The Pilot Profession: Supply, Pay, and a Look Ahead to the Next Contract Cycle

Presented by Captain Hank Ketchum, Chairman
Economic, Financial Analysis and Industry Research Committee

March 2018
SWAPA and EFAIRC

• SWAPA has been the “voice” for the Pilots of Southwest Airlines for 40 years.
• Headquartered in Dallas, we are an independent Association representing 9,200+ Pilots for the nation’s largest domestic airline.
• Economic, Financial Analysis and Industry Research Committee (EFAIRC):
  • Comprised of four pilot members with extensive backgrounds in financial analysis, aviation data, and airline research.
  • Conducts in-depth research in support of the SWAPA Executives, Board of Directors, and the Negotiating Committee.
  • Meets regularly with SWA senior management, Wall Street analysts, and academic researchers.
  • Member of the MIT Global Airline Industry Consortium.
The next negotiating cycle begins in 2020

- **SWAPA’s data driven and analytical approach to negotiations:**
  - **Financial Analytics:** Weigh contract costs vs SWA profitability:
    - Important to our membership that SWA remain profitable through the cycles
    - SWAPA will conduct a comprehensive review of:
      - SWA network performance
      - SWA financial performance:
        - Comparisons of SWA to industry peers
        - Positive impacts of tax reform
        - Fuel hedging results and oil market forecasts
        - Economic performance and GDP forecasts
  - **Polling:** Assess extensive polling data from our membership
  - **Marketplace:** SWA must offer competitive pay and benefits to attract/retain the most talented pilots in the industry
    - Pilot supply will likely be a factor
    - Evaluate results attained by AAL, DAL, and UAL at the bargaining table in 2019
    - Lack of a wide-body career path and a lengthy 10-year upgrade increases expectations for higher pay and stronger work rules
Today’s presentation

• Strong industry financials
• Pilot marketplace
• Historical study of pilot pay covering 25 years
  • Have today’s pay rates kept pace with inflation going back to 1994?
  • As a member of the “Big 4”, have SWA pilots closed the pay gap?
• Industry financials, past to present
• Impacts of bankruptcies, restructuring, and consolidation
• Pilot unit costs and seats per trip (“gauge”)
• Current state of pilot pay heading into the next negotiating cycle
• Conclusions from the study
Southwest has grown from niche carrier to Big 4 in last 25 years

Share of Domestic Mainline Market by ASMs 1993-2017

Note: Market share based on ASMs for non-regional US airlines. Other category includes AQ, DH, JW, KW, PN, QD, QQ, SM, SY, TZ, and X9.
Sources: DOT Form 41, Diio Mi
LUV’s operating margin advantage vs. network legacy carriers

Full Year 2017, Industry Operating Margins (non-GAAP, ex-special items)

<table>
<thead>
<tr>
<th>Company</th>
<th>Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA</td>
<td>18.8%</td>
</tr>
<tr>
<td>ALGT</td>
<td>17.5%</td>
</tr>
<tr>
<td>ALK</td>
<td>17.3%</td>
</tr>
<tr>
<td>LUV</td>
<td>16.3%</td>
</tr>
<tr>
<td>SAVE</td>
<td>15.2%</td>
</tr>
<tr>
<td>JBLU</td>
<td>14.3%</td>
</tr>
<tr>
<td>DAL</td>
<td>14.2%</td>
</tr>
<tr>
<td>AAL</td>
<td>11.4%</td>
</tr>
<tr>
<td>UAL</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Sources: Earnings press releases, SEC filings, and SWAPA analysis

6 - The Pilot Profession: Supply, Pay, and a Look Ahead to the Next Contract Cycle – March 2018
SWA has lowest SLA CASM-ex vs. network and hybrid/LCC carriers

2017 CASM (ex-fuel & special items), stage length adjusted

CASM (cents/ASM)

Southwest: 7.68¢
Alaska: 8.52¢
JetBlue: 8.59¢
Delta: 10.90¢
American: 11.31¢
United: 13.36¢

