



# Pro-Poor Growth and Education: The Indian Case

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# Introduction

Poverty reduction central concern of development (MDG1);

India:

Steady progress in poverty reduction since the 1970s

But no acceleration of poverty reduction despite much more rapid economic growth since late 1990s;

Dramatic regional inequality in poverty, growth, education, and human development;

Question: How are all these issues linked? All linked to debated about pro-poor growth;

This presentation:

Reviews debate on pro-poor growth;

Reviews determinants of Pro-Poor Growth in India;

Reviews pro-poor progress in education in India;

# Some Macro Facts

India's growth has accelerated markedly since mid-1990s (or even early 1980s?): From Hindu rate of growth to 6-10% per year;

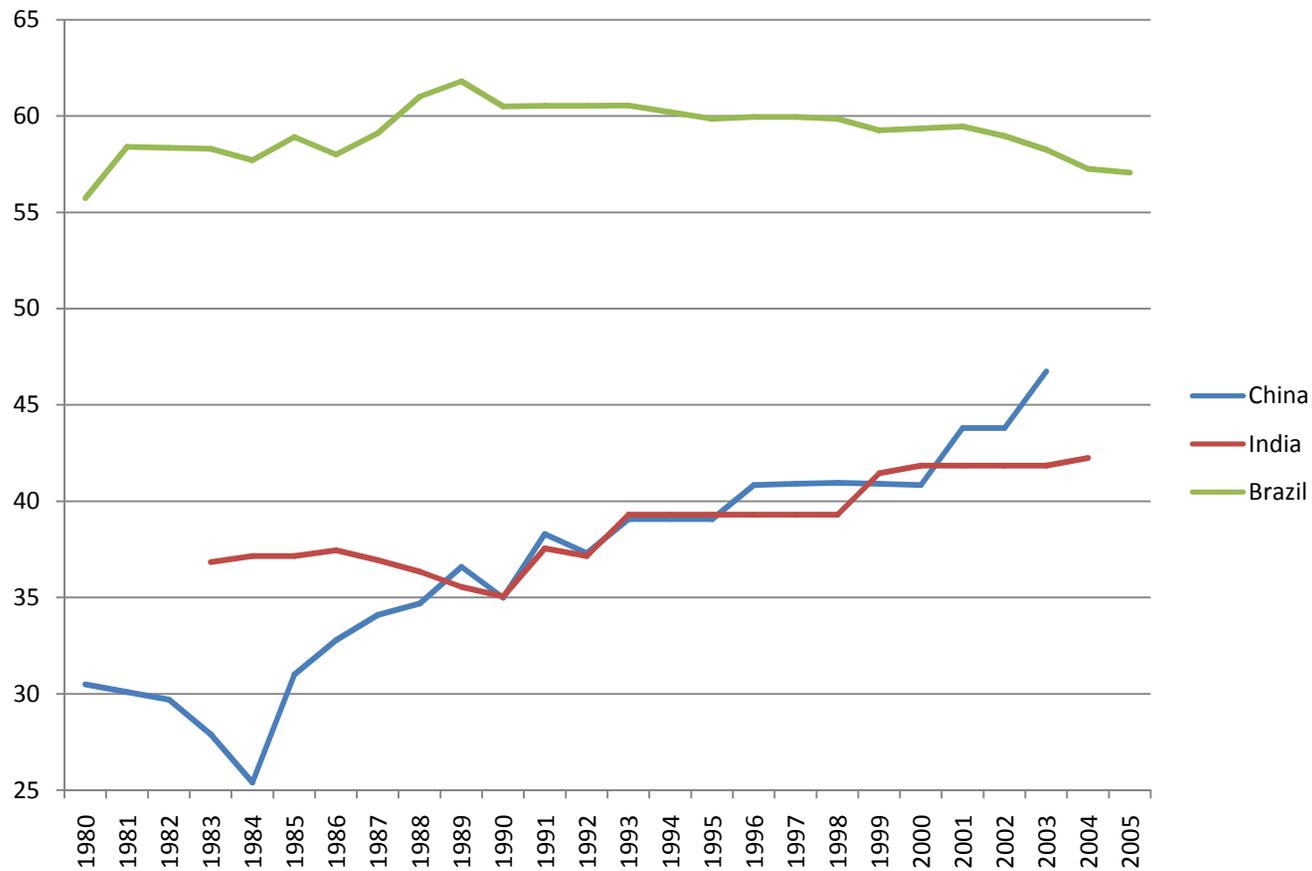
Poverty reduction has roughly continued its steady path (not faster than Brazil despite much slower growth there!);

Why? Inequality has increased and thus had two adverse effects:

