CHAPTER IV

GENDER DISPARITIES IN EDUCATION, HEALTH AND INCOME
Introduction:


Section I:

Disparities in Income:

As a backdrop to gender analysis the income disparity was analyzed since it is one of the components of human development. Since the disaggregated data are not available for male and female separately, the district level Per Capita Net District Domestic Products was used for disparity analysis. The purpose of this analysis was to identify the significant differences among the districts of Jammu and Kashmir.

Methodology:

For the present analysis the dummy variable regression models were used to identify the significant difference among the districts of Jammu and Kashmir. The districts have been categorized as forward and backward districts. The Per Capita Net District Domestic Product (PNDDP) has taken for the districts in order to identify the level of economic development. Based on income level of the districts as per the government categorization it has been considered that Srinagar, Leh, Jammu, Pulwama, Udampur and Kathua are the forward districts and the remaining districts namely; Budgam, Anantnag, Baramulla, Kupwara, Doda, Poonch, Kargil and Rajouri are considered as backward districts. The data are collected Economic Surveys of Jammu and Kashmir published annually by the Directorate of Economics and Statistics, Government of Jammu and Kashmir. The data are collected for the period from 2003 to 2007, which are presently available.

Modeling for Disparity Analysis:

For the disparity analysis dummy variable econometric models were used, since nominal scale is operating, the dependent variable income is a quantitative variable and the independent variable dummy is a qualitative and nominal variable. This model
explains the presence or not presence of an attribute. To avoid the dummy variable trap \( n - 1 \) dummy variables were used in the model. 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 forward and backward districts represent by dummy which was an independent variable. For the disparity analysis backward districts were considered as benchmark.

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

\[
Y_i = \alpha + \beta_1 D_{1i} + U_i
\]  
___________ (4.1)

Where,

\( Y_i = \) Per Capita NDDP  
\( D_{1i} = 1 \) if forward district  
\( = 0 \) otherwise (if not forward district, means backward district)

**Per Capita Net District Domestic Product during 2003:**

The following results are computed for the income in the year 2003.

\[
\hat{Y}_i = 13138.62 + 3395.87 D_{1i}
\]

\[
t: (24.552) \quad (4.154)
\]

\[
\text{Sig:} \quad (0.000) \quad (0.001)
\]

\[
R^2: 0.768
\]

\( \hat{Y}_i \) 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 \( R^2 \) value of 0.768. 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 Per Capita NDDP (the benchmark-backward districts) was Rs. 13138.62 and it is accepted at one percent level. The sign of the dummy (forward districts) coefficient is positive and the value is Rs. 3395.87 and it is accepted at one percent level. This means,

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on an average the per capita NDDP for forward districts was higher by Rs. 3395.87 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 districts was significantly less compared to forward districts.

**Per Capita Net District Domestic Product during 2004:**

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.

\[ Y_i = \alpha + \beta_1 D_{1i} + U_i \]  \[ (4.2) \]

Where,

- \( Y_i = \) Per Capita NDDP
- \( D_{1i} = 1 \) if forward district
- \( = 0 \) otherwise (if not forward district, means backward district)

\[ \hat{Y}_i = 14880.5 + 4042 D_{1i} \]

<table>
<thead>
<tr>
<th>t:</th>
<th>(23.769)</th>
<th>(4.227)</th>
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<tbody>
<tr>
<td>Sig:</td>
<td>(0.000)</td>
<td>(0.001)</td>
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<tr>
<td>( R^2 ):</td>
<td>0.773</td>
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\( \hat{Y}_i \) 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 \( R^2 \) value of 0.773. It is revealed from the constant that the average Per Capita NDDP (the benchmark-backward district) was Rs.14880.5 and it is accepted at one percent level. The sign of the dummy (forward districts) coefficient is positive and the value is Rs. 4042 and it is accepted at one percent level. This means, on an average the Per Capita NDDP for forward districts was higher by Rs.4042 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 districts was significantly less compared to forward districts.
**Per Capita Net District Domestic Product during 2005:**

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,

- \(Y_i\) = Per Capita NDDP
- \(D_{1i}\) = 1 if forward district
  = 0 otherwise (if not forward district, means backward district)

\(\hat{Y}_i = 17389.50 + 5141.66 \ D_{1i}\)

\(t: \ (20.162) \ (3.903)\)

\(\text{Sig: (0.000) (0.002)}\)

\(R^2: 0.748\)

\(\hat{Y}_i\) 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 \(R^2\) value of 0.748. It is revealed from the constant that the average Per Capita NDDP (the benchmark-backward districts) was Rs.17389.50 and it is accepted at one percent level. The sign of the dummy (forward districts) coefficient is positive and the value is Rs. 5141.66 and it is accepted at one percent level. This means, on an average the Per Capita NDDP for forward districts was higher by Rs. 5141.66 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 districts was significantly less compared to forward districts.

**Per Capita Net District Domestic Product 2006:**

To estimate the difference in the per capita NDDP among the districts; the study used dummy variable model. Where the Per Capita NDDP is 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.

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

\[ \text{Where,} \]

\[ Y_i = \text{Per Capita NDDP} \]
\[ D_{1i} = 1 \text{ if forward district} \]
\[ = 0 \text{ otherwise (if not forward district, means backward district)} \]
\[ \hat{Y}_i = 18605.87 + 5908.62 D_{1i} \]
\[ t: (19.63) (4.081) \]
\[ \text{Sig: (0.000) (0.002)} \]
\[ R^2: 0.762 \]

\( \hat{Y}_i \) 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 \( R^2 \) value of 0.762. It is revealed from the constant that the average Per Capita NDDP (the benchmark-backward districts) was Rs.18605.87 and it is accepted at one percent level. The sign of the dummy (forward districts) coefficient is positive and the value is Rs. 5908.62 and it is accepted at one percent level. This means, on an average the Per Capita NDDP for forward districts was higher by Rs. 5908.62 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 districts was significantly less compared to forward 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.

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

\[ \text{Where,} \]
\( Y_i = \text{Per Capita NDDP} \)

\( D_{1i} = 1 \) if forward district

\( = 0 \) otherwise (if not forward district, means backward district)

\( \hat{Y}_i = 19716.75 + 6665.25 \ D_{1i} \)

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

\( \text{Sig:} \quad (0.000) \quad (0.005) \)

\( R^2: 0.704 \)

\( \hat{Y}_i \) 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 \( R^2 \) 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 districts was significantly less compared to forward districts.

