**Lineage 1000**

**Additional Information**

### Economics

(2010 Embraer Lineage 1000)

**HOURLY DIRECT OPERATING COSTS**
- Fuel ($7.13 per gal): $4,876.920
- Maintenance labor (at $30/hour): $153
- Parts, airframe, engine, avionics: $251.31
- Inspections, component overhauls, life-limited parts: $321.18
- Engine restoration: $380
- APU overhaul: $67.36
- Misc. expenses
  - Landing and parking fees: $137.36
  - Crew expenses: $225.23
  - Supplies & catering: $155.75
**TOTAL VARIABLE FUEL COSTS PER HOUR: $8,638.11**

Average speed: 472 knots
- Cost per nautical mile: $15.92

**ANNUAL FIXED OPERATING COSTS**
- Crew salaries (estimates)
  - Captain: $162,000
  - Copilot: $92,000
  - Cabin attendant: $84,000
  - Benefits: $101,400
- Hangar rental (typical): $152,500
- Insurance (insured hull value = $39 million)
  - Hull (0.09% of value): $35,100
  - Single limit liability: $12,500
- Recurrent crew training: $51,800
- Aircraft modernization (avg per year): $33,333
- Navigational chart service: $15,025
- Refurbishing: $179,550
- Computer maintenance program: $700
**TOTAL FIXED COST PER YEAR: $932,658**

**ANNUAL BUDGET—BASED ON 175,000 NM**
(Usage: 420 hours)
- Variable cost: $2,788,006
- Fixed cost: $932,658
**TOTAL FIXED COST (WITHOUT DEPRECIATION): $3,720,664**
- Per hour: $8,959
- Per nautical mile: $21.26
- Per seat nautical mile: $1.12

### Performance

(2010 Embraer Lineage 1000)

**RANGE**
- IFR NBAA 200-nm reserve
  - Seats full: 4,198 nm
  - Ferry range: 4,592 nm

**RATE OF CLIMB**
- 2,464 fpm
  - One engine not operating: 720 fpm

**CRUISE SPEED**
- Max: 472 kt
  - Long range: 455 kt

**SERVICE CEILING**
- Both engines at MTOW: 35,000 ft
- One engine: 23,070 ft

### Specifications

(2010 Embraer Lineage 1000)

**CABIN DIMENSIONS**
- Height: 6.56 ft
- Width: 8.79 ft
- Length: 84.32 ft
- Volume: 3,914 cu ft
- Door height: 5.97 ft
- Door width: 2.56 ft

**BAGGAGE:**
- Internal: 323 cu ft
- External: 120 cu ft

**TYPICAL SEATS CREW/PASSENGERS:** 3/19

**MAXIMUM WEIGHTS**
- Takeoff: 120,152 lb
- Basic operating: 70,844 lb
- Usable fuel: 48,217 lb
- Maximum payload: 9,625 lb
- Payload with full fuel: 0,000 lb

### Lineage 1000 Compared with Other Aircraft

<table>
<thead>
<tr>
<th>Model</th>
<th>First year produced</th>
<th>Variable cost/hour</th>
<th>Seats exec/max</th>
<th>Range (nm)</th>
<th>Normal cruise (kt)</th>
<th>Max takeoff weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineage 1000</td>
<td>2008</td>
<td>$6,638</td>
<td>19/19*</td>
<td>4,554</td>
<td>459</td>
<td>120,152</td>
</tr>
<tr>
<td>ACJ318</td>
<td>2005</td>
<td>$7,894</td>
<td>19/132</td>
<td>3,900</td>
<td>470</td>
<td>145,504</td>
</tr>
<tr>
<td>Global 5000</td>
<td>2004</td>
<td>$5,584</td>
<td>13/19</td>
<td>5,137</td>
<td>488</td>
<td>92,500</td>
</tr>
</tbody>
</table>

Assumptions: Aircraft are 2010 models. Jet fuel $7.13/gal; variable cost: fuel plus maintenance reserves; four passengers; NBAA IFR 200-nm reserves fuel; passenger weight 200 lb includes baggage; two pilots, one cabin attendant.

*Lineage 1000 is modified ERJ190. FAA type certificate limits it to 19 passengers.

Cost source: Conklin & de Decker Life Cycle Cost