- Increased poverty directly

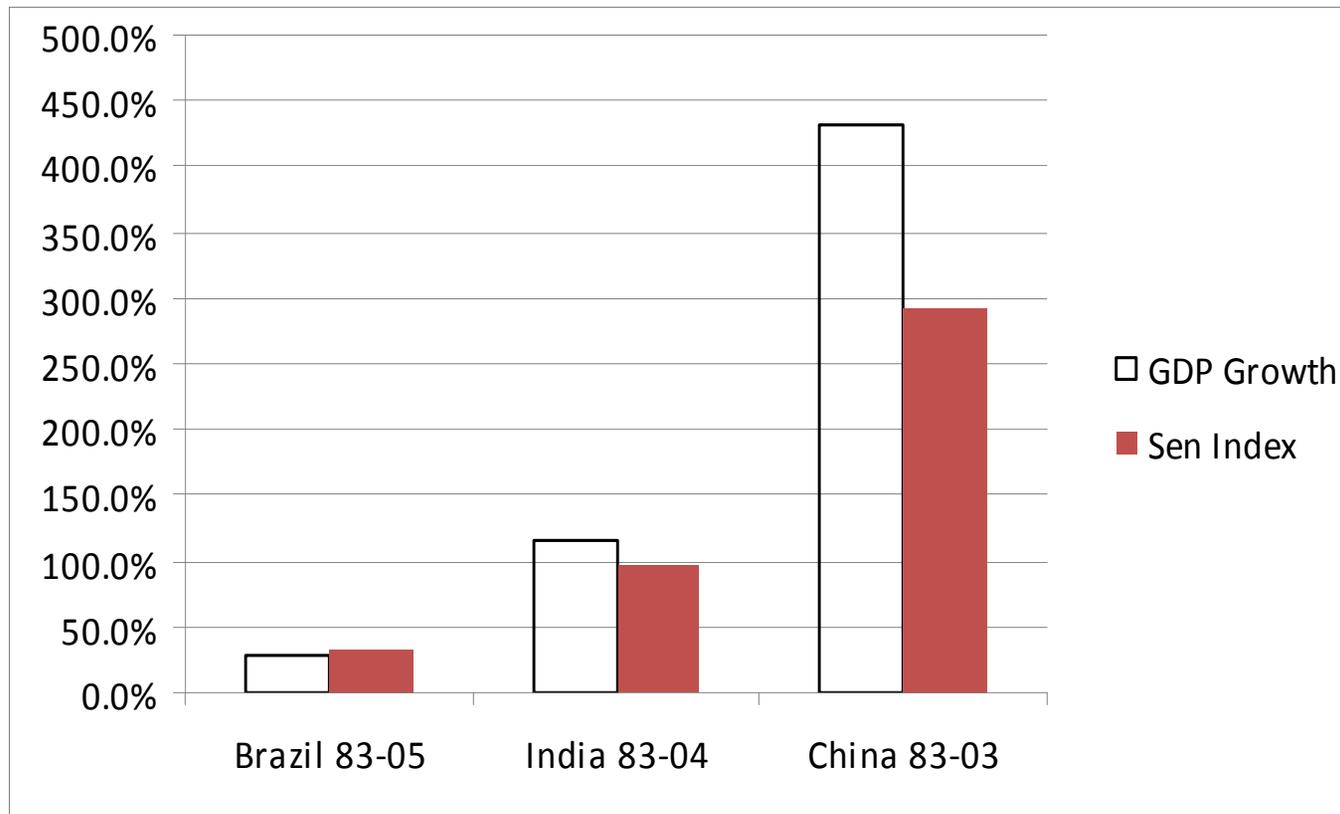
- Reduced poverty impact of growth

# Gini coefficients for China, India, Brazil

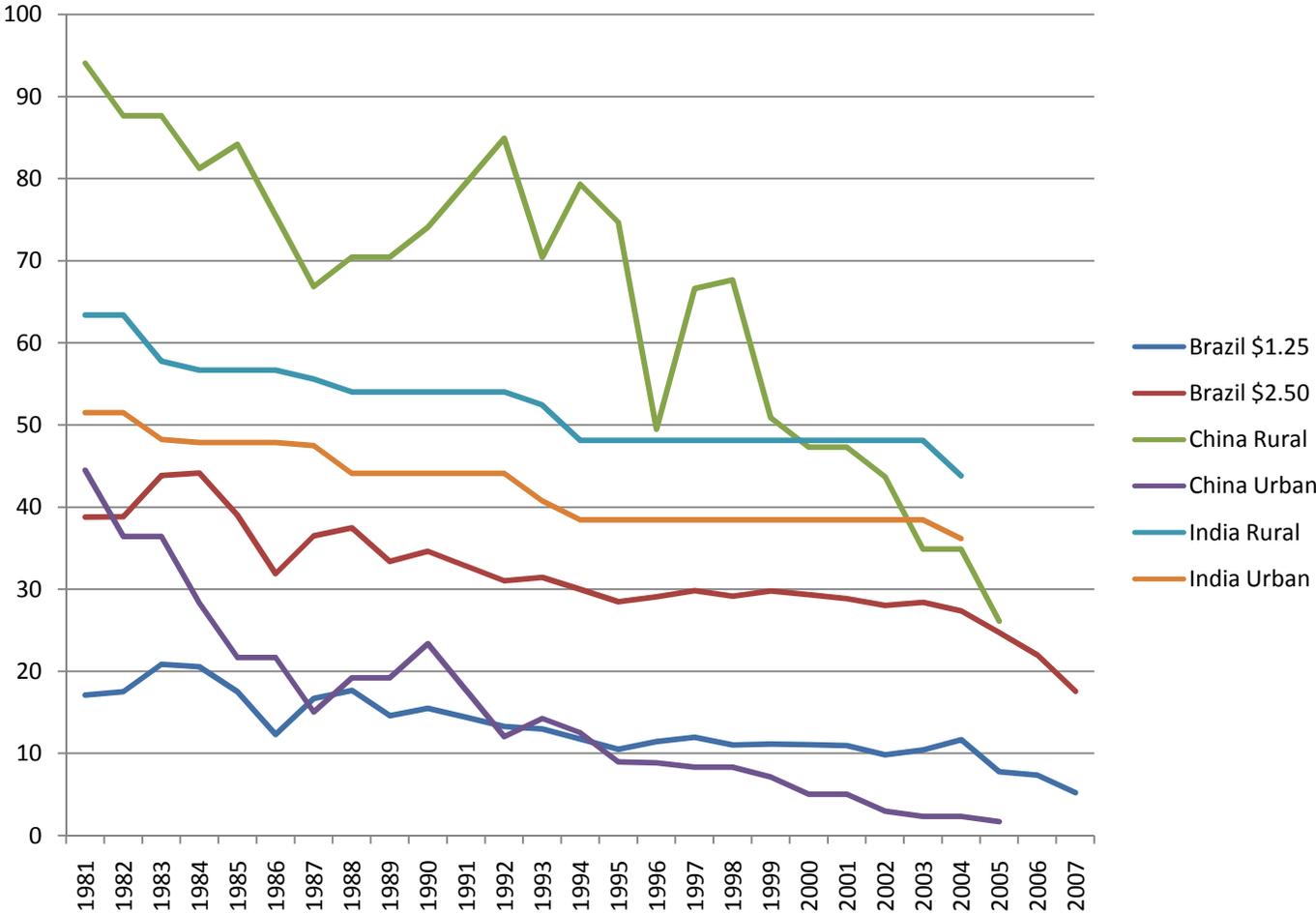


# The Welfare Consequences of Inequality Changes:

Sen Index:  $S = y (1-G)$



# The poverty consequences of inequality changes



# Determinants of Pro-Poor Growth

What is pro-poor growth?