\textbf{Section II:}

\textbf{Gender Disparity in Education:}

This section of the chapter analyzed gender disparity in education. Education is one of the important components of human development. Hence, the following section has analyzed the gender disparities in education. Number of schools for male and female children, number of boys and girls enrolled, numbers of male and female teachers, literacy rate (male and female) are considered for the analysis. The data are collected from Digest of Statistics, published annually by the Directorate of Economics and Statistics, Government of Jammu and Kashmir. The data are collected for the period of eighteen years from the year 1991 to 2008. Male and female literacy rate also analyzed for the year 1981, 2001 and 2011, using census of Jammu and Kashmir. Moreover, during 1981 and 2001, there were only fourteen districts and during 2011 there were twenty-two districts in the state of Jammu and Kashmir, for which analysis was done.
Number of Institutions at Primary Level:

To estimate the difference in the number of institutions meant for male and female children; the study used dummy variable model. Where the number of school was dependent variable and gender (male and female) was independent dummy variable. For the disparity analysis male was considered as benchmark. The model is as follows:

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  \hspace{1cm} (4.6)

Where,

\[ Y_t = \text{Number of institutions} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]

The same pattern has used to identify the disparity in male, female; enrolment and number of institutions at primary, middle and high school level and also for male female literacy rates.

\[ \hat{Y}_t = 7733 - 4883 D_{1t} \]
\[ t: (51.489) \hspace{1cm} (-22.989) \]
\[ \text{Sig: } (0.000) \hspace{1cm} (0.000) \]
\[ R^2: 0.969 \]

\( \hat{Y}_t \) 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 0.969. 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 institutions meant for male (the benchmark) were 7733 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 4883 and it is accepted at one percent level. This means, on an average the number of institutions meant for female were less by 4883 compared to benchmark. Therefore, there is significant difference between institutions meant for male and institutions meant for
female. At the same time, the number of institutions meant for female was significantly less compared to institutions meant for male at primary level.

**Total Enrolment at Primary Level:**

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

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

Where,

\[ Y_t = \text{Enrolment} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]

\[ \hat{Y}_t = 4.68 - 0.84D_{1t} \]

\[ t: \ (14.75) \ (-1.877) \]

\[ \text{Sig: } (0.000) \ (0.069) \]

\[ R^2: 0.306 \]

\[ \hat{Y}_t \] 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 \( R^2 \) value of 0.306. The constant presents the value of bench mark and the coefficient presents the difference between benchmark and dummy. The t-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average male enrolments (the benchmark) were 4.68 lakhs and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 0.84 lakh and it is accepted at one percent level. This means, on an average the total female enrolment were less by 0.843 lakh compared to benchmark. Therefore, there is significant difference between male and female enrolment. At the same time, female enrolment were significantly less compared to male enrolment at the primary level.
**Total Number of Teachers at Primary Level:**

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

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

Where,

\[ Y_t = \text{Teacher} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]
\[ \hat{Y}_t = 15737 - 6320D_{1t} \]

\[ t: \quad (19.851) \quad (-5.637) \]
\[ \text{Sig:} \quad (0.000) \quad (0.000) \]
\[ R^2: 0.695 \]

\( \hat{Y}_t \) 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 0.695. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The \( t \)-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average number of male teachers (the benchmark) was 15737 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 6320 and it is accepted at one percent level. This means, on an average number of female teachers available at the primary level were less by 6320 compared to benchmark. Therefore, there is significant difference between the number of male and female teachers available at the primary level. At the same time, the number female teachers available were significantly less compared to male teachers at the primary level.
Number of Institutions at Middle Level:

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

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  \hspace{1cm} (4.9)

Where,

\[ Y_t = \text{Number of institutions} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]

\[ \hat{Y}_t = 3011 - 2229 D_{1t} \]
\[ t: \ (21.838) \ (-11.433) \]
\[ \text{Sig: } (0.000) \ (0.000) \]
\[ R^2: 0.891 \]

\( \hat{Y}_t \) 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 0.891. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The \( t \)-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average institutions for male (the benchmark) were 3011 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 2229 and it is accepted at one percent level. This means, on an average number of institutions meant for female at middle level were less by 2229 compared to benchmark. Therefore, there is significant difference between the male and institutions meant for female. At the same time, the numbers of institutions meant for female were significantly less compared to institutions meant for male at middle level.
Total Enrolment at Middle Level:

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

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  \hspace{1cm} (4.10)

Where,

\[ Y_t = \text{Enrolment} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]
\[ \hat{Y}_t = 2.62 - 0.74D_{1t} \]
\[ t: \ (24.188) \quad (-4.879) \]
\[ \text{Sig: } (0.000) \quad (0.000) \]
\[ R^2: 0.642 \]

\( \hat{Y}_t \) 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 \( R^2 \) value of 0.642. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The t- values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average enrolments for male (the benchmark) were 2.62 lakhs and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 0.74 lakh and it is accepted at one percent level. This means, on an average female enrolment were less by 0.74 lakh compared to benchmark. Therefore, there is significant difference between male and female enrolment. At the same time, female enrolment were significantly less compared to male enrolment at middle level.

Total Number of Teachers at Middle level:

To estimate the difference in male and female teachers available; the study uses dummy variable model. Where the teacher was dependent variable and gender (male and
female) was independent dummy variable. For the disparity analysis male was considered as benchmark. The model is as follows.

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

Where,

- \( Y_t \) = Teacher
- \( D_{1t} = 1 \) if female
- \( = 0 \) otherwise (if not female)

\[ \hat{Y}_t = 15661 - 5725D_{1t} \]

\( t: \) (23.755) \((-6.140)\)

\( \text{Sig:} \) (0.000) \((0.000)\)

\( R^2: 0.725 \)

\( \hat{Y}_t \) 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 0.725. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The t-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average numbers of male teacher (the benchmark) were 15661 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 5725 and it is accepted at one percent level. This means, on an average number of female teachers available at the middle level were less by 5725 compared to benchmark. Therefore, there is significant difference between the number of male and female teachers. At the same time, number of available female teachers was significantly less compared to male teachers at middle level.

**Number of Institutions at High School:**

To estimate the difference in the number of institutions meant for male and female children; the study uses dummy variable model. Where the number of school was dependent variable and gender (male and female) was independent dummy variable. For the disparity analysis male was considered as benchmark. The model is as follows
To identify the presence of gender the following model was used.

