

# Gender and Development in Philippine Science, Technology and Innovation Ecosystem

**Rowena Cristina L. Guevara**

**Social Responsibilities of Science  
Gender Summit 10, May 26, 2017**

**Tokyo**

# Outline

- Introduction
- Factsheet on Filipino Men and Women
- Human Resource Development (HRD) for Science, Technology and Innovation (STI)
- Social Responsibilities of Science

# President Corazon Aquino

First woman President of the Philippines  
(1986)



# President Gloria Macapagal-Arroyo

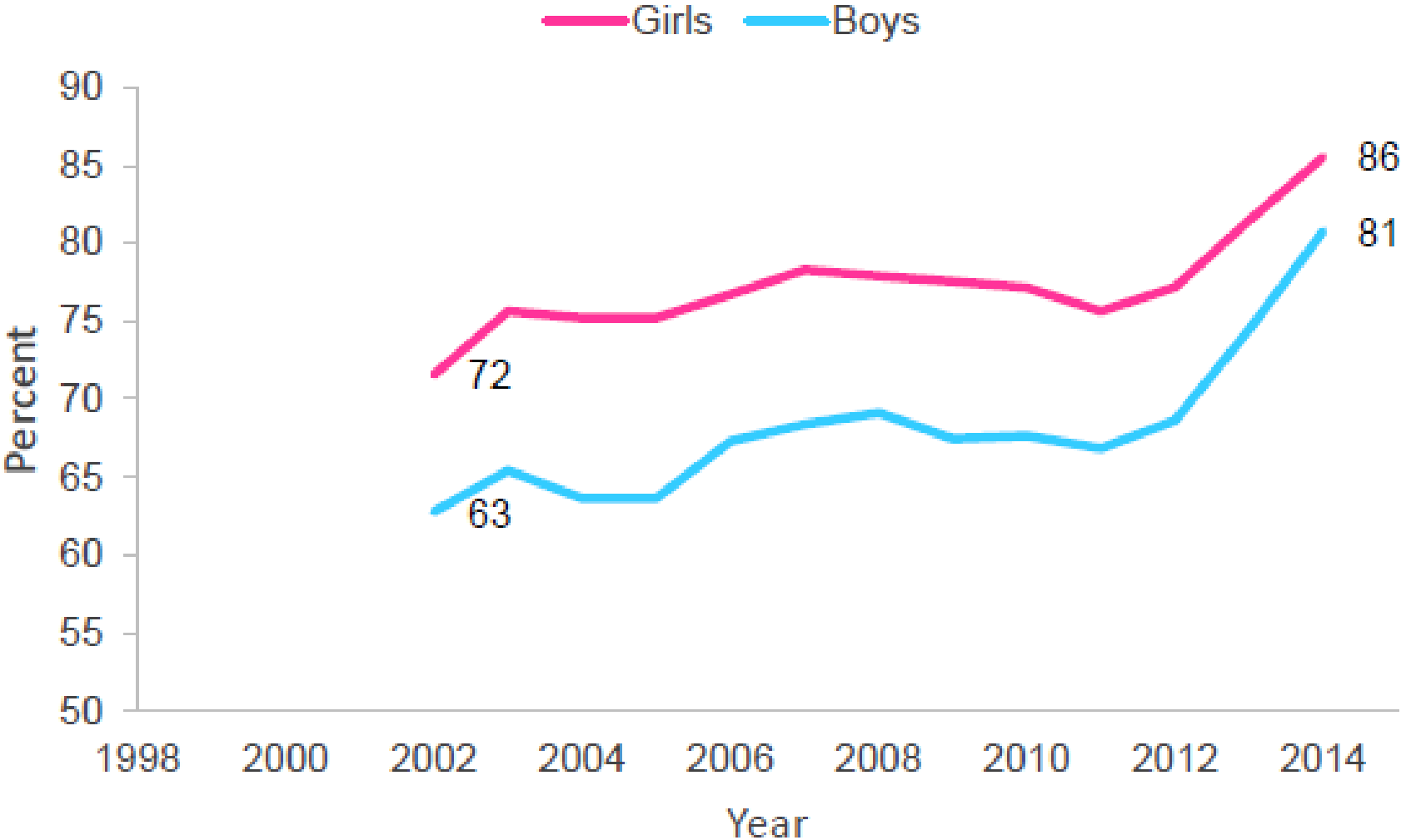
Second woman President of the Philippines  
(2000)



# Seven (7) National Mandates

1. 1987 Philippine Constitution Section 14, Article II
2. Republic Act 6949 or National Women's Month
3. RA 7192 or the Women in Development and Nation Building Act
4. Executive Order 273 - Philippine Plan for Gender Responsive Development (PPGD), 1995-2025
5. General Appropriations Act (GAA)
6. R.A. 9710 "Magna Carta of Women" – August 14, 2009
7. PCW Memorandum Circular 2011-01
8. Joint Circular No. 2012-01 of DBM, NEDA and PCW