Growth that leads to particularly high poverty reduction

Fastest when it is accompanied with declining inequality

Growth Incidence Curve a nice way to summarize information;

How to promote pro-poor growth?

Direct way:

Concentrated in sectors where they predominate;

Focused on regions where poor live;

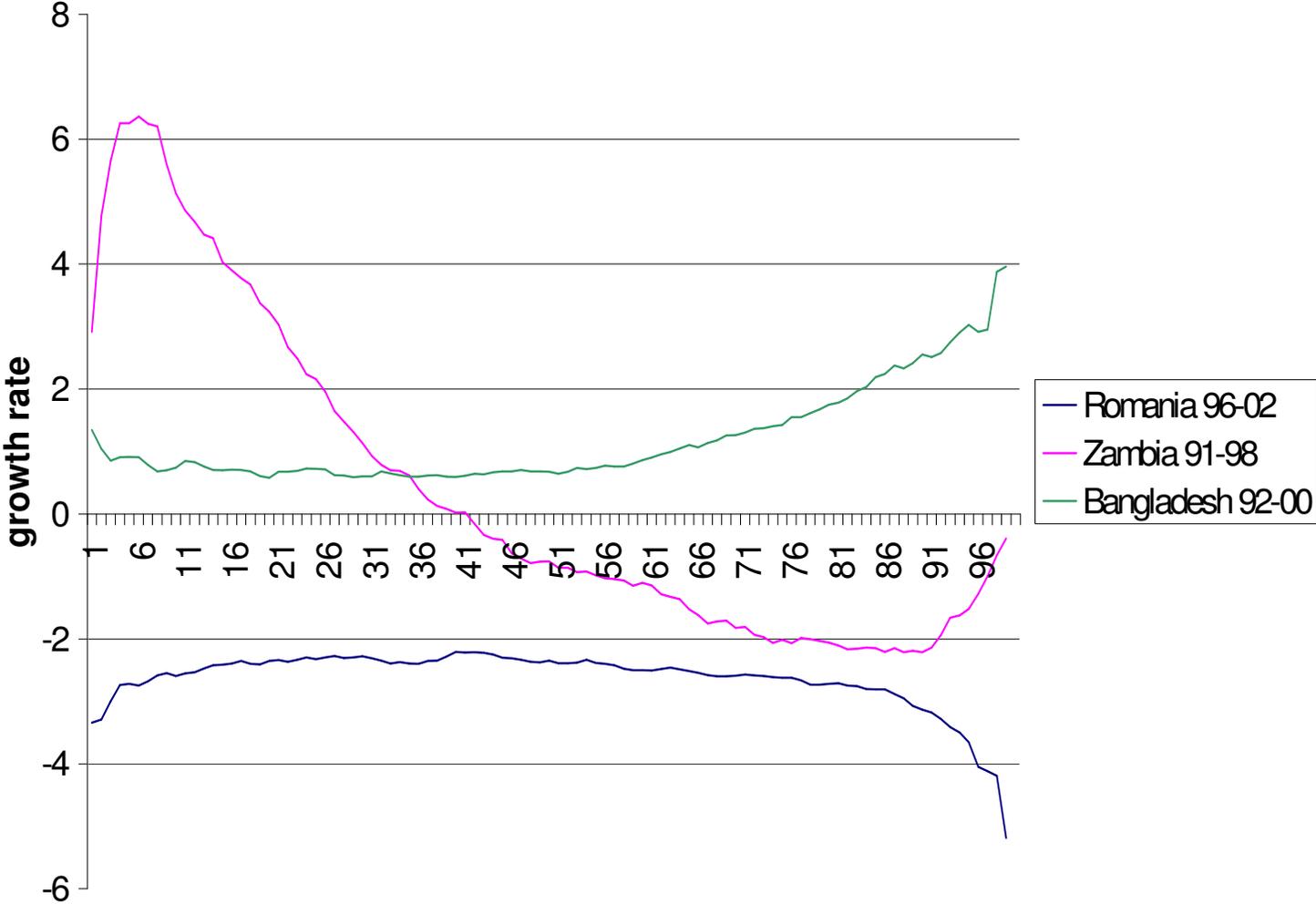
Use factors that they possess;

For India: Concentrate growth on remote agricultural areas in Central North (e.g. Orissa, Bihar, Rajasthan, MP)

Indirect Way: Through government transfers

E.g. National Public Work Schemes, Pub. Dist. System, etc.

Figure 3: Selected examples of growth incidence curves



# Findings for India

Work by Ravallion, Datt, Besley, Burgess, etc:

Growth took place in wrong regions;

Agricultural growth higher poverty elasticity than industrial growth;

Recent growth associated with rising rural-urban gap and focused on industrial, services growth;

Impact of farm growth and investments on poverty everywhere the same in India

Impact of non-farm growth depends strongly on:

- Initial female literacy

- Low rural-urban disparities

- Low share of landless households

Gender gap in literacy and employment reduces growth and poverty impact of growth;

Strong correlation low overall educational attainment and gender gap in attainments.

Strong dependence of recent growth on availability of highly educated

Key role of education (esp. Female education) to promote pro-poor growth in India!