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

Where,

\[ Y_t \] = Number of institutions

\[ D_{1t} = 1 \text{ if female} \]

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

\[ \hat{Y}_t = 1231 - 994 D_{1t} \]

\[ \text{t: } (36.849) \quad (-21.046) \]

\[ \text{Sig: } (0.000) \quad (0.000) \]

\[ R^2: 0.964 \text{ and adjusted } R^2: 0.929. \]

\[ \hat{Y}_t \] 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 0.964 and adjusted \( R^2 \) value of 0.929. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The \( t \)-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average institutions for male (the benchmark) were 1231 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 944 and it is accepted at one percent level. This means, on an average number of institutions meant for female were less by 944 compare to benchmark. Therefore, there is significant difference between number of institutions meant for male and number of institutions meant for female. At the same time, numbers of institutions meant for female were significantly less compared to institutions meant for male at high school.

**Total Enrolment at High School:**

To estimate the difference in the enrolment of male and female children; the study uses dummy variable model. Where the enrolment was dependent variable and gender (male and female) was independent dummy variable. For the disparity analysis male was considered as benchmark. The model is as follows
To identify the presence of gender bias the following model is used.

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

Where,

\[ Y_t = \text{Enrolment} \]
\[ D_{1t} = 1 \text{ if female} \]
\[ = 0 \text{ otherwise (if not female)} \]

\[ \hat{Y}_t = 2.16 - 0.70D_{1t} \]
\[ t: \ (24.753) \ (-5.707) \]
\[ \text{Sig}: \ (0.000) \ (0.000) \]
\[ R^2: 0.699 \]

\[ \hat{Y}_t \] 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 \( R^2 \) value of 0.699. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The t-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average male enrolment (the benchmark) was 2.16 lakhs and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 0.70 lakh and it is accepted at one percent level. This means, on an average female enrolment was less by 0.70 lakh compared to benchmark. Therefore, there is significant difference between male and female enrolments. At the same time, female enrolment was significantly less compared to male enrolment at high school level.

**Total Number of Teachers at High School:**

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

\[ Y_t = \alpha + \beta_1 D_{1t} + U_t \]  

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

\[ Y_t = \text{Teacher} \]

\[ D_{1t} = 1 \text{ if female} \]

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

\[ \hat{Y}_t = 17406 - 8952D_{1t} \]

\[ t: \ (27.164) \ (-9.879) \]

\[ \text{Sig: (0.000)} \ (0.000) \]

\[ R^2: 0.861 \]

\[ \hat{Y}_t \] 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 0.861. The constant presents the value of benchmark and the coefficient presents the difference between benchmark and dummy. The t-values and significant levels will help in order to accept or reject the constant and coefficient. It is revealed from the constant that the average numbers of male teachers (the benchmark) were 17406 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 8952 and it is accepted at one percent level. This means, on an average number of female teachers at the high school level were less by 8952 compared to benchmark. Therefore, there is significant difference between the number of male and female teachers. At the same time, number of available female teachers was significantly less compared to male teachers at high school level.

**Literacy 1981:**

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 was considered as benchmark. The model is as follows

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

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

\[ \text{Where,} \]

\[ Y_i = \text{Literacy rate} \]

\[ D_{1i} = 1 \text{ if female} \]
The same pattern has been used to identify the disparity in male and female literacy rate for the years 2001 and 2011.

\[ \hat{Y}_t = 79.79 - 19.94 D_{1i} \]

\( t: (28.691) (-5.888) \)

\( \text{Sig: (0.000) (0.000)} \)

\( R^2: 0.677 \)

\( \hat{Y}_t \) is an estimated model, presenting 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 a high \( R^2 \) value of 0.677. 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 for male (the benchmark) was 79.79 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 19.94 and it is accepted at one percent level. This means, on an average female literacy rate was less by 19.94 compared to benchmark. Therefore, there was a significant difference between male and female literacy rates. At the same time, female literacy rate was significantly less compared to male literacy rate.

**Literacy 2001:**

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

\[ Y_i = \alpha + \beta_1 D_{1i} + U_i \] \hspace{1cm} (4.16)

Where,

\( Y_i = \) Literacy rate

\( D_{1i} = 1 \) if female

\( = 0 \) otherwise (if not female)
\[ \hat{Y}_i = 79.79 - 14.59 D_{1i} \]

\[ t: \quad (33.298) \quad (-4.307) \]

\[ \text{Sig:} \quad (0.000) \quad (0.000) \]

\[ R^2: 0.645 \]

\( \hat{Y}_i \) 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 0.645. 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 for male (the benchmark) was 79.79 and it is accepted at one percent level. The sign of the dummy (female) coefficient is negative and the value is 14.59 and it is accepted at one percent level. This means, on an average female literacy rate was lower by 14.59 compared to benchmark. Therefore, there is significant difference between male and female literacy rates. At the same time, female literacy rate was significantly less compared to male literacy rate.

**Literacy 2011:**

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

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

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

Where,

\[ Y_i = \text{Literacy rate} \]

\[ D_{1i} = 1 \text{ if female} \]

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

\[ \hat{Y}_i = 77.37 - 22.12 D_{1i} \]

\[ t: \quad (44.348) \quad (-8.968) \]

\[ \text{Sig:} \quad (0.000) \quad (0.000) \]

\[ R^2: 0.811 \]
\( \hat{Y}_i \) 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 for 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 compare to benchmark. Therefore, there is significant difference between male and female literacy rates. At the same time, female literacy was significantly less compare to male literacy rate.

**Section III:**  
**Disparity in Health:**

This section presents and analysis the disparities in health sector of Jammu and Kashmir. Income, education and health are three key components of human development. Health is the most important social service sector having direct correlation with the welfare of the human being. This sector assumes focus for reaping the demographic dividend having healthy productive workforce and general welfare. In this section different variable of health; like sex ratio, early childhood mortality rates, early childhood mortality rates by background characteristics, health problems, morbidity rates, morbidity rates by districts are used.

**Methodology:**

For the present analysis the descriptive statistical tools like minima, maxima, and average are used and also t-test was conducted in order to identify the difference between male and female population. The sex ratio has taken for the districts of Jammu and Kashmir. The data are collected from census of Jammu and Kashmir published by the Census Department, Government of Jammu and Kashmir. The data are collected for the years 1981, 2001 and 2011. Moreover, during 1981 and 2001, there were only fourteen districts and during 2011 there were twenty-two districts in the state of Jammu and Kashmir, for which analysis was done.