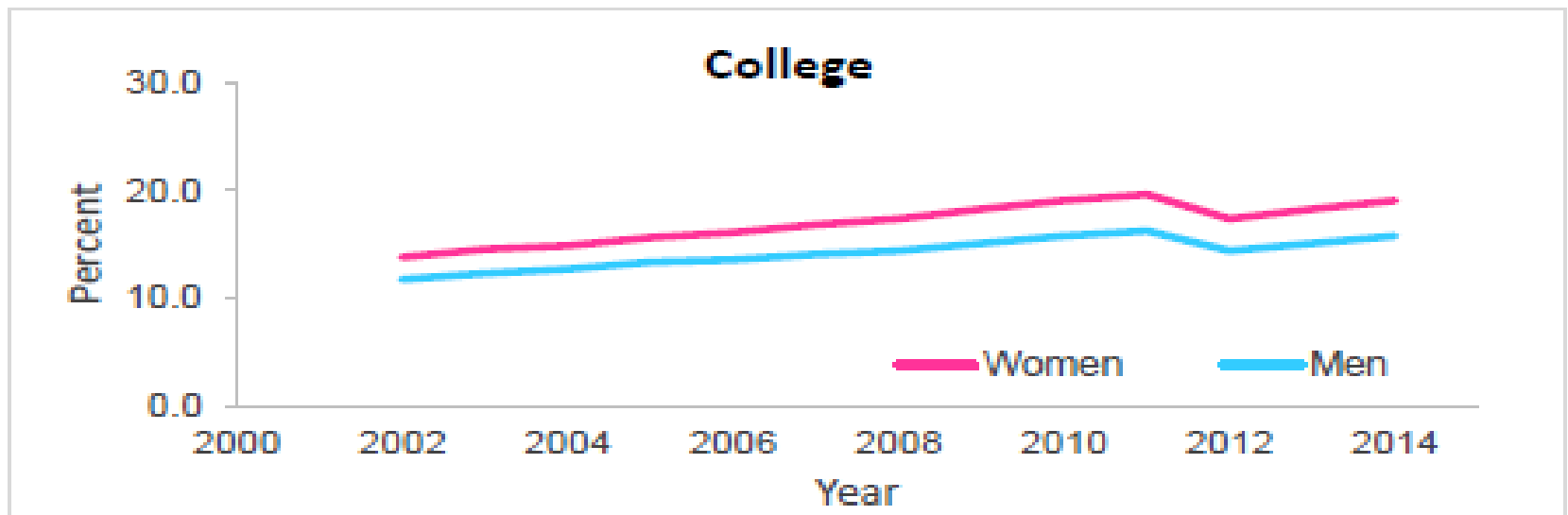
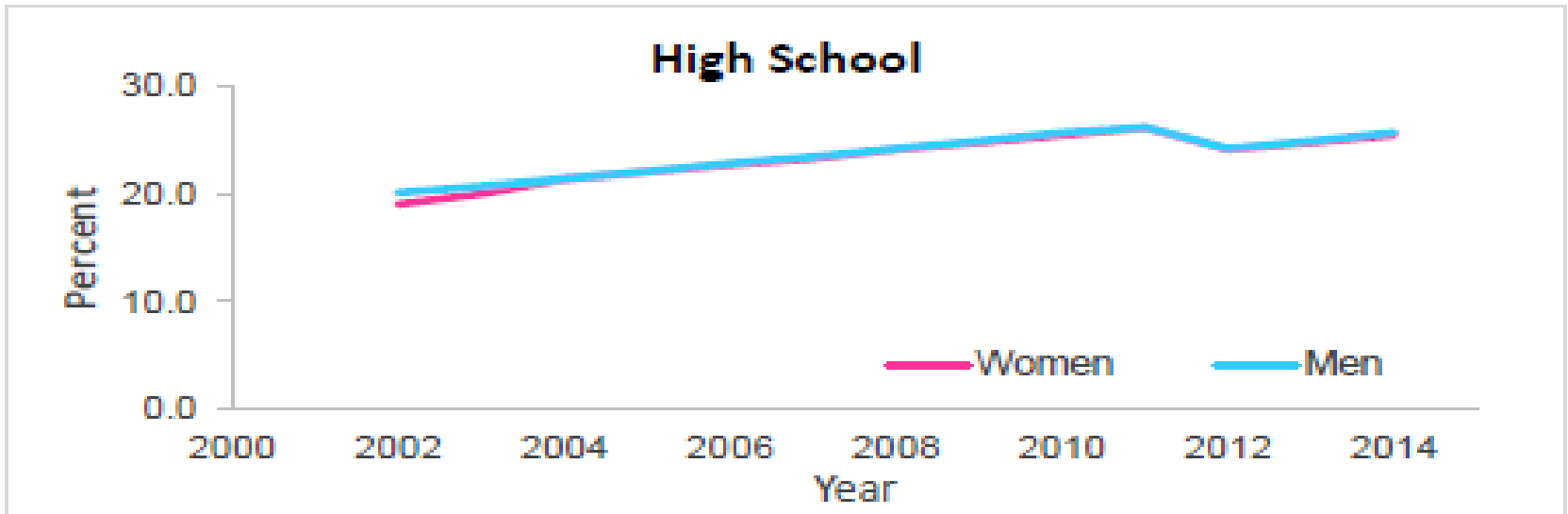
# Elementary Completion Rate 2002-2014



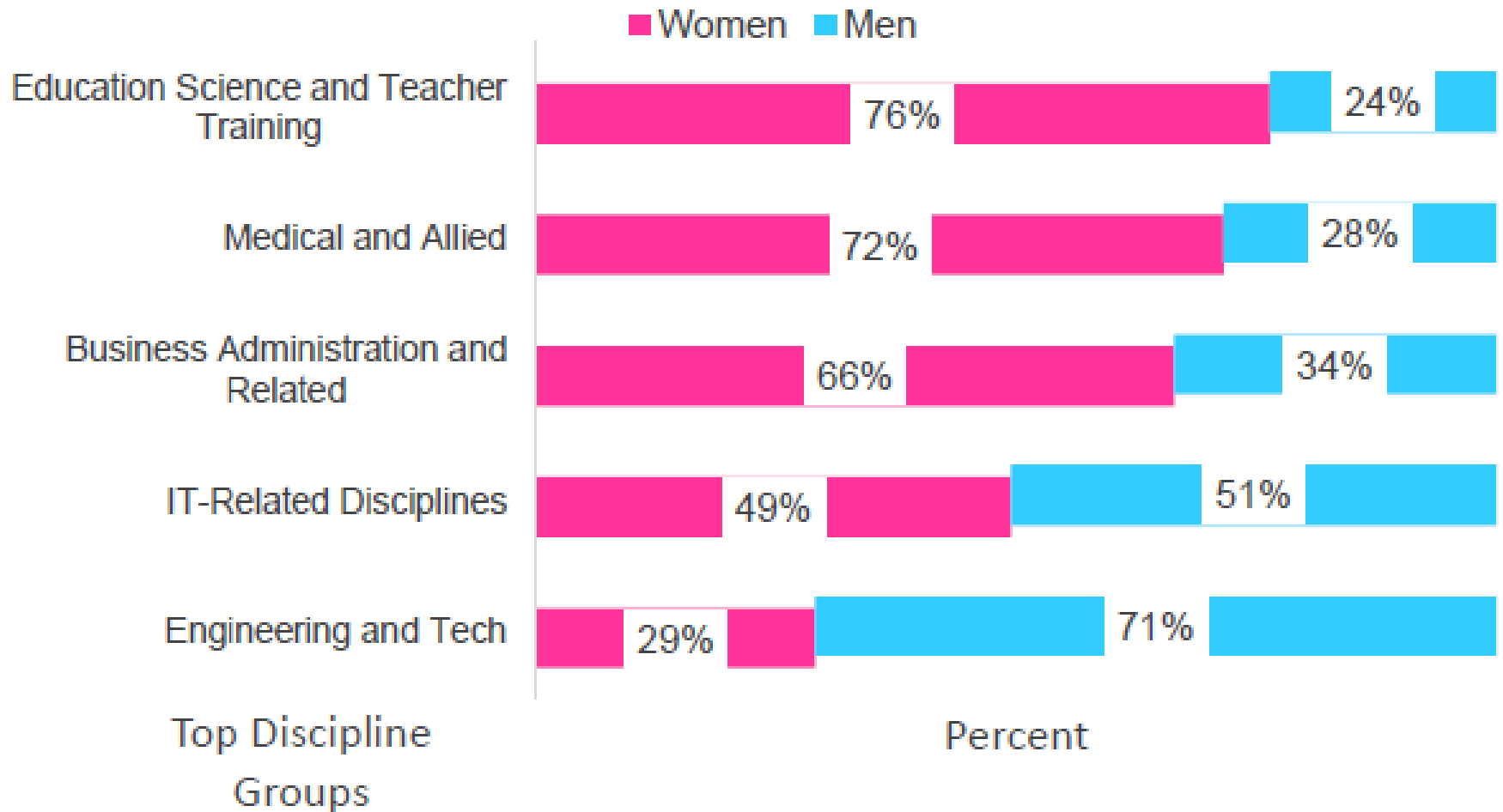
Source :Basic Education Information System (BEIS), Department of Education