## **Pro Poor Growth in Education?**

Research project for UNESCO's Global Monitoring Report 2008;

Examine educational progress along the income distribution;

Outcome-based incidence analysis;

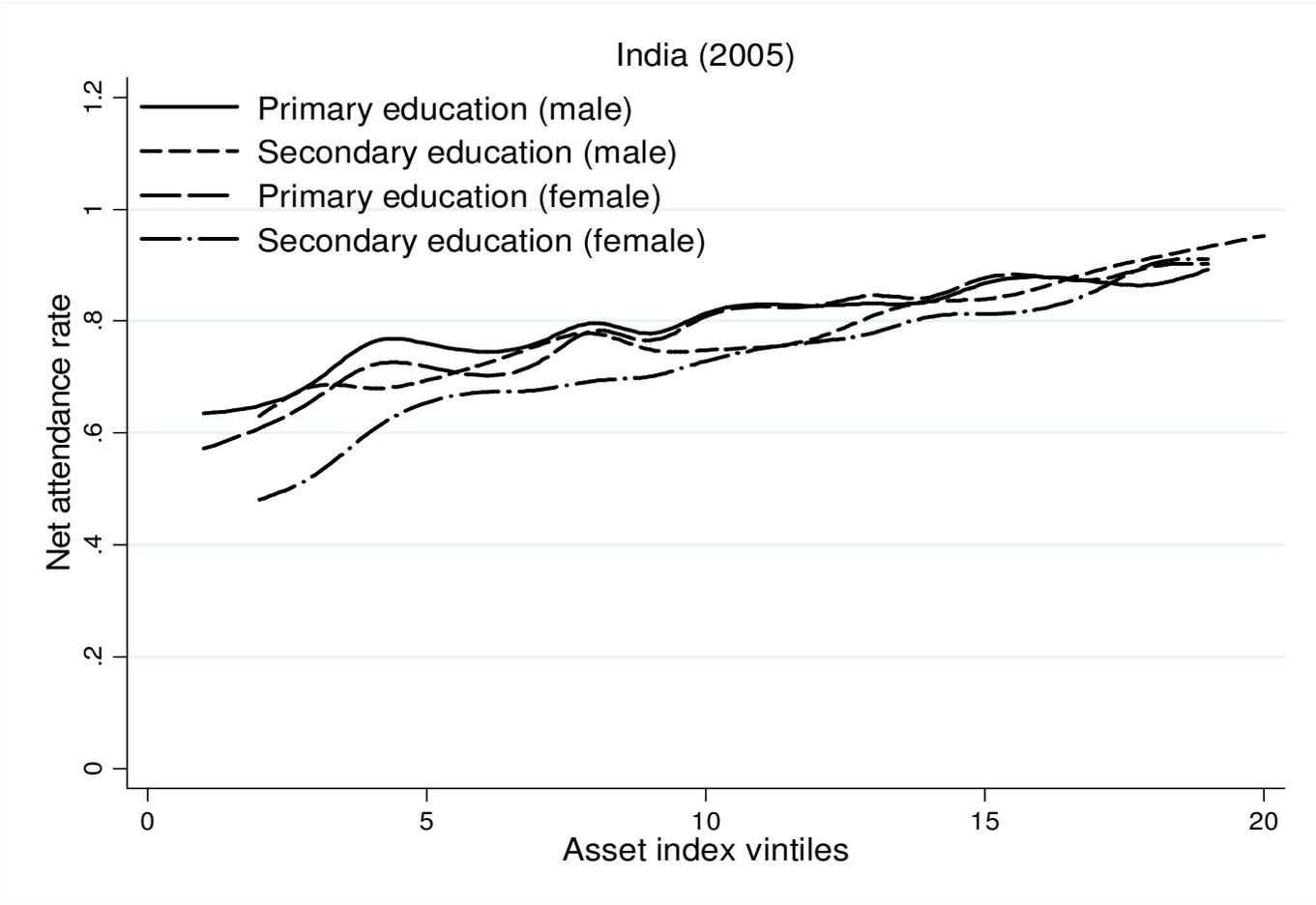
„Non-income growth incidence curves“