Notes: 
Carrier data are 'mainline'. Stage length adjusted to 1,000 miles. DL stage length calculated from Q4 2016 – Q3 2017 data, DAL and UAL excludes third-party business expenses.
Sources: 2017 earnings releases, DOT Form 41; Dito Mi
Industry Pilot demand

- We have entered an era of unprecedented demand for Pilots:
  - Strong economy
  - Financially healthy airlines
  - Fleet growth
  - Historically high retirements

- Supply of Pilots is becoming more limited:
  - Regulatory change (1500-hour First Officer rule)
  - High cost of civilian training
  - Military pilots not as plentiful as in past

Sources: RAND Corporation, Air Transport Pilot Supply and Demand, 2015; “Shrinking Pool of Future Pilots Keeps Major Airlines on Edge” Bloomberg June 29 2016; UND study 2015
Regional Airlines
- 15 largest regionals employ approximately 19,000 with a 10-15% attrition rate annually.
- Carriers offering signing/retention bonuses of $7,500 to $50,000 and quality of life enhancements.
- Certain regional airlines offer defined pathways to major partner.

Military
- USAF trains 1,000 pilots a year; looking to increase to 1,600.
- In 2017, USAF declared a "pilot crisis," estimating it was short 2,000 pilots.
- USAF and USN have proposed increased bonuses to stem attrition.

Sources: RAND Corporation, Air Transport Pilot Supply and Demand, 2015; USAF press releases
Current and future pilot marketplace:

- Eight largest airlines will retire more than 35,000 pilots by 2030.
- Major airlines have an estimated total hiring need of 3,000-5,000 annually.
- Total mainline hiring, assuming modest growth rates, could exceed 65,000 by 2030.
Historical pay rates, 1994-2019

Narrow-body Hourly Pay Rates, TOS Captain (1994-2019)


Sources: SWAPA CBAs, SWAPA 30 Year History publication, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
Historical pilot pay study

• 25-year review of narrow-body pay rates at the “Big 4” vs inflation adjusted 1994 NLC rates
  • How do rates today compare to hourly pay at the NLC’s in 1994 (inflation adjusted), a period of lower operating margins and industry profitability?
  • How did pilot pay perform in each year during the 25-year period compared to the benchmark used in the study (benchmark: 1994 NLC inflation adjusted rates)?
  • As the largest domestic carrier and a member of the “Big 4”, have SWA pilots closed the wage gap with their peers at the NLC’s?
How we approached the analysis

• Why start with 1994?
  • 25-year history with last raises being awarded in 2019 under current CBA’s for AAL, DAL and UAL
  • Sustained look at inflationary impacts and how pilot narrow-body pay performed during a “career” cycle
  • AAL, DAL, and UAL had nearly identical rates (within two cents) on 1/1/94, creating an ideal starting point for comparative purposes:

<table>
<thead>
<tr>
<th></th>
<th>American</th>
<th>Delta</th>
<th>United</th>
<th>Southwest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td>MD-80</td>
<td>B727-200</td>
<td>B727-200</td>
<td>B737-300</td>
</tr>
<tr>
<td>Seats</td>
<td>139</td>
<td>146</td>
<td>147</td>
<td>137</td>
</tr>
<tr>
<td>TOS Captain Hourly Pay Rate</td>
<td>$166.12</td>
<td>$166.10</td>
<td>$166.10</td>
<td>$130.87</td>
</tr>
</tbody>
</table>

Sources: APA, DALPA, UALPA, SWAPA CBAs
How we approached the analysis

- Analyzed hourly narrow-body pay rates only for the B737-800, a staple in today's modern fleets, and rates for its predecessor aircraft.