---

The following table presents sex ratio for the districts of Jammu and Kashmir during the year 1981.

### Table 4.1

**Sex Ratio during 1981**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Ratio</td>
<td>14</td>
<td>853</td>
<td>918</td>
<td>889</td>
<td>20.45</td>
</tr>
</tbody>
</table>

Test Value = 1000

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Ratio</td>
<td>-20.326***</td>
<td>13</td>
<td>0.000</td>
<td>-111</td>
</tr>
</tbody>
</table>


It is found from the above table that during the year 1981, the minimum sex ratio was 853, the maximum sex ratio was 918 and the average sex ratio in Jammu and Kashmir was 889. It is found from the t-test that the difference with test value (1000) and average sex ratio is 111 and this difference is statistically significant at one percent level. Therefore, the female population during 1981 was significantly less compared to male population.

The following table presents sex ratio of the districts of Jammu and Kashmir during the year 2001.

### Table 4.2

**Sex Ratio during 2001**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Ratio</td>
<td>14</td>
<td>805</td>
<td>938</td>
<td>897</td>
<td>33.46</td>
</tr>
</tbody>
</table>

Test Value = 1000

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Ratio</td>
<td>-11.467***</td>
<td>13</td>
<td>0.000</td>
<td>-103</td>
</tr>
</tbody>
</table>


It is found from the above table that during the year 2001, the minimum sex ratio was 805, the maximum sex ratio was 938 and the average sex ratio in Jammu and Kashmir was 897. It is found from the t-test that the difference with test value (1000) and average sex ratio is 103 and this difference is statistically significant at one percent level. Therefore, the female population during 2001 was significantly less compared to male population.

The following table presents sex ratio of the districts of Jammu and Kashmir during the year 2011.

<table>
<thead>
<tr>
<th>Table 4.3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex Ratio During 2011</strong></td>
</tr>
<tr>
<td>Sex Ratio</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>22</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>-7.756***</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.

The following table presents difference in the early childhood mortality rates in urban and rural areas using various variables like neonatal mortality, post neonatal mortality, infant mortality, and child mortality and under-five mortality at different years of preceding the survey.
Table 4.4

Early Childhood Mortality Rates

Neonatal, post neonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey and for 0-4 years before NFHS-2, by residence, Jammu and Kashmir, 2005-06

<table>
<thead>
<tr>
<th>Years preceding the survey</th>
<th>Neonatal mortality (NN)</th>
<th>Post neonatal mortality (PNN)</th>
<th>Infant mortality (q₀)</th>
<th>Child mortality (q₁)</th>
<th>Under-five mortality (q₀)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4</td>
<td>(31.9)</td>
<td>(50.7)</td>
<td>(6.9)</td>
<td>(38.9)</td>
<td>(12.3)</td>
</tr>
<tr>
<td>5-9</td>
<td>(39.6)</td>
<td>(6.9)</td>
<td>(46.5)</td>
<td>(8.9)</td>
<td>(55.1)</td>
</tr>
<tr>
<td>10-14</td>
<td>(29.6)</td>
<td>(14.1)</td>
<td>(43.6)</td>
<td>(14.3)</td>
<td>(57.3)</td>
</tr>
<tr>
<td>NFHS-2 (0-4)</td>
<td>(41.6)</td>
<td>(15.9)</td>
<td>(57.6)</td>
<td>(12.3)</td>
<td>(69.2)</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4</td>
<td>29.3</td>
<td>16.9</td>
<td>46.2</td>
<td>5.2</td>
<td>51.2</td>
</tr>
<tr>
<td>5-9</td>
<td>32.0</td>
<td>14.1</td>
<td>46.1</td>
<td>11.0</td>
<td>56.6</td>
</tr>
<tr>
<td>10-14</td>
<td>42.8</td>
<td>18.0</td>
<td>60.9</td>
<td>21.9</td>
<td>81.5</td>
</tr>
<tr>
<td>NFHS-2 (0-4)</td>
<td>40.0</td>
<td>26.5</td>
<td>66.5</td>
<td>16.9</td>
<td>82.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-4</td>
<td>29.8</td>
<td>14.9</td>
<td>44.7</td>
<td>6.8</td>
<td>51.2</td>
</tr>
<tr>
<td>5-9</td>
<td>33.8</td>
<td>12.4</td>
<td>46.2</td>
<td>10.6</td>
<td>56.3</td>
</tr>
<tr>
<td>10-14</td>
<td>39.7</td>
<td>17.1</td>
<td>56.7</td>
<td>20.0</td>
<td>75.6</td>
</tr>
<tr>
<td>NFHS-2 (0-4)</td>
<td>40.3</td>
<td>24.7</td>
<td>65.0</td>
<td>16.1</td>
<td>80.1</td>
</tr>
</tbody>
</table>

( ) Based on 250-499 un-weighted cases.

1 Computed as the difference between the infant and neonatal mortality rates.

Source: NFHS-3, 2005-06

From 0-4 years of preceding the survey, the above table shows that urban neonatal mortality was 31.9 and rural neonatal mortality was 29.3. From 5-9 years of preceding the survey, urban neonatal mortality was 39.6 and rural neonatal mortality was 32.0. From 10-14 years of preceding the survey, the urban neonatal mortality was 29.6 and rural neonatal mortality was 42.8.
From 0-4 years of preceding the survey, the above table shows that urban post neonatal mortality was 50.7 and rural post neonatal mortality was 16.9. From 5-9 years of preceding the survey, urban post neonatal mortality was 6.9 and rural neonatal mortality was 14.1. From 10-14 years of preceding the survey, the urban post neonatal mortality was 14.1 and rural post neonatal mortality was 18.0.

From 0-4 years of preceding the survey, the above table shows that urban infant mortality was 6.9 and rural infant mortality was 46.2. From 5-9 years of preceding the survey, urban infant mortality was 46.5 and rural infant mortality was 46.1. From 10-14 years of preceding the survey, the urban infant mortality was 43.6 and rural infant mortality was 60.9.

From 0-4 years of preceding the survey, the above table shows that urban child mortality was 38.9 and rural child mortality was 5.2. From 5-9 years of preceding the survey, urban child mortality was 8.9 and rural child mortality was 11.0. From 10-14 years of preceding the survey, the urban child mortality was 14.3 and rural child mortality was 21.9.