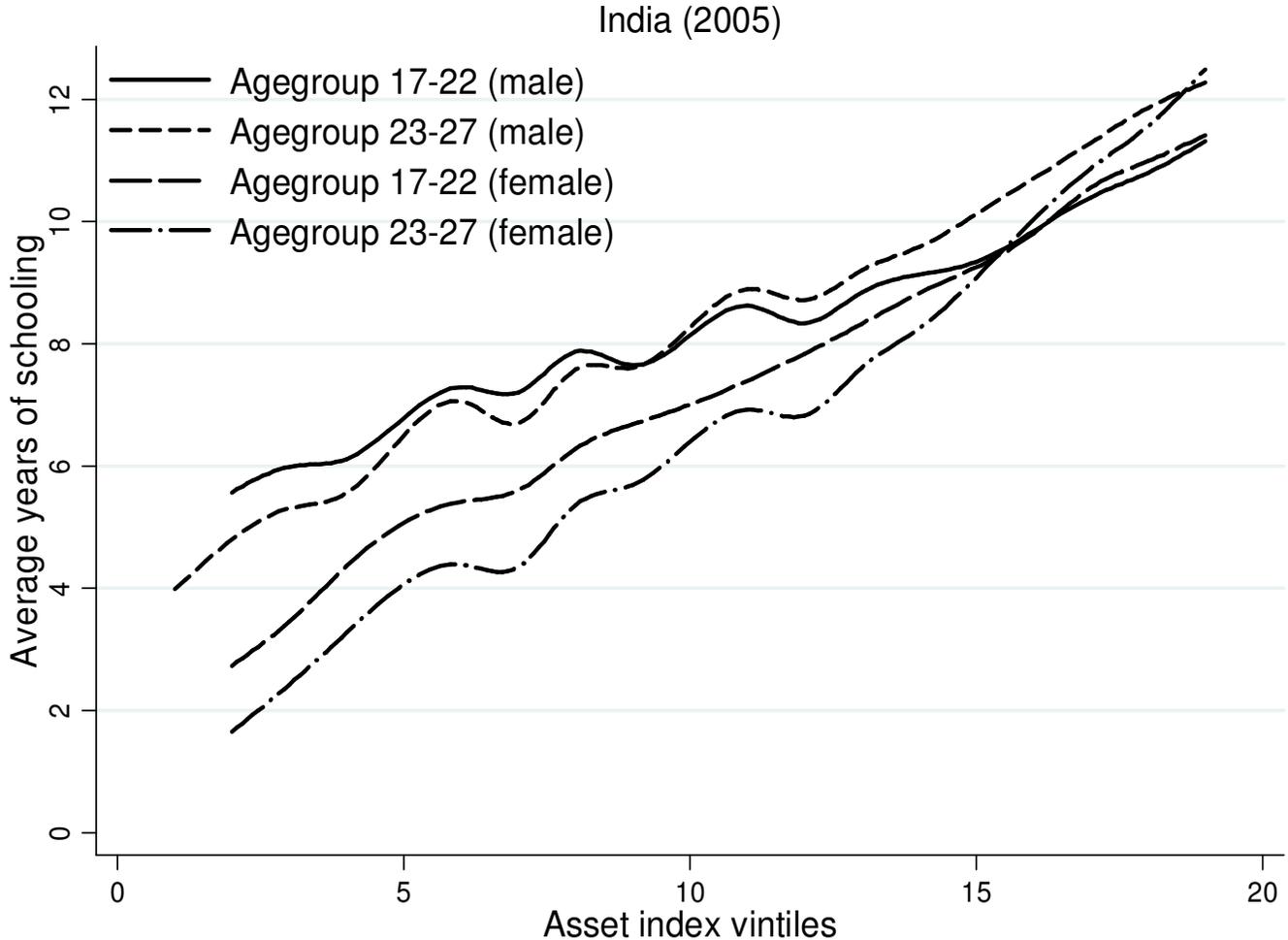
Income: use asset index

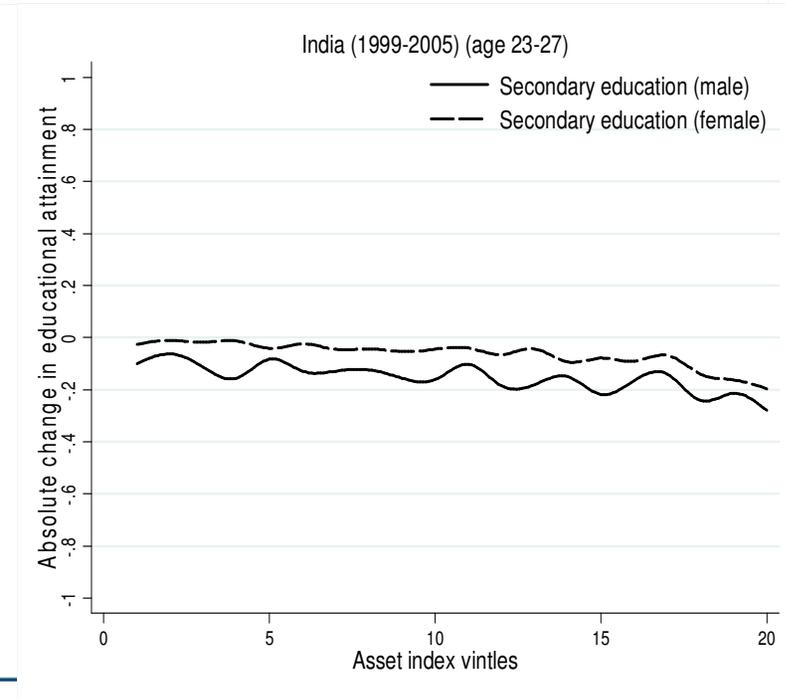
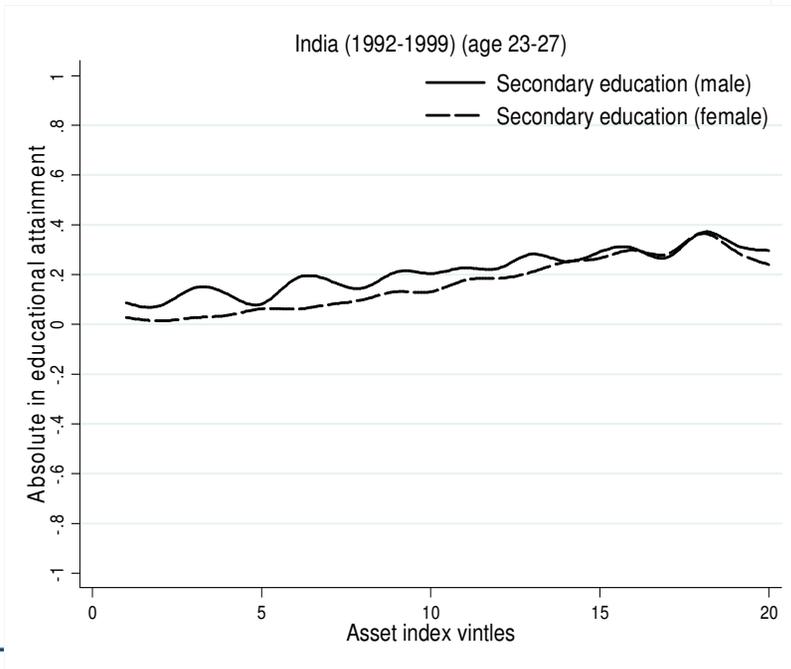
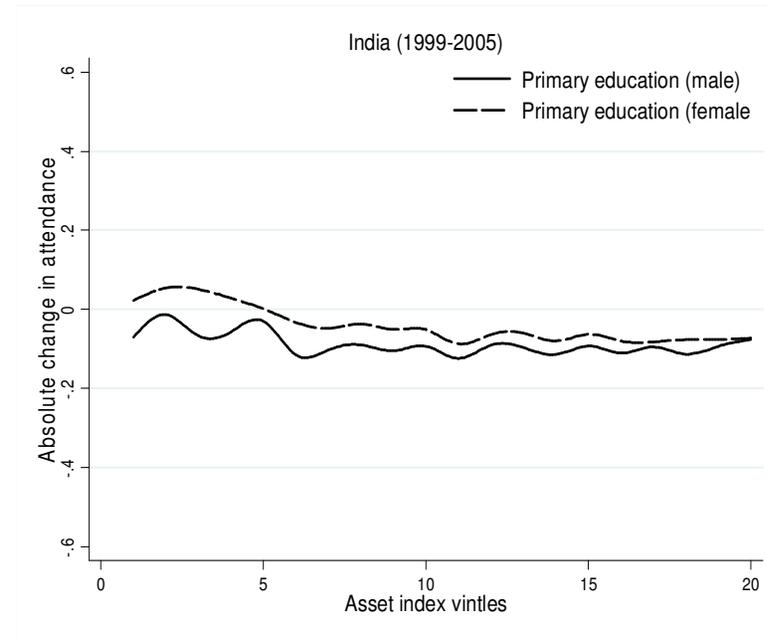
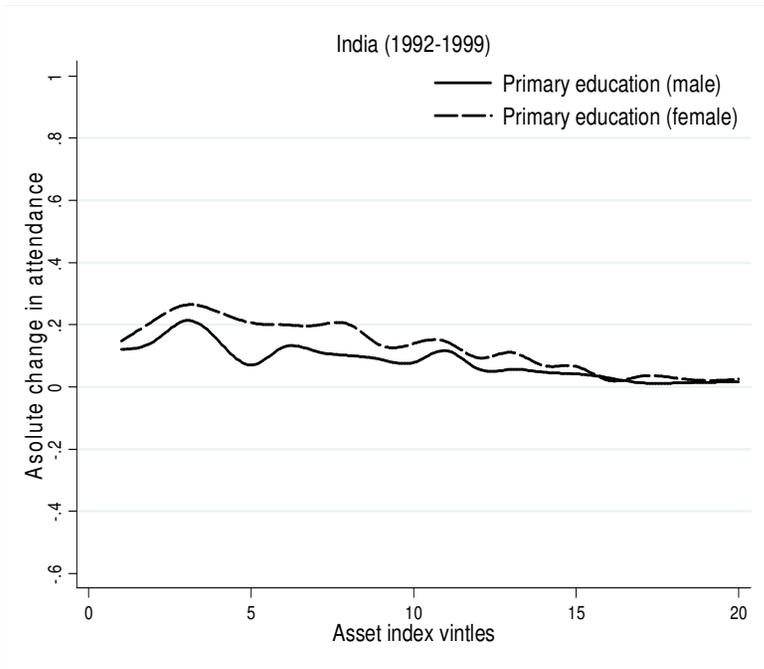
Data: 3 rounds of NFHS (1992, 1998, 2003)

