significant differences in terms of daily working hours at house-place between male and female. Therefore, male respondents work lesser hours daily at house-place than female respondents. Accordingly, women are engaged in unpaid non-remunerative works and men are engaged in paid and remunerative works.

**Policy Imperatives:**

The following suggestions have made based on the present study.

- It has been found from the study that human development of Bihar, Uttar Pradesh, and Madhya Pradesh was quite low compared to other Indian states. Hence, the governments of respective states and government of India should introduce special packages to improve the education and health system and should create opportunities for work by introducing productive economic activities in these states.

- It has been found that the major reasons for gender disparities are not availability of equal opportunities, accessibilities to school and college education for both male and female. Hence, opportunities and accessibilities should have been given to both male and female equally in order to minimize the gender disparity in education. Therefore, governments should take necessary actions in the form of constructing more schools for female nearing to their house-places and improve school infrastructure like toilet, drinking water particularly to facilitate female students. At the same time appointing more number of female teachers could be a positive step which will increase the female enrolment. Introducing and increasing the fellowships particularly for females at all levels of education will help in reducing the gender disparity.

- It has been found that more number of women in general and rural women in particular suffering from the diseases like asthma, goiter and diabetes compared to men. Blindness, tuberculosis, and malaria were also found more in women than men. Hence, it can be said that the health problems of women are immense and should be tackle with high priority. Otherwise the sex ratio will be reduced further.
Therefore, it is the responsibility of government to provide required health facilities on priority basis to women to tackle the health diseases.

- The study has observed that less number of women work at market-place and more number of women engaged in house-place which is less-paid or no-paid. As a matter of fact women hardly participate in decision making. Therefore, there is a need of making job reservation (positive discrimination) for women in order to improve the economic status of women and thereby to achieve women empowerment.

**Conclusion:**

In the present study, an attempt has been made to analyze the disparity in general and gender disparity in particular. The study has observed that there are significant gender disparities in education, health, work and decision making between male and female. Disparities in opportunities, accessibilities and utilization of education were the major reasons for all kinds of disparities. Hence, it is the responsibility of respective governments and policy makers to develop the policies and programmes to create equal opportunities to both male and female. It is also equally important to create awareness in order to access and utilize the facility. Hence, the study concludes that equal opportunities, accessibilities and utilization are pre-conditions for eliminating gender disparities. The present study is a humble and sincere attempt. In this direction, addressing the major issues of gender disparities based on human development dimensions.