From 0-4 years of preceding the survey, the above table shows that urban under-five mortality was 12.3 and rural child mortality was 51.2. From 5-9 years of preceding the survey, urban child mortality was 55.1 and rural child mortality was 56.6. From 10-14 years of preceding the survey, the urban child mortality was 57.3 and rural child mortality was 81.5.

Therefore, there are differences in the early childhood mortality rates in urban and rural areas in Jammu and Kashmir.

The following table presents difference in the early childhood mortality rates by background characteristics like residence, education, religion, caste/tribe, wealth index, using various variables like neonatal mortality, post neonatal mortality, infant mortality, child mortality and under five mortality at ten year period of preceding the survey.
Table 4.5

Early childhood mortality rates by background characteristics

Neonatal, post neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Jammu and Kashmir, 2005-06

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Neonatal mortality (NN)</th>
<th>Post neonatal mortality (PNN)</th>
<th>Infant mortality (q₀)</th>
<th>Child mortality (q₁)</th>
<th>Under-five mortality (q₀)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>36.3</td>
<td>6.9</td>
<td>43.2</td>
<td>10.5</td>
<td>53.3</td>
</tr>
<tr>
<td>Rural</td>
<td>30.7</td>
<td>15.5</td>
<td>46.1</td>
<td>8.1</td>
<td>53.9</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>31.7</td>
<td>16.2</td>
<td>47.9</td>
<td>11.6</td>
<td>59.0</td>
</tr>
<tr>
<td>&lt;10 years complete</td>
<td>43.2</td>
<td>11.1</td>
<td>54.4</td>
<td>2.8</td>
<td>57.0</td>
</tr>
<tr>
<td>10 or more years complete</td>
<td>(13.8)</td>
<td>(7.5)</td>
<td>(21.3)</td>
<td>(5.8)</td>
<td>(27.0)</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>30.8</td>
<td>14.2</td>
<td>45.0</td>
<td>10.6</td>
<td>55.2</td>
</tr>
<tr>
<td>Muslim</td>
<td>32.5</td>
<td>13.7</td>
<td>46.2</td>
<td>8.1</td>
<td>53.9</td>
</tr>
<tr>
<td>Sikh</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Caste/tribe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled caste</td>
<td>(45.7)</td>
<td>(16.9)</td>
<td>(62.6)</td>
<td>(10.2)</td>
<td>(72.2)</td>
</tr>
<tr>
<td>Scheduled tribe</td>
<td>(11.2)</td>
<td>(23.1)</td>
<td>(34.3)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Other backward class</td>
<td>(26.0)</td>
<td>(19.3)</td>
<td>(45.3)</td>
<td>(10.2)</td>
<td>(55.1)</td>
</tr>
<tr>
<td>Other</td>
<td>34.0</td>
<td>10.7</td>
<td>44.7</td>
<td>9.0</td>
<td>53.3</td>
</tr>
<tr>
<td><strong>Wealth index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Second</td>
<td>(26.0)</td>
<td>(26.1)</td>
<td>(52.1)</td>
<td>(4.9)</td>
<td>(56.7)</td>
</tr>
<tr>
<td>Middle</td>
<td>45.2</td>
<td>13.4</td>
<td>58.6</td>
<td>9.8</td>
<td>67.9</td>
</tr>
<tr>
<td>Fourth</td>
<td>26.5</td>
<td>11.9</td>
<td>38.4</td>
<td>11.0</td>
<td>49.0</td>
</tr>
<tr>
<td>Highest</td>
<td>21.3</td>
<td>3.9</td>
<td>25.2</td>
<td>4.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Child's sex</td>
<td>Male</td>
<td>35.2</td>
<td>12.9</td>
<td>48.1</td>
<td>6.2</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Female</td>
<td>28.2</td>
<td>14.4</td>
<td>42.7</td>
<td>11.6</td>
<td>53.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother's age at birth</th>
<th>&lt;20</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(43.5)</td>
<td>(29.1)</td>
<td>(32.3)</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>(22.7)</td>
<td>(11.5)</td>
<td>(14.1)</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>(66.2)</td>
<td>(40.5)</td>
<td>(46.5)</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>(16.0)</td>
<td>(6.1)</td>
<td>(13.1)</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>(81.1)</td>
<td>(46.4)</td>
<td>(58.9)</td>
<td>*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Birth order</th>
<th>1</th>
<th>2-3</th>
<th>4+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34.7</td>
<td>10.5</td>
<td>45.2</td>
</tr>
<tr>
<td></td>
<td>26.1</td>
<td>15.6</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>38.3</td>
<td>13.6</td>
<td>51.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Previous birth interval</th>
<th>&lt;2 years</th>
<th>2-3 years</th>
<th>4 years or more</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46.9</td>
<td>29.8</td>
<td>(17.4)</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>24.2</td>
<td>14.5</td>
<td>(5.8)</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>71.1</td>
<td>44.3</td>
<td>(23.2)</td>
<td>45.5</td>
</tr>
<tr>
<td></td>
<td>11.6</td>
<td>6.4</td>
<td>(9.8)</td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td>81.9</td>
<td>50.4</td>
<td>(32.7)</td>
<td>53.8</td>
</tr>
</tbody>
</table>

Note: Total includes births to women belonging to other religions, which are not shown separately.

( ) Based on 250-499 unweighted cases.
* Based on fewer than 250 unweighted cases.
1 Computed as the difference between the infant and neonatal mortality rates.
2 Excludes first-order births.

Source: NFHS-3, 2005-06

With residence as background characteristic, the above table shows that urban neonatal mortality was 36.3 and rural neonatal mortality was 30.7. Urban post neonatal mortality was 6.9 and rural post neonatal mortality was 15.5. Urban infant mortality was 43.2 and rural infant mortality was 46.1. Urban child mortality was 10.5 and rural child mortality was 8.1. Urban under-five mortality was 53.3 and rural under-five mortality was 53.9.

Education as the background characteristic, the above table shows that with no education neonatal mortality was 31.7. With education less than ten years neonatal
mortality was 43.2. With ten or more than ten years of education complete neonatal mortality was 13.8.

Education as the background characteristic, the above table shows that with no education post neonatal mortality was 16.2. With education less than ten years post neonatal mortality was 11.1. With ten or more years of education complete post neonatal mortality was 7.5.

Education as the background characteristic, the above table shows that with no education infant mortality was 47.9. With education less than ten years infant mortality was 54.4. With ten or more years of education complete infant mortality was 21.3.