Table 4: Gender Differentials in Education in India

| Year   |        | Quintiles |      |      |      |      | Mean | Ratio<br>5:1 |
|--|--------|-----------|------|------|------|------|------|--------------|
|  |        | 1         | 2    | 3    | 4    | 5    |      |              |
| <b>Net attendance (primary education)</b>          |        |           |      |      |      |      |      |              |
| 1992   | Male   | 58.9      | 74.1 | 82.4 | 90.5 | 96.5 | 80.5 | 1.64         |
|  | Female | 38.6      | 56.3 | 73.9 | 86.0 | 94.6 | 69.9 | 2.45         |
| 1999   | Male   | 74.6      | 84.3 | 90.9 | 94.9 | 97.9 | 88.5 | 1.31         |
|  | Female | 60.2      | 76.4 | 86.7 | 92.8 | 97.3 | 82.7 | 1.62         |
| 2003   | Male   | 69.2      | 76.0 | 80.6 | 84.5 | 88.5 | 79.7 | 1.28         |
|  | Female | 63.9      | 73.4 | 80.5 | 85.7 | 89.6 | 78.6 | 1.40         |
| <b>Net attendance (secondary education)</b>        |        |           |      |      |      |      |      |              |
| 1992   | Male   | 37.5      | 44.6 | 49.8 | 51.3 | 55.3 | 47.7 | 1.48         |
|  | Female | 18.1      | 28.4 | 38.6 | 46.9 | 52.9 | 37.0 | 2.92         |
| 1999   | Male   | 59.9      | 67.4 | 74.3 | 81.8 | 90.3 | 74.7 | 1.51         |
|  | Female | 34.8      | 48.6 | 61.9 | 73.9 | 87.5 | 61.3 | 2.52         |
| 2003   | Male   | 65.1      | 74.5 | 77.0 | 83.6 | 91.9 | 78.4 | 1.41         |
|  | Female | 51.4      | 65.1 | 74.3 | 81.3 | 89.6 | 72.3 | 1.74         |
| <b>Average years of education (Agegroup 17-22)</b> |        |           |      |      |      |      |      |              |
| 1992   | Male   | 4.4       | 5.9  | 7.1  | 8.2  | 10.3 | 7.2  | 2.32         |
|  | Female | 1.4       | 2.6  | 4.2  | 6.6  | 9.8  | 4.9  | 6.83         |
| 1999   | Male   | 5.2       | 6.3  | 7.5  | 8.7  | 10.5 | 7.6  | 2.03         |
|  | Female | 2.0       | 3.6  | 5.4  | 7.4  | 10.3 | 5.7  | 5.16         |
| 2003   | Male   | 5.6       | 7.2  | 8.2  | 9.3  | 11.0 | 8.3  | 1.95         |
|  | Female | 3.3       | 5.4  | 7.4  | 9.0  | 11.2 | 7.2  | 3.40         |