Note: No data for 2000-2001

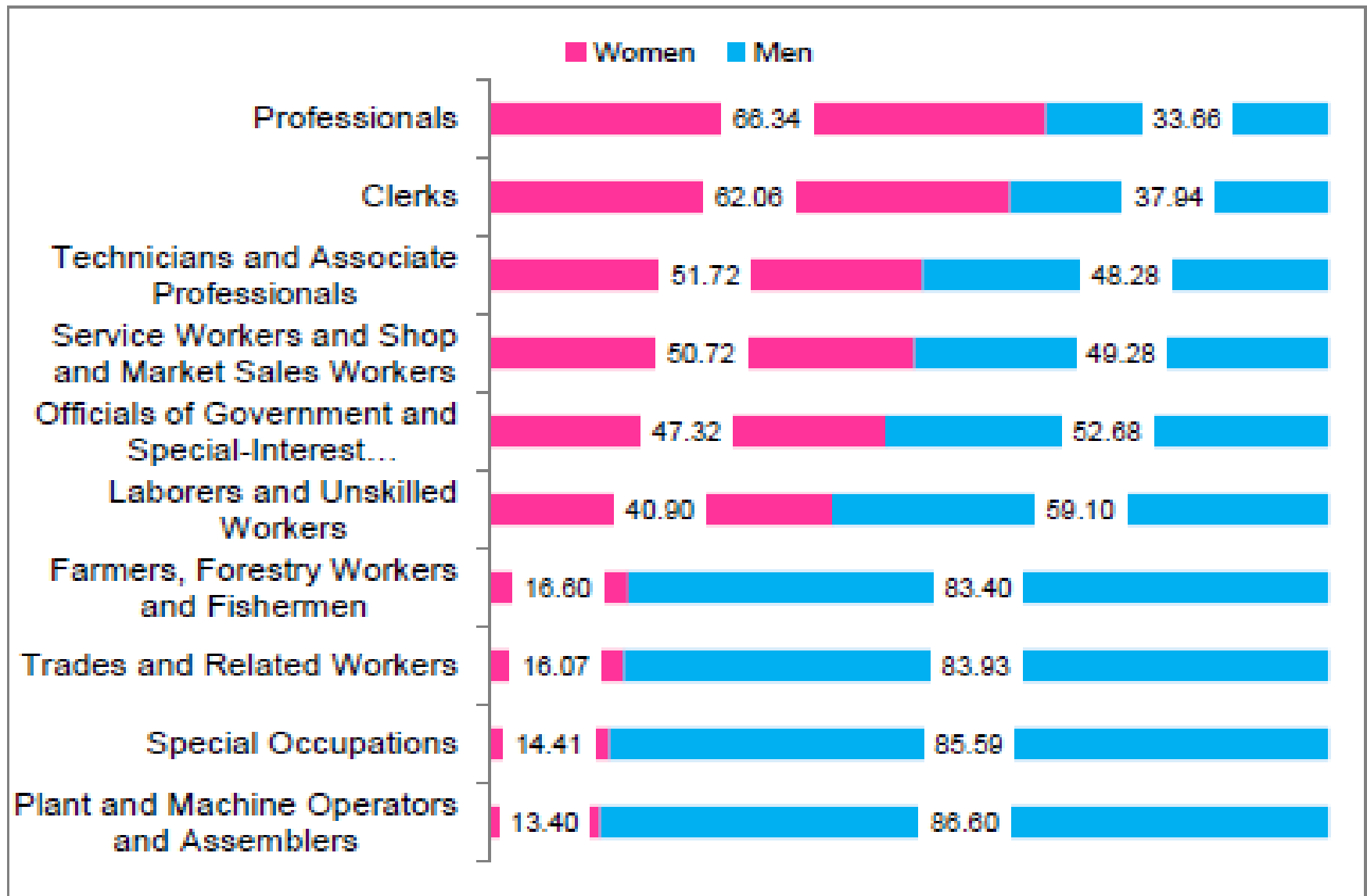
# Educational Attainment of Women and Men