Education as the background characteristic, the above table shows that with no education child mortality were 11.6. With education less than ten years child mortality was 2.8. With ten or more years of education complete child mortality was 5.8.

Education as the background characteristic, the above table shows that with no education under-five mortality were 59.0. With education less than ten years under-five mortality was 57.0. With more than ten years or more years of education complete under-five mortality was 27.0.

Religion as background characteristic, the above table shows that for Hindus neonatal mortality was 30.8 for Muslims neonatal mortality was 32.5 and for Sikhs results are not available for post neonatal mortality.

Religion as background characteristic, the above table shows that for Hindus post neonatal mortality was 14.2 for Muslims post neonatal mortality was 13.7 and for Sikhs results are not available for post neonatal mortality.

Religion as background characteristic, the above table shows that for Hindus infant mortality was 45.0 for Muslims infant mortality was 46.2 and for Sikhs results are not available for infant mortality.

Religion as background characteristic, the above table shows that for Hindus child mortality was 10.6 for Muslims child mortality was 8.1 and for Sikhs results are not available for child mortality.
Religion as background characteristic, the above table shows that for Hindus under-five mortality was 55.2 for Muslims under-five mortality was 53.9 and for Sikhs results are not available for under-five mortality.

Caste/tribe as background characteristic, the above table shows that for schedule caste neonatal mortality was 45.7 for schedule tribe neonatal mortality was 11.2 for other backward class neonatal mortality was 26.6 and for other neonatal mortality was 34.0.

Caste/tribe as background characteristic, the above table shows that for schedule caste post neonatal mortality was 16.9 for schedule tribe post neonatal mortality was 23.1 for other backward class post neonatal mortality was 19.3 and for other post neonatal mortality was 10.7.

Caste/tribe as background characteristic, the above table shows that for schedule caste infant mortality was 62.6 for schedule tribe infant mortality was 34.3 for other backward class infant mortality was 45.3 and for other infant mortality was 44.7.

Caste/tribe as background characteristic, the above table shows that for schedule caste child mortality was 10.2 for schedule tribe child mortality was not available as there were less than 250 cases for it for other backward class child mortality was 10.2 and for other child mortality was 9.0.

Caste/tribe as background characteristic, the above table shows that for schedule caste under-five mortality was 72.2 for schedule tribe under-five mortality was not available as there were less than 250 cases for it for other backward class under-five mortality was 55.1 and for other under-five mortality was 53.3.

Wealth index as background characteristic, the above table shows that neonatal mortality for lowest wealth group was not available. For the second wealth group neonatal mortality was 26.0, for middle wealth group neonatal mortality was 45.2, for fourth wealth group neonatal mortality was 26.5, for highest wealth group neonatal mortality was 21.3.

Wealth index as background characteristic, the above table shows that post neonatal mortality for lowest wealth group was not available. For the second wealth group post neonatal mortality was 26.1, for middle wealth group post neonatal mortality was 13.4, for fourth wealth group post neonatal mortality was 11.9, for highest wealth group post neonatal mortality was 3.9.
Wealth index as background characteristic, the above table shows that infant mortality for lowest wealth group was not available. For the second wealth group infant mortality was 52.1, for middle wealth group infant mortality was 58.6, for fourth wealth group infant mortality was 38.4, for highest wealth group infant mortality was 25.2.

Wealth index as background characteristic, the above table shows that child mortality for lowest wealth group was not available. For the second wealth group child mortality was 4.9, for middle wealth group child mortality was 9.8, for fourth wealth group child mortality was 11.0, for highest wealth group child mortality was 4.0.

Wealth index as background characteristic, the above table shows that under-five mortality for lowest wealth group was not available. For the second wealth group under-five mortality was 56.7, for middle wealth group under-five mortality was 67.9, for fourth wealth group under-five mortality was 49.0, for highest wealth group under-five mortality was 29.0.

Child’s sex as background characteristic, the above table shows that neonatal mortality for male was 35.2 and for female neonatal mortality were 28.2.

Child’s sex as background characteristic, the above table shows that post neonatal mortality for male was 12.9 and for female post neonatal mortality was 14.4.

Child’s sex as background characteristic, the above table shows that infant mortality for male was 48.1 and for female infant mortality were 42.7.

Child’s sex as background characteristic, the above table shows that child mortality for male was 6.2 and for female child mortality was 11.6.

Child's sex as background characteristic, the above table shows that under-five mortality for male was 53.9 and for female under-five mortality were 53.7.

Mother’s age at birth as background characteristic, the above table shows that mother’s age less than 20 years at birth, neonatal mortality was 43.5. Mother’s age between 20-29 years at birth, neonatal mortality was 29.1. Mother’s age between 30-39 years at birth, neonatal mortality was 32.3. Mother’s age between 40-49 years at birth, neonatal mortality results were not available.

Mother’s age at birth as background characteristic, the above table shows that mother’s age less than 20 years at birth, post neonatal mortality was 22.7. Mother’s age
between 20-29 years at birth, post neonatal mortality was 11.5. Mother’s age between 30-39 years at birth, post neonatal mortality was 14.1. Mother’s age between 40-49 years at birth, post neonatal mortality results were not available.

Mother’s age at birth as background characteristic, the above table shows that mother’s age less than 20 years at birth, infant mortality was 66.2. Mother’s age between 20-29 years at birth, infant mortality was 40.5. Mother’s age between 30-39 years at birth, infant mortality was 46.5. Mother’s age between 40-49 years at birth, infant mortality results were not available.

Mother’s age at birth as background characteristic, the above table shows that mother’s age less than 20 years at birth, child mortality was 16.0. Mother’s age between 20-29 years at birth, child mortality was 6.1. Mother’s age between 30-39 years at birth, child mortality was 13.1. Mother’s age between 40-49 years at birth, child mortality results were not available.

Mother’s age at birth as background characteristic, the above table shows that mother’s age less than 20 years at birth, under-five mortality was 81.1. Mother’s age between 20-29 years at birth, under-five mortality was 46.4. Mother’s age between 30-39 years at birth, under-five mortality was 58.9. Mother’s age between 40-49 years at birth, under-five mortality results were not available.