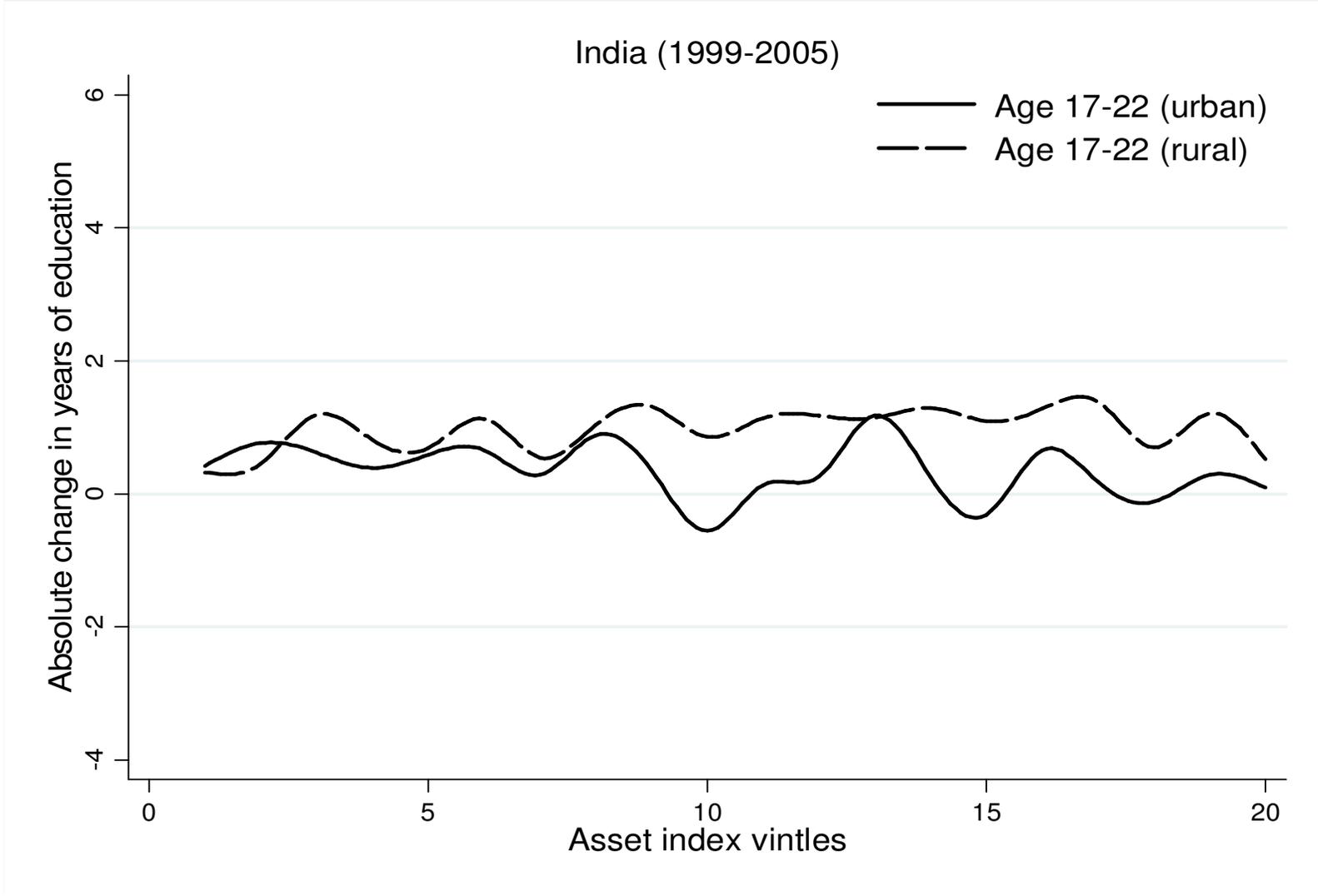


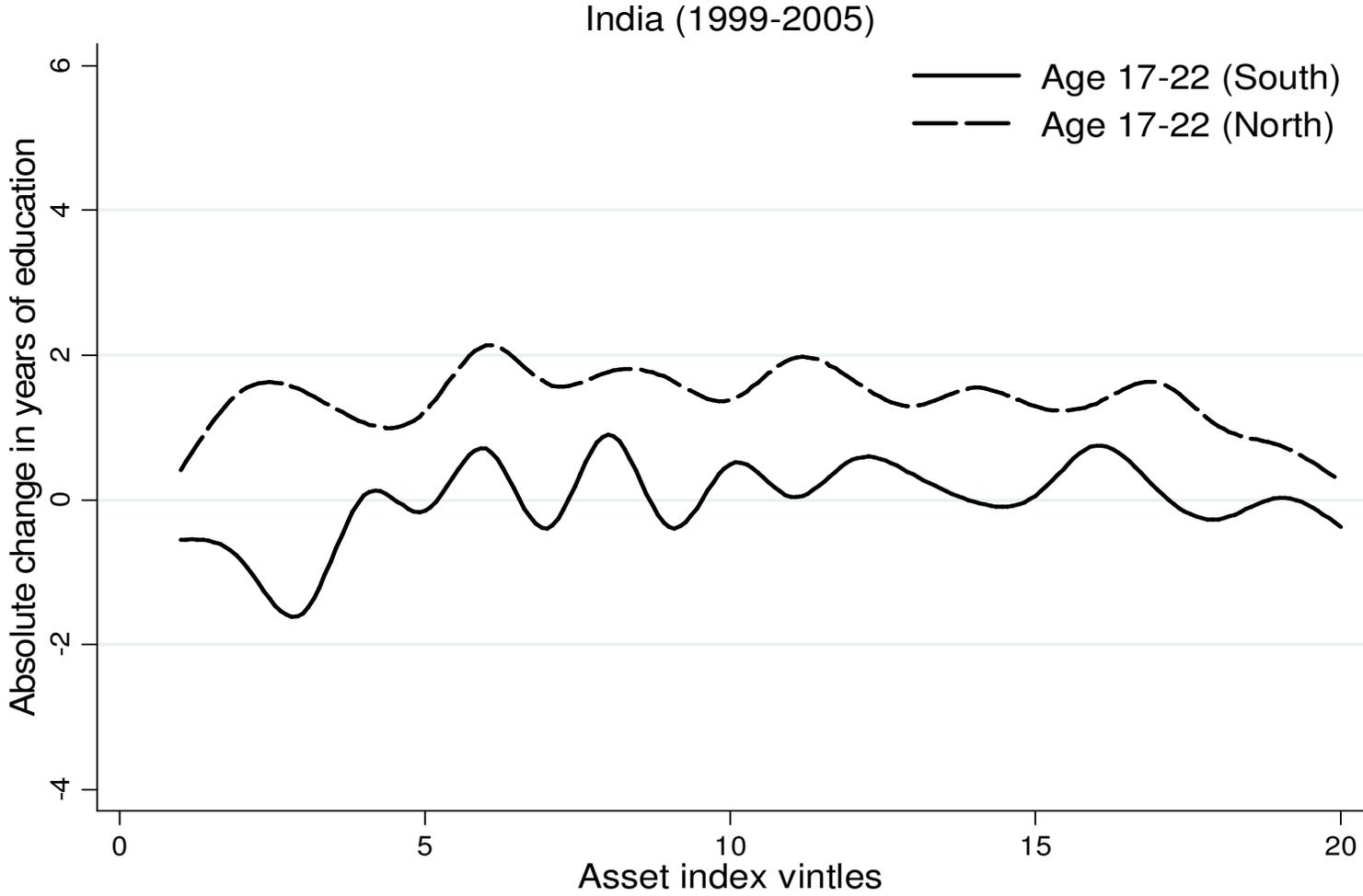


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Regional Differentials in Education in India GÖTTINGEN



| Year   | Region | Quintiles |       |       |       |       | Mean  | Ratio<br>5:1 |
|--|--------|-----------|-------|-------|-------|-------|-------|--------------|
|  |        | 1         | 2     | 3     | 4     | 5     |       |              |
| <b>Average years of education (Agegroup 17-22)</b>     |        |           |       |       |       |       |       |              |
| 1992   | Urban  | 4.82      | 6.75  | 8.51  | 9.88  | 11.14 | 8.22  | 2.31         |
|  | Rural  | 2.47      | 3.62  | 4.64  | 6.02  | 8.23  | 5.00  | 3.33         |
| 1998   | Urban  | 5.62      | 7.58  | 8.94  | 10.17 | 11.52 | 8.77  | 2.05         |
|  | Rural  | 3.13      | 4.20  | 5.41  | 6.73  | 8.80  | 5.65  | 2.81         |
| 2005   | Urban  | 6.21      | 8.19  | 9.02  | 10.64 | 11.63 | 9.14  | 1.87         |
|  | Rural  | 3.84      | 5.07  | 6.54  | 7.92  | 9.76  | 6.63  | 2.54         |
| <b>Secondary education completion (Agegroup 17-22)</b> |        |           |       |       |       |       |       |              |
| 1992   | Urban  | 5.95      | 12.09 | 21.44 | 34.25 | 53.03 | 13.40 | 8.91         |
|  | Rural  | 2.63      | 4.26  | 6.27  | 7.84  | 20.02 | 8.20  | 7.62         |
| 1998   | Urban  | 19.83     | 34.97 | 49.45 | 64.98 | 82.41 | 50.33 | 4.16         |