# Proportion of Graduate Women and Men by Top Discipline Groups AY 2013-2014

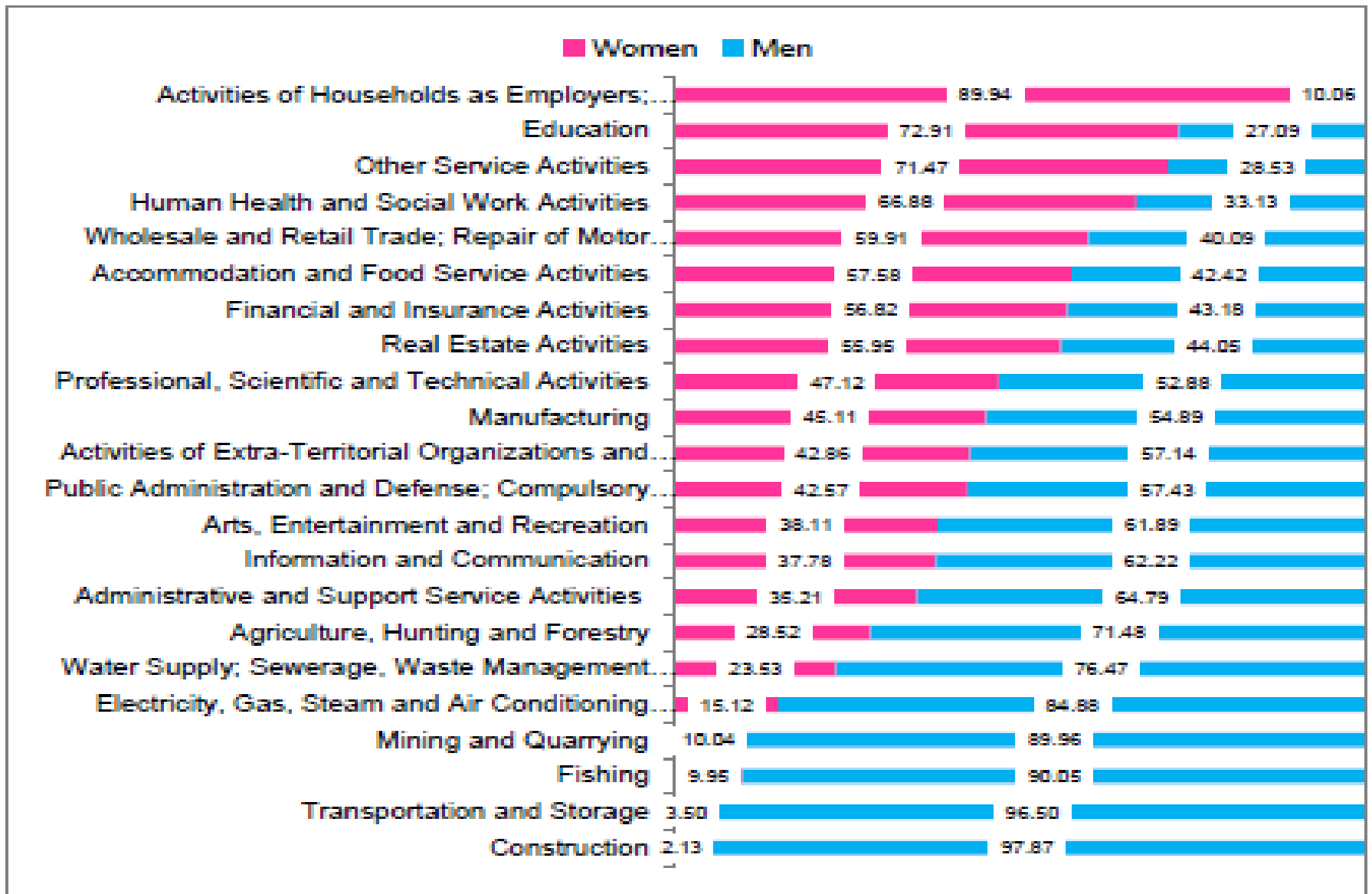


# Distribution of Women and Men, by Occupation Group (2014)

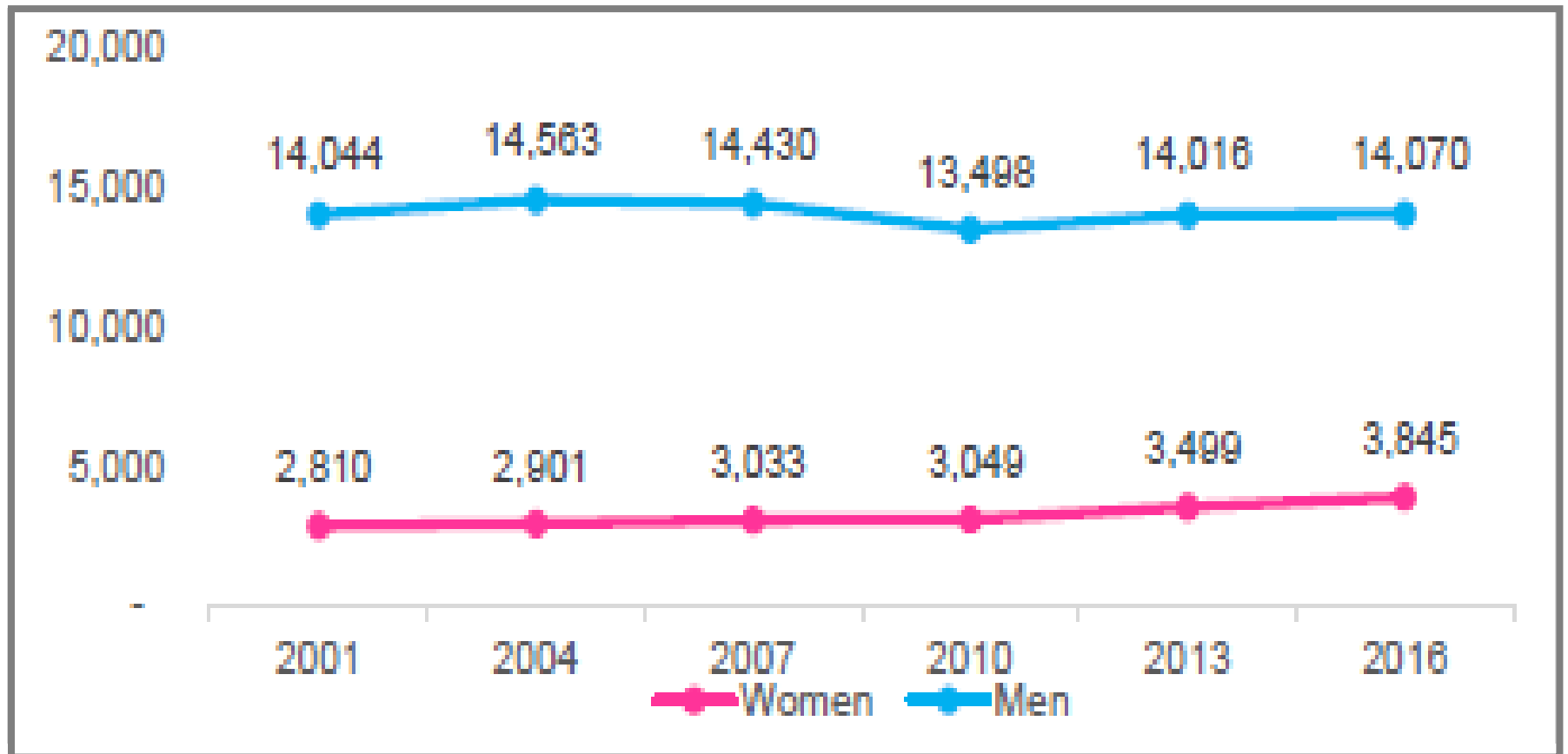




# Distribution of Women and Men, by Industry (2014)



# Total Number of Elected Positions by Positions and Sex



# Number of Judges, by Sex (2000 to 2015)



# ERDT Program Leaders and UP College of Engineering Deans (2004 to present)

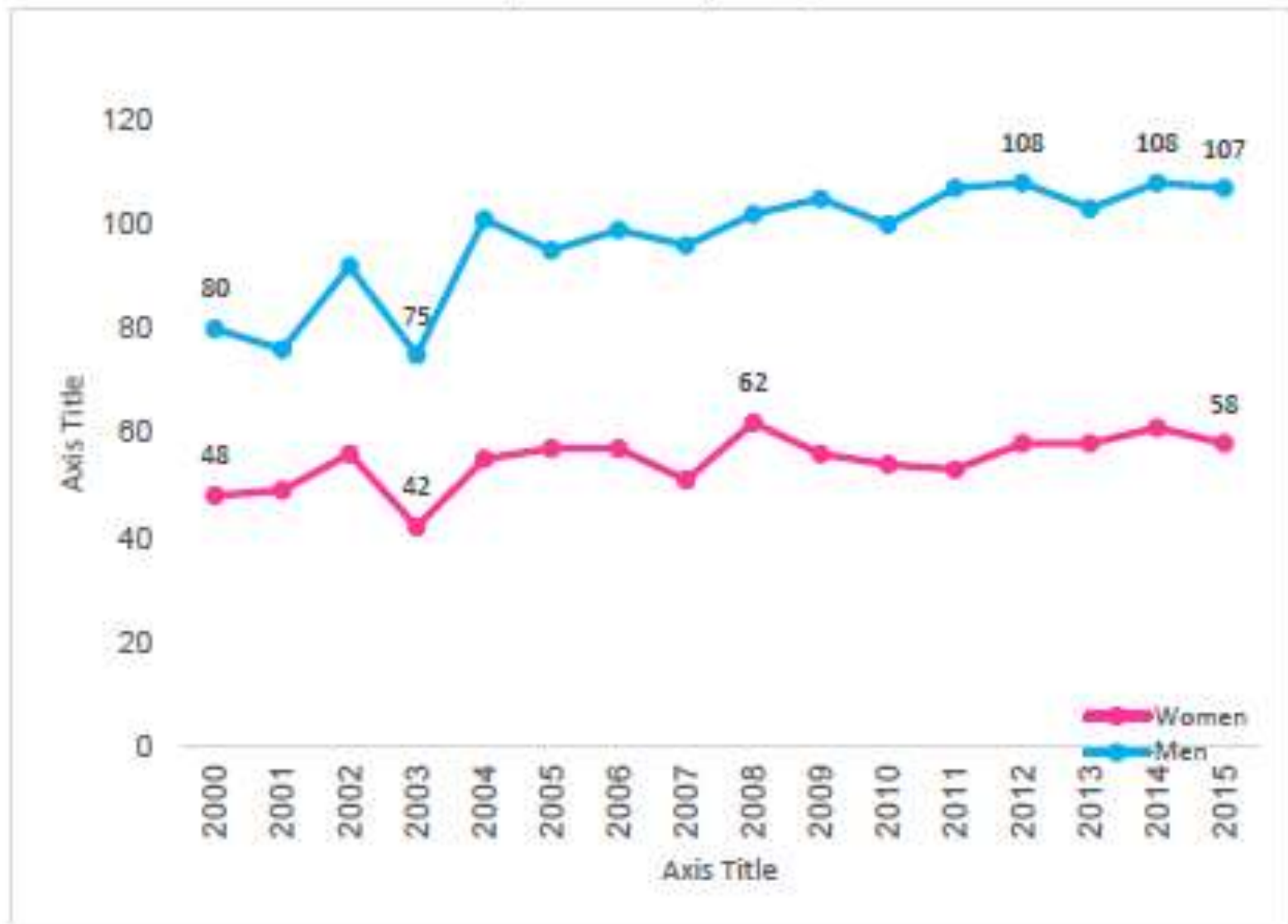


# Average Annual Income, Expenditures and Savings (in pesos), by Sex of Household Head

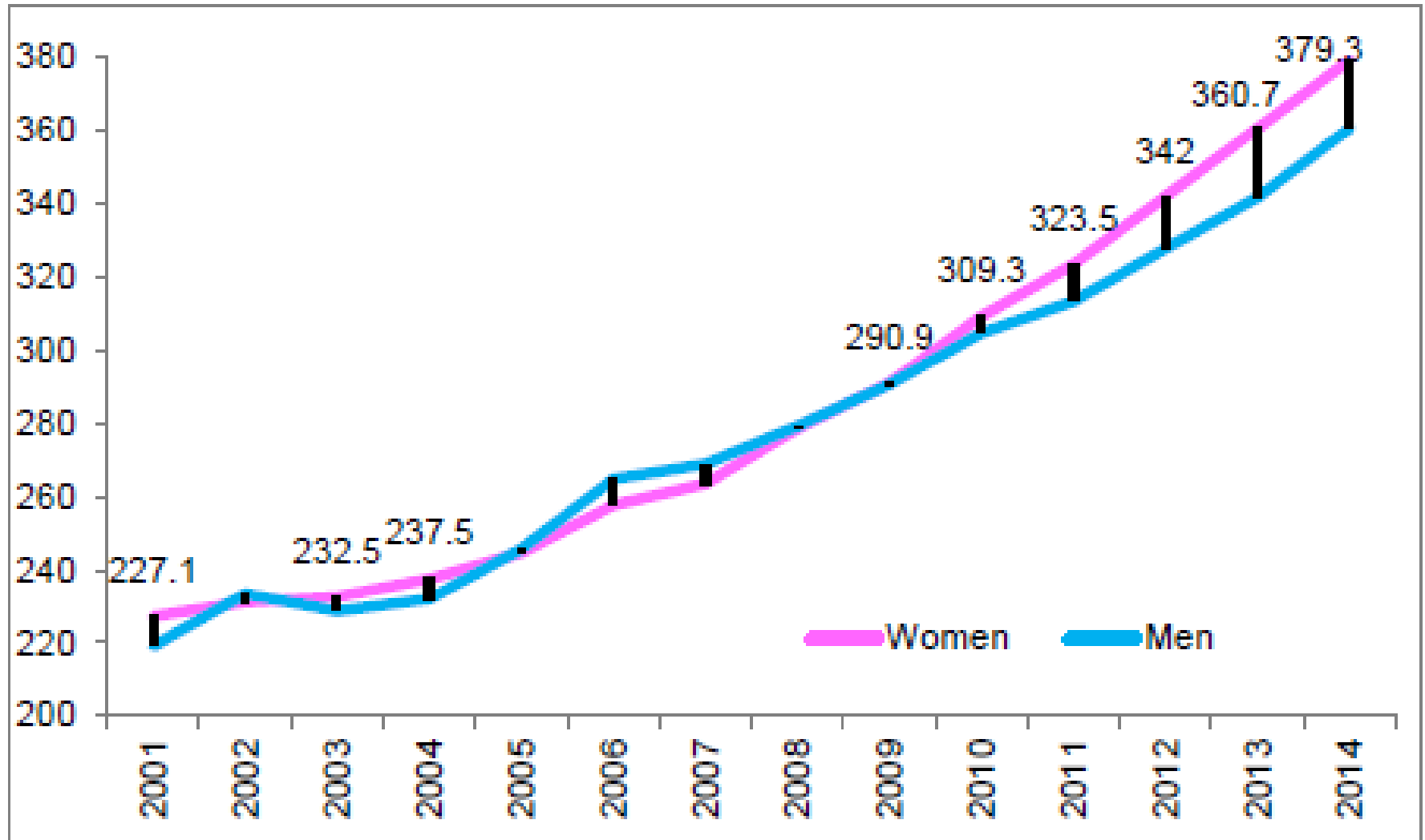