The following table presents health problems of women and men. The number of women and men per 100,000 who have diabetes, asthma, goitre or other thyroid disorder by using background characteristics like age, residence, education and wealth index.
Table 4.6

Health problems

Number of women and men age 15-49 per 100,000 who reported that they have diabetes, asthma, or goitre or any other thyroid disorders, by background characteristics, Jammu and Kashmir, 2005-06

<table>
<thead>
<tr>
<th>Background characteristic</th>
<th>Number of women per 100,000 who have:</th>
<th>Number of men per 100,000 who have:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diabetes</td>
<td>Asthma</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>159</td>
<td>317</td>
</tr>
<tr>
<td>20-34</td>
<td>237</td>
<td>632</td>
</tr>
<tr>
<td>35-49</td>
<td>1,313</td>
<td>1,739</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1,295</td>
<td>648</td>
</tr>
<tr>
<td>Rural</td>
<td>227</td>
<td>1,000</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>277</td>
<td>1,676</td>
</tr>
<tr>
<td>&lt;5 years complete</td>
<td>0</td>
<td>1,506</td>
</tr>
<tr>
<td>5-9 years complete</td>
<td>516</td>
<td>210</td>
</tr>
<tr>
<td>10 or more years complete</td>
<td>1,060</td>
<td>325</td>
</tr>
<tr>
<td>Wealth index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest</td>
<td>0</td>
<td>6,265</td>
</tr>
<tr>
<td>Second</td>
<td>331</td>
<td>1,656</td>
</tr>
<tr>
<td>Middle</td>
<td>110</td>
<td>880</td>
</tr>
<tr>
<td>Fourth</td>
<td>104</td>
<td>503</td>
</tr>
<tr>
<td>Highest</td>
<td>1,580</td>
<td>693</td>
</tr>
<tr>
<td>Total</td>
<td>540</td>
<td>897</td>
</tr>
</tbody>
</table>

Note: Total includes women with missing information on education, who are not shown separately.

( ) Based on 25-49 un-weighted cases.

Source: NFHS-3, 2005-06
Age as background characteristic, the above table shows that 15-19 years among women 159 were suffering from diabetes and no male was suffering from the same diseases. From 20-34 years among women 237 and 193 men were suffering from diabetes. From 35-49 years among women 1,313 and 676 men were suffering from diabetes.

Age as background characteristic, the above table shows that 15-19 years among women 317 and 828 men were suffering from asthma. From 20-34 years among women 632 and 426 men were suffering from asthma. From 35-49 years among women 1,739 and 1,488 men were suffering from asthma.

Age as background characteristic, the above table shows that 15-19 years among women 159 and no men were suffering from goitre or other thyroid disorder. From 20-34 years among women 54 and no were suffering from goitre or other thyroid disorder. From 35-49 years among women 599 and no men were suffering from goitre or other thyroid disorder.

Residence as background characteristic, the above table shows that 1,295 urban women and 935 urban men were suffering from diabetes. And 227 rural women and no men were suffering from diabetes.

Residence as background characteristic, the above table shows that 648 urban women and no urban men were suffering from asthma. And 1,000 rural women and 1,161 men were suffering from asthma.

Residence as background characteristic, the above table shows that 370 urban women and no urban men were suffering from goitre or other thyroid disorder. And 182 rural women and no men were suffering from goitre or other thyroid disorder.

Education as background characteristic, the above table in the category of those who have no education, 277 women and no men were suffering from diabetes. In the category of those who have less than 5 years of education, no women and 1,676 men were suffering from diabetes. In the category of those who have 5-9 years of education, 516 women and 217 men were suffering from diabetes. In the category of those who have more than ten years of education, 1,060 women and 255 men were suffering from diabetes.

With education as background characteristic, the above table in the category of those who have no education, 1,676 women and 1,335 men were suffering from asthma. In
the category of those who have less than 5 years of education, 1,506 women and 693 men were suffering from asthma. In the category of those who have 5-9 years of education, 210 women and 478 men were suffering from asthma. In the category of those who have more than ten years of education, 325 women and 561 men were suffering from asthma.

Education as background characteristic, the above table in the category of those who have no education, 157 women and no men were suffering from goitre or other thyroid disorder. In the category of those who have less than 5 years of education, no women and no men were suffering from goitre or other thyroid disorder. In the category of those who have 5-9 years of education, 306 women and no men were suffering from goitre or other thyroid disorder. In the category of those who have more than ten years of education, 325 women and no men were suffering from goitre or other thyroid disorder.

Wealth index as background characteristic, the above table shows that for lowest wealth group there no women and no men were suffering from diabetes. For the second wealth group 331 women and no men were suffering from diabetes. For middle wealth group 110 women and no men were suffering from diabetes. For fourth wealth group 104 women and 643 men were suffering from diabetes. And for highest wealth group 1,580 women and 344 men were suffering from diabetes.

Wealth index as background characteristic, the above table shows that for lowest wealth group there 6,265 women and 3,716 men were suffering from asthma. For the second wealth group 1,656 women and 797 men were suffering from asthma. For middle wealth group 880 women and 710 men were suffering from asthma. For fourth wealth group 503 women and 1,062 men were suffering from diabetes. And for highest wealth group 693 women and 379 men were suffering from asthma.

Wealth index as background characteristic, the above table shows that for lowest wealth group no women and no men were suffering from goitre or other thyroid disorder. For the second wealth group 331 women and no men were suffering from goitre or other thyroid disorder. For middle wealth group 220 women and no men were suffering from goitre or other thyroid disorder. For fourth wealth group no women and no men were suffering from diabetes. And for highest wealth group 500 women and no men were suffering from goitre or other thyroid disorder.
The following table presents morbidity rates of for rural and urban areas, prevalence rate per 100,000 populations. Different variables like; prevalence of blindness, tuberculosis, and malaria for male and female are used for analysis.

**Table 4.7
Morbidity Rates**

Prevalence of blindness, tuberculosis, and malaria, according to place of residence, Jammu & Kashmir, 2002-04

<table>
<thead>
<tr>
<th>Morbidity</th>
<th>Residence</th>
<th>Total</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence rate of blindness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial</td>
<td>854</td>
<td>983</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td>Complete</td>
<td>299</td>
<td>347</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>Night blindness</td>
<td>131</td>
<td>132</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial</td>
<td>738</td>
<td>880</td>
<td>280</td>
<td></td>
</tr>
<tr>
<td>Complete</td>
<td>191</td>
<td>203</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>Night blindness</td>
<td>173</td>
<td>123</td>
<td>334</td>
<td></td>
</tr>
<tr>
<td><strong>Persons</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial</td>
<td>799</td>
<td>934</td>
<td>347</td>
<td></td>
</tr>
<tr>
<td>Complete</td>
<td>248</td>
<td>277</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Night blindness</td>
<td>151</td>
<td>128</td>
<td>233</td>
<td></td>
</tr>
<tr>
<td>Prevalence rate of tuberculosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>253</td>
<td>284</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>214</td>
<td>247</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td><strong>Person</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>234</td>
<td>265</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Prevalence rate of malaria&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>111</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>123</td>
<td>134</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td><strong>Person</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td>122</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

Note: All the rates refer to de jure population. Prevalence rate per 100,000 population. Reference period: January 1st, 1999 to survey date for phase-1, and January 1st, 2001 to survey date for phase-2.