|  | Rural  | 8.30      | 12.86 | 19.20 | 28.41 | 50.68 | 23.89 | 6.11         |
| 2005   | Urban  | 8.71      | 20.09 | 27.13 | 44.29 | 58.17 | 31.68 | 6.68         |
|  | Rural  | 2.98      | 4.79  | 9.03  | 16.90 | 33.31 | 13.40 | 11.16        |
| <b>Higher education completion (Agegroup 17-22)</b>    |        |           |       |       |       |       |       |              |
| 1992   | Urban  | 2.71      | 5.44  | 10.45 | 18.75 | 31.68 | 13.80 | 11.71        |
|  | Rural  | 1.22      | 1.93  | 2.51  | 3.17  | 8.67  | 3.50  | 7.08         |
| 1998   | Urban  | 10.33     | 21.90 | 33.69 | 47.80 | 68.11 | 36.37 | 6.59         |
|  | Rural  | 3.75      | 6.20  | 9.90  | 15.25 | 32.82 | 13.58 | 8.76         |
| 2005   | Urban  | 3.99      | 10.12 | 13.32 | 24.69 | 36.73 | 17.77 | 9.19         |
|  | Rural  | 0.94      | 1.75  | 3.21  | 6.28  | 14.85 | 5.41  | 15.87        |





## Some conclusions

Education an increasingly binding constraint for growth and pro-poor growth in India;  
Large gaps by gender, rural-urban, region;  
Educational expansion reduced gender and rural-urban gaps somewhat (particularly 1998-2003);  
But educational progress not particularly pro-poor;  
Educational expansion needs to include the poor more:

- Focus on rural areas and beyond primary education;
- Supply and quality issues (PROBE Report);
- Demand issue (costs, demand-side transfers?); what India can learn from Bangladesh.