| Item                       | 2000   |        | 2003   |        | 2006    |         | 2009   |        |
|----------------------------|--------|--------|--------|--------|---------|---------|--------|--------|
|                            | Women  | Men    | Women  | Men    | Women   | Men     | Women  | Men    |
|                            | Amount | Amount | Amount | Amount | Amount  | Amount  | Amount | Amount |
| Average Annual Income      | 86,703 | 85,144 | 98,091 | 91,769 | 197,629 | 167,013 | 91,769 | 100.0  |
| Average Annual Expenditure | 71,350 | 73,228 | 81,489 | 80,322 | 164,240 | 143,262 | 80,322 | 87.5   |
| Average Annual Savings     | 15,354 | 11,916 | 16,602 | 11,448 | 33,390  | 23,750  | 11,448 | 12.5   |

| Item                       | 2012   |        | 2015   |        |
|----------------------------|--------|--------|--------|--------|
|                            | Women  | Men    | Women  | Men    |
|                            | Amount | Amount | Amount | Amount |
| Average Annual Income      | 86,703 | 85,144 | 98,091 | 91,769 |
| Average Annual Expenditure | 71,350 | 73,228 | 81,489 | 80,322 |
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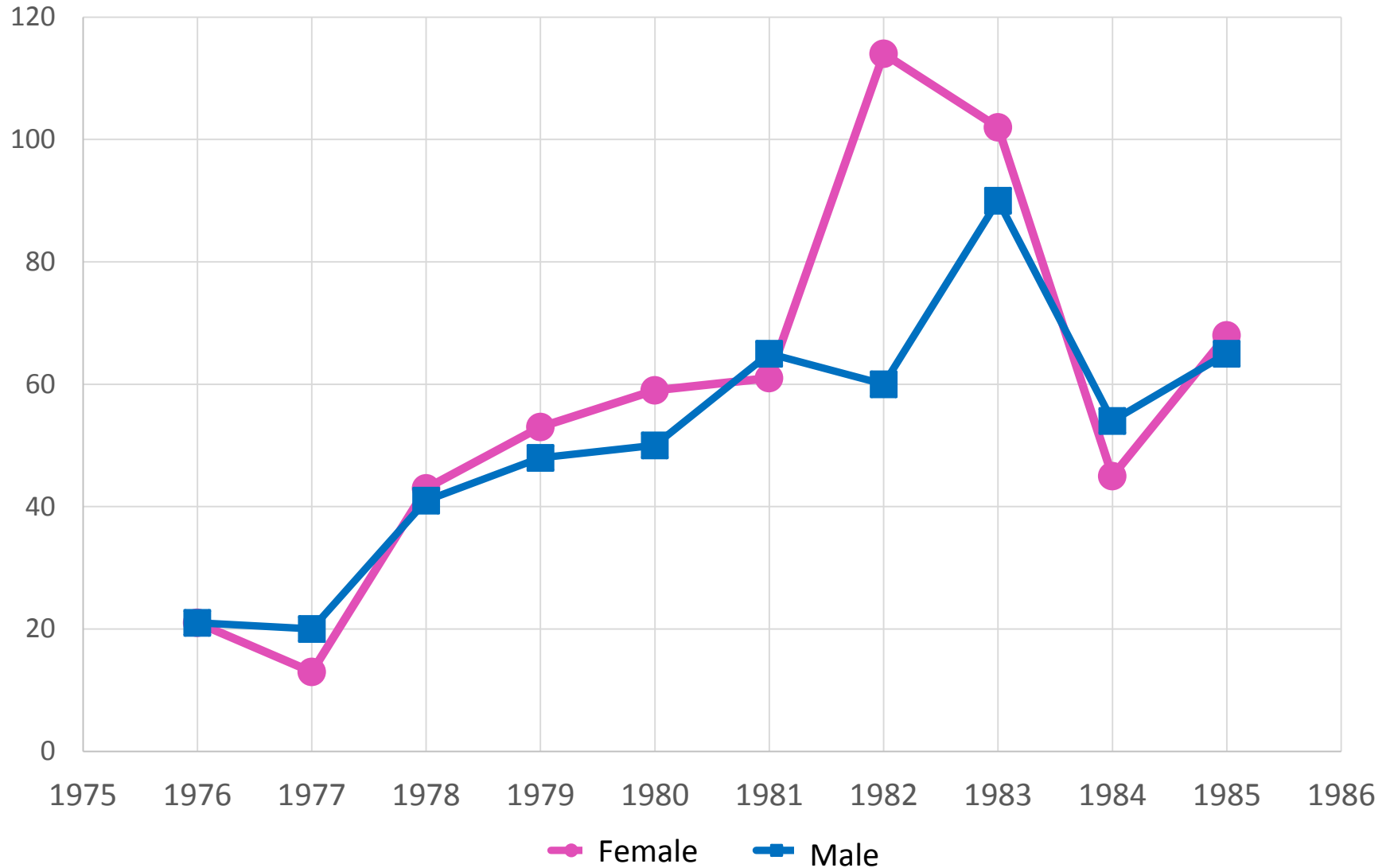
# Average Remittance per Overseas Filipino Worker in thousand pesos (2000 to 2015)