<sup>1</sup> Last two weeks prior to the survey


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The above table shows prevalence rate of blindness, according to the residence rural and urban male. For rural male partial blindness were 983 and for urban male partial blindness were 410. Complete blindness for rural male was 347 and for urban male complete blindness were 140. Night blindness for rural male was 132 and for urban male night blindness were 130.

The above table shows the prevalence rate of blindness according to the residence rural and urban female. For rural female partial blindness were 880 and for urban female partial blindness were 280. Complete blindness for rural female was 203 and for urban female complete blindness were 161. Night blindness for rural female was 123 and for urban female night blindness were 334.

The above table shows prevalence rate of blindness according to the residence rural and urban persons. For rural persons partial blindness was 934 and for urban persons partial blindness was 347. Complete blindness for rural persons was 277 and for urban persons complete blindness was 145. Night blindness for rural persons was 128 and for urban persons night blindness was 233.

The above table shows prevalence rate of tuberculosis according to the residence rural and urban male. For rural male prevalence rate of tuberculosis was 284 and for the urban male prevalence rate of tuberculosis was 150.

The above table shows the prevalence rate of tuberculosis according to the residence rural and urban female. For rural female prevalence rate of tuberculosis was 247 and for the urban female prevalence rate of tuberculosis was 118.

The above table shows the prevalence rate of tuberculosis according to the residence rural and urban person. For rural person prevalence rate of tuberculosis was 265 and for the urban person prevalence rate of tuberculosis was 135.

The above table shows prevalence rate of malaria according to the residence rural and urban male. For rural male prevalence rate of malaria was 111 and for the urban male prevalence rate of malaria was 40.

The above table shows prevalence rate of malaria according to the residence rural and urban female. For rural female prevalence rate of malaria was 134 and for the urban female prevalence rate of malaria was 87.
The above table shows the prevalence rate of malaria according to the residence rural and urban person. For rural person prevalence rate of malaria was 122 and for the urban person prevalence rate of malaria was 63.

The following table presents morbidity rates by districts, prevalence rate per 100,000 populations. By using different variables like; partial blindness, tuberculosis, and malaria for all the districts of Jammu and Kashmir.

**Table 4.8**  
**Morbidity Rates by Districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Partial blindness</th>
<th>Complete blindness</th>
<th>Tuberculosis</th>
<th>Malaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anantnag</td>
<td>678</td>
<td>73</td>
<td>82</td>
<td>198</td>
</tr>
<tr>
<td>Budgam</td>
<td>942</td>
<td>59</td>
<td>104</td>
<td>20</td>
</tr>
<tr>
<td>Baramula</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Doda</td>
<td>26</td>
<td>15</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Jammu</td>
<td>161</td>
<td>619</td>
<td>96</td>
<td>139</td>
</tr>
<tr>
<td>Kargil</td>
<td>337</td>
<td>246</td>
<td>273</td>
<td>209</td>
</tr>
<tr>
<td>Kathua</td>
<td>249</td>
<td>871</td>
<td>401</td>
<td>376</td>
</tr>
<tr>
<td>Kupwara</td>
<td>1,664</td>
<td>43</td>
<td>869</td>
<td>19</td>
</tr>
<tr>
<td>Leh (Ladakh)</td>
<td>217</td>
<td>214</td>
<td>60</td>
<td>136</td>
</tr>
<tr>
<td>Pulwama</td>
<td>1,773</td>
<td>34</td>
<td>845</td>
<td>11</td>
</tr>
<tr>
<td>Poonch</td>
<td>18</td>
<td>34</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Rajouri</td>
<td>373</td>
<td>80</td>
<td>25</td>
<td>160</td>
</tr>
<tr>
<td>Srinagar</td>
<td>2,275</td>
<td>269</td>
<td>213</td>
<td>130</td>
</tr>
<tr>
<td>Udhampur</td>
<td>390</td>
<td>190</td>
<td>129</td>
<td>25</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>799</td>
<td>248</td>
<td>234</td>
<td>108</td>
</tr>
</tbody>
</table>

Note: All the rates refer to de jure population.

1 Prevalence rate per 100,000 population

Reference period: - January 1st, 1999 to survey date for phase-1, and January 1st, 2001 to survey date for phase-2.

2 Last two weeks prior to the survey

The above table shows prevalence of partial blindness among all the districts of Jammu and Kashmir. The minimum partial blindness was zero for the district Baramula and the maximum partial blindness was 2,275 for the district Srinagar.

The above table shows prevalence of complete blindness among all the districts of Jammu and Kashmir. The minimum complete blindness was 11 for the district Baramula and the maximum complete blindness was 875 for the district Kathua.

The above table shows the prevalence of tuberculosis among all the districts of Jammu and Kashmir. The minimum tuberculosis was zero for the district Baramula and the maximum tuberculosis was 869 for the district Kupwara.

The above table shows prevalence of malaria among all the districts of Jammu and Kashmir. The minimum malaria was zero for the district Baramula and the maximum malaria was 376 for the district Kathua.

**Conclusion:**

It is quite evident from above observations that there are disparities among districts of Jammu and Kashmir in terms of income. Forward districts have performed better than backward districts in terms of per capita NNDP during the reference period. In other words forward districts had higher per capita NDDP compared to backward districts. There were gender disparities in education among districts of Jammu and Kashmir. There were more number of male institutions, more number of males enrolled and more number of male teachers available at primary, middle and high school level compared to females. At the same time, male literacy rate was higher than female literacy rate during the reference period. It was also quite evident that there are disparities in health sector of Jammu and Kashmir in terms of sex ratio, early childhood mortality by urban and rural areas, health problems by age, residence (urban and rural) and wealth index, morbidity rates by rural and urban areas and morbidity rates by districts.