# Average Wages of Women and Men (2000 to 2014)

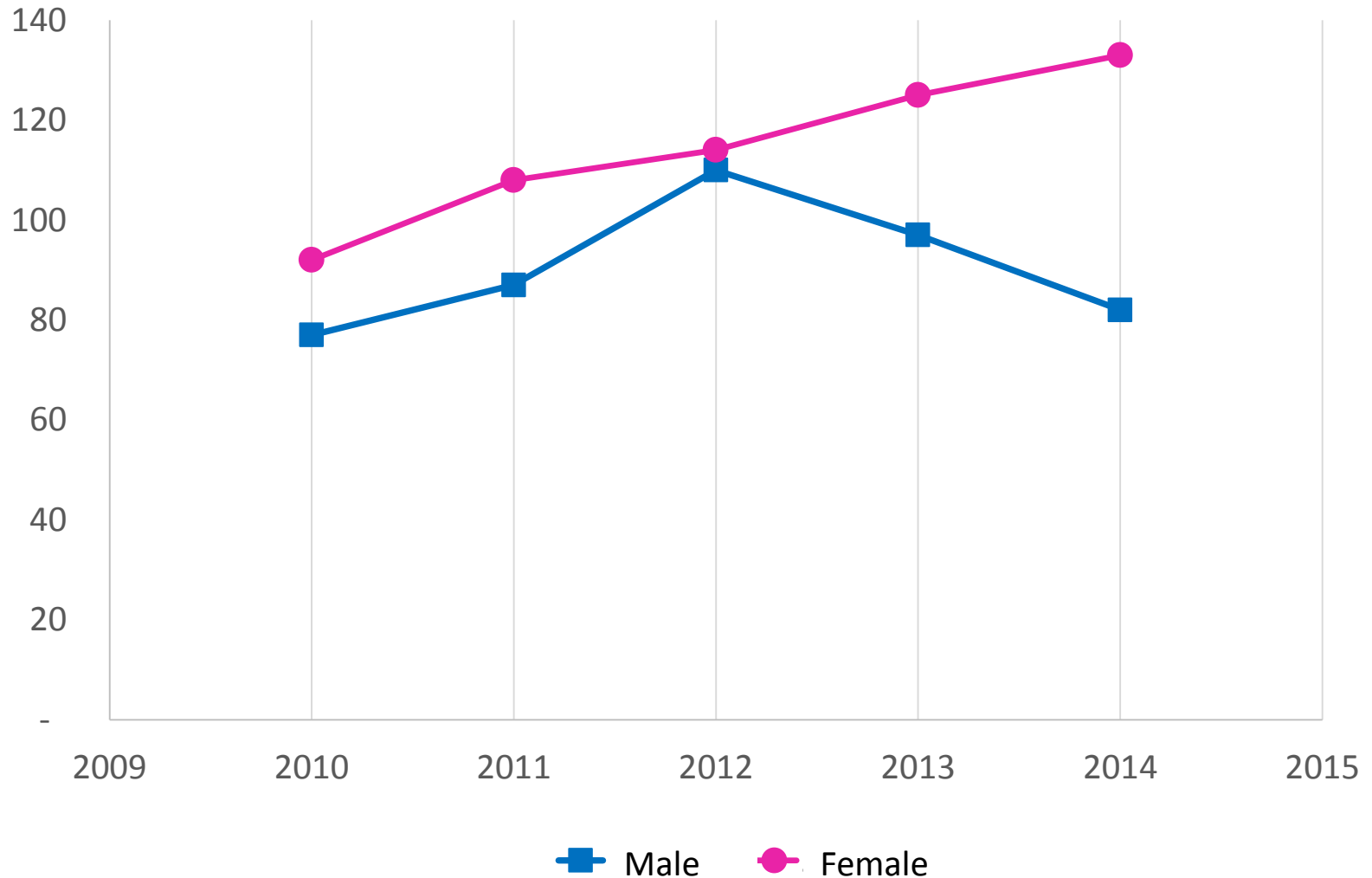


# Graduates of Science and Engineering Scholarships (Bachelor's Degree)

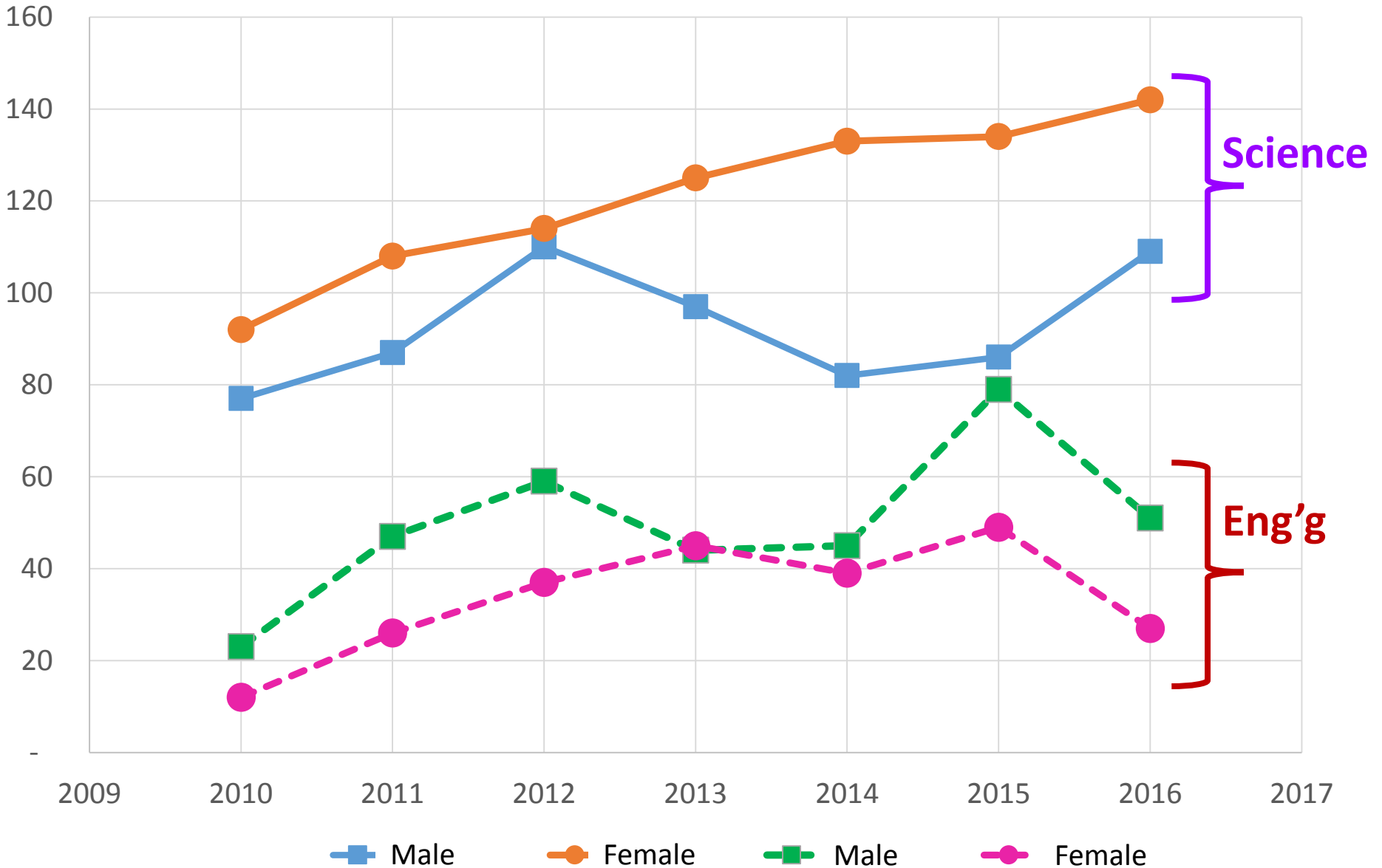




## Graduates of Science and Engineering Scholarships (Bachelor's Degree)



# Graduates of MS in Science and Engineering Scholarship



# DOST R&D Project Leaders

| Sectors                          | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       |               |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------------|
|                                  | 9          | 6          | 7          | 11         | 25         | 14         | 12         | 13         | 3          |               |
| BASIC Research                   | <b>18</b>  | <b>26</b>  | <b>14</b>  | <b>10</b>  | <b>28</b>  | <b>22</b>  | <b>24</b>  | <b>20</b>  | <b>11</b>  | <b>63.37%</b> |
| Agriculture, Aquatic and Natural | 101        | 100        | 76         | 91         | 80         | 127        | 165        | 128        | 116        |               |
|                                  | <b>102</b> | <b>132</b> | <b>117</b> | <b>94</b>  | <b>94</b>  | <b>125</b> | <b>164</b> | <b>147</b> | <b>113</b> | <b>52.51%</b> |
| Health                           | 1          | 6          | 12         | 13         | 6          | 8          | 11         | 12         | 17         |               |
|                                  | <b>2</b>   | <b>2</b>   | <b>7</b>   | <b>8</b>   | <b>5</b>   | <b>6</b>   | <b>5</b>   | <b>9</b>   | <b>10</b>  | <b>38.57%</b> |
| Industry, Energy and Emerging    | 68         | 113        | 122        | 144        | 64         | 93         | 137        | 101        | 101        |               |
|                                  | <b>43</b>  | <b>89</b>  | <b>123</b> | <b>96</b>  | <b>77</b>  | <b>68</b>  | <b>95</b>  | <b>70</b>  | <b>63</b>  | <b>43.43%</b> |
| Others                           | 36         | 25         | 13         | 31         | 31         | 22         | 6          | 5          | 20         |               |
|                                  | <b>47</b>  | <b>26</b>  | <b>30</b>  | <b>19</b>  | <b>36</b>  | <b>24</b>  | <b>8</b>   | <b>9</b>   | <b>13</b>  | <b>52.87%</b> |
| Overall                          | 215        | 250        | 230        | 290        | 206        | 264        | 331        | 259        | 257        |               |
|                                  | <b>212</b> | <b>275</b> | <b>291</b> | <b>227</b> | <b>240</b> | <b>245</b> | <b>296</b> | <b>255</b> | <b>210</b> | <b>49.44%</b> |

Legend: MALE, **FEMALE**

# Gender mainstreaming in R&D

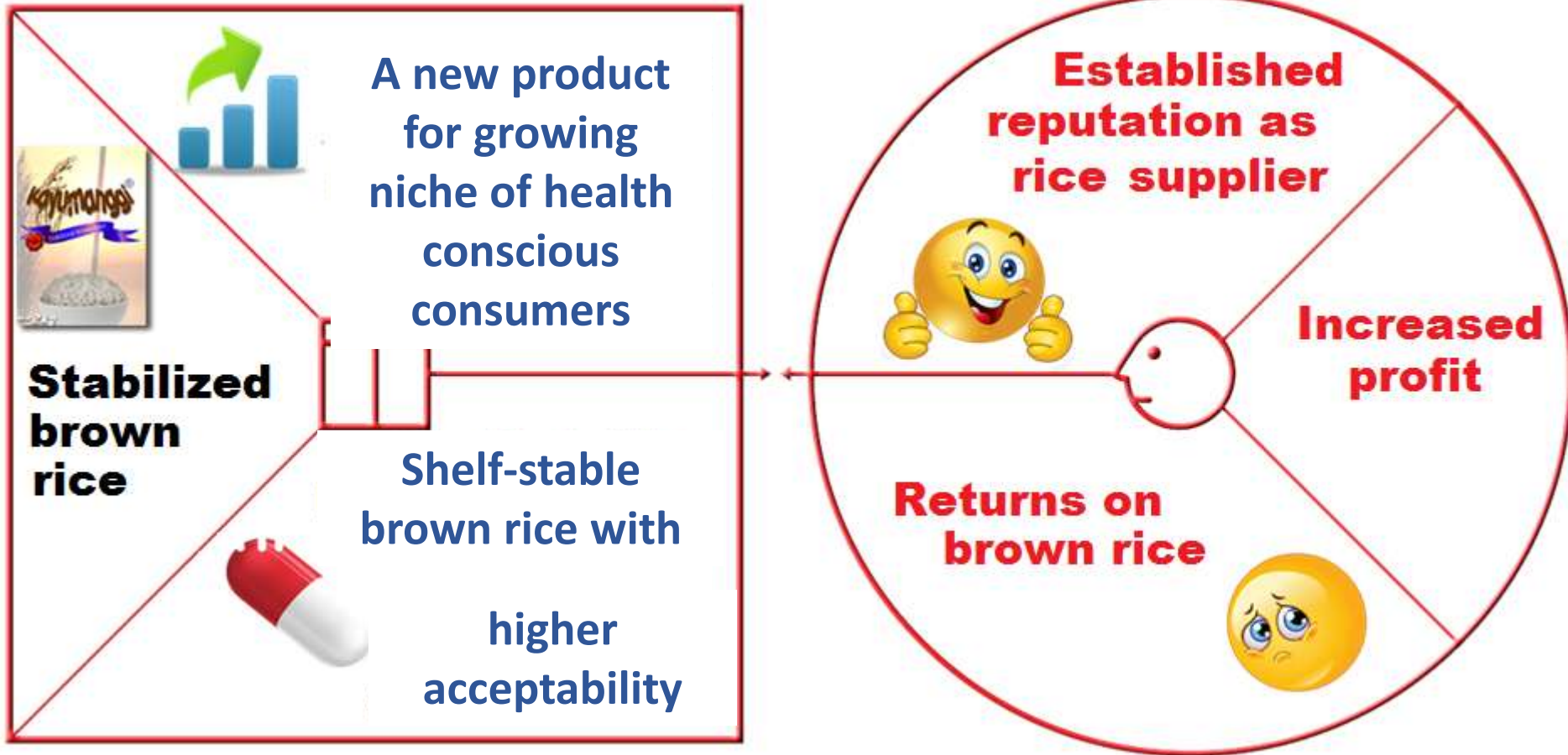


**STABILIZED BROWN RICE =  
Healthy Food CHOICE + Business Opportunity**

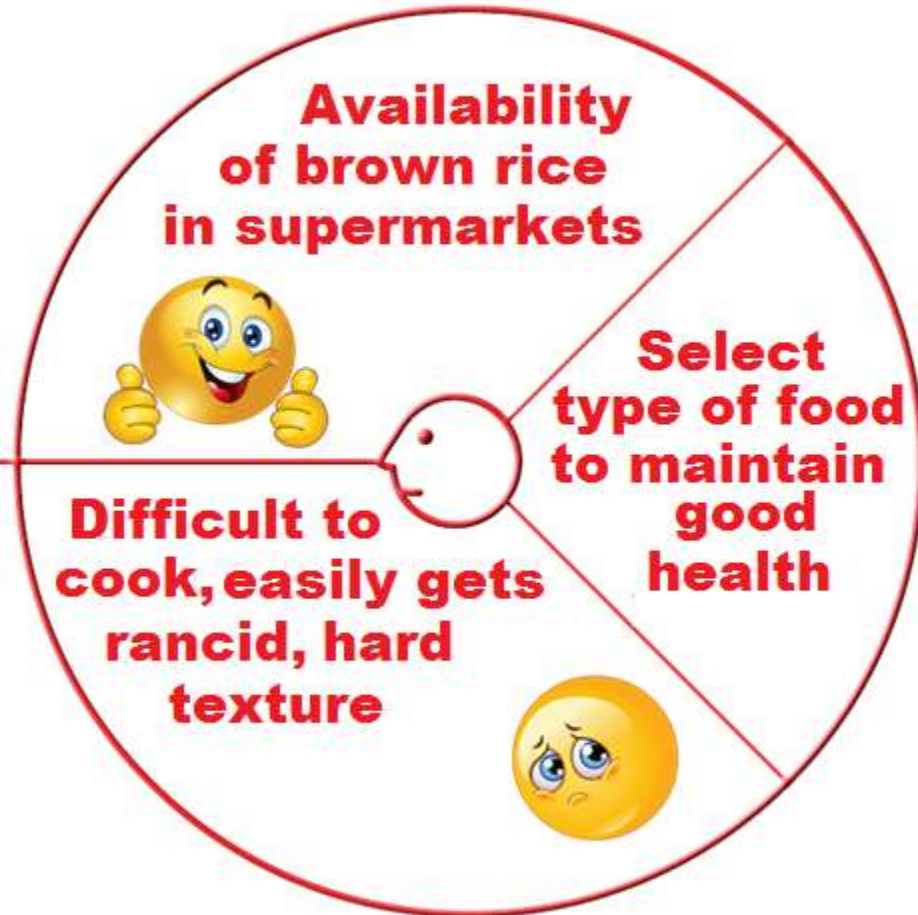
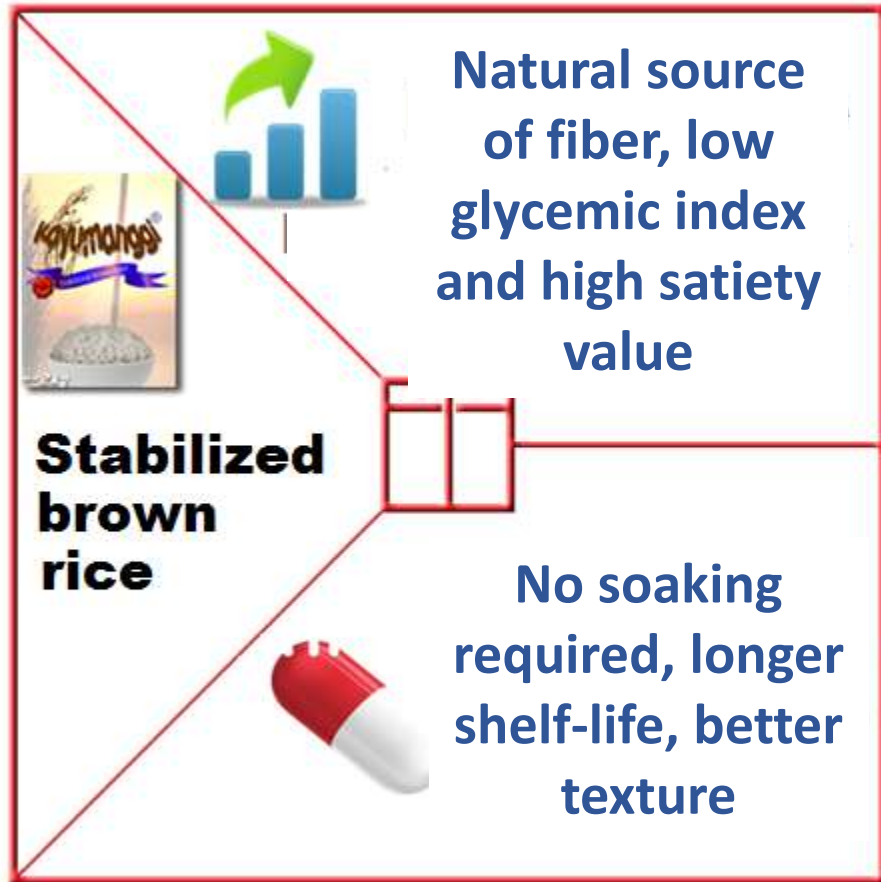
A close-up photograph of a white bowl with a red rim, filled with stabilized brown rice. The rice grains are light brown and appear to have a slightly glossy texture. The bowl is positioned in the lower half of the frame, with the rice filling most of the bowl's interior.

**Engr. Rosemarie G. Garcia**  
**Department of Science & Technology**  
**Food and Nutrition Research Institute**

# VALUE PROPOSITION (Primary customers)



# VALUE PROPOSITION (Secondary customers)



# Stabilized brown rice is now in the market!!





# ADAMSON UNIVERSITY



## **NATURAL Treatment**

- **Odor – FREE**
- **LOW Cost**
  - **MINIMIZE Power**
  - **NO ADDITIONAL Equipment**
  - **NO SKILLED Manpower**
- **INSENSITIVE to SHOCK LOAD and pH**
  - **BUFFER MINERALS**

**Dr. Mel Palencia**

**BEFORE  
VIGORMIN**



**AFTER  
VIGORMIN**



**PATENT APPLICATION: August 2014**

# Vigormin Pilot Plant Inauguration



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