- Did not include varied forms of alternative compensation which distort the core hourly pay rate analysis:
  - Profit sharing
  - Incentives
    - Bonuses, stock options, or ESOP plans
  - Overrides
    - International, ETOPS, red-eye, etc.
  - Wide-body career path with increased pay

- Pay rates, dates, and monthly hours:
  - Used hourly pay rates in effect on January 1 each year for TOS Captain
  - SWA trip-for-pay (tfp) rates converted to hourly pay rates using 1.149:1
  - 82 paid hours per month used in calculations

Note: See Appendix: How we approached the analysis for a more detailed discussion.
Predecessor aircraft to the B737-800 used for hourly pay comparisons:

- **SWA B737-300**
- **UAL B727**
- **DAL B727**
- **AAL MD-80**
- **SWA B737-700**
- **UAL A320**
- **DAL B737-800**
- **AAL B737-800**
- **SWA B737-800**
- **UAL B737-800**
- **DAL B737-800**
- **AAL B737-800**
US average net compensation growth index vs inflation, 1994-2016

Note: Average U.S. Net Compensation (SSA term) CAGR exceeded the rate of inflation by 1.09% from 1994 through 2016.
Sources: SWAPA analysis. Core data used was sourced from the U.S. Social Security Administration website.
LUV vs NLCs (AAL/DAL/UAL): Annual Operating Margins (GAAP), 1994-2017

- **LUV Operating Margin**
- **NLC Operating Margin**
- **LUV Average Operating Margin**
- **NLC Average Operating Margin**

**Note:** Recession data from Federal Reserve Bank of St. Louis (FRED) – Economic Research

**Sources:** DOT Form 41, Diio Mi, Form 10-K (2017), SWAPA analysis
Major events over last 25 years – American Airlines

• 1994-2004
  • Profitable 1995-2000
  • Mild recession followed by September 11th attacks culminated in greater than $6 billion in operating losses. Negative operating margin of 20.9% in 2002.
  • APA pilot contract signed 1997, lasted until 2004, when wage and benefit concessions averaging 23.6% were implemented in return for remaining outside bankruptcy.

• 2005-2013
  • Operating losses over $3 billion in 2008/2009 and debt exceeding $8 billion lead to bankruptcy in Nov 2011.
  • In 2013, emerged from bankruptcy and combined with US Airways, creating the world’s largest airline.
  • Meaningful pay increases for the first time since concessionary agreement of 2003. Pilots received 13.5% equity stake in new company.
  • Pilot defined benefit plan frozen as part of negotiations in 2012.

• 2014-present
  • Strong financial performance included consecutive years of operating profits greater than $5 billion.
  • JCBA signed in Jan 2015, incorporating all American and US Airways pilots. Included raises up to 38% over five years.
  • In Apr 2017, American management offered mid-contract raises to make rates more competitive with DAL and UAL. Average raises equaled 7.0%-8.7% depending on aircraft and seniority.

Note: Reported financials are in accordance with GAAP.
Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix: Notes, note (1).
Sources: (Pay rates) APA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.


May 2003: Concessionary agreement to avoid bankruptcy
Nov 2011: Chap 11 bankruptcy
Nov 2013: Emerged from bankruptcy; US/AA merger becomes official

Wage shortfall 1994-2018 = ($1.05M)
Major events over last 25 years – Delta Airlines

• 1994-2004
  • DALPA negotiated most lucrative pilot contract to date in 2001 (in nominal dollars).
  • 9/11 and subsequent industry downturn lead to record losses and threat of bankruptcy. Pilot wages reductions of 32.5%.

• 2005-2013
  • Filed for bankruptcy in 2005. Pilots defined benefit plan terminated and taken over by PBGC during bankruptcy.
  • Combined operations with Northwest Airlines in 2008.
  • Both sets of pilots agreed on expedited JCBA and seniority list; agreement included 17% pay raises and a 5.88% equity stake in the newly merged company.
  • First full contract in 2012 added 18% additional pay raises and improved work rules.

• 2014-present
  • Double digit operating margins since 2015 and over $20 billion in operating profits since 2014.
  • Investment-grade corporate credit rating.
  • New contract reached Dec 2016 after mediation. Pilots received 18% immediate pay raise and cumulative 28% by 2019.

Note: Reported financials are in accordance with GAAP.
Narrow-body hourly pay rate analysis – Delta Airlines


Actual Hourly Pay Rate
1994 Inflation-Adjusted Hourly Pay Rate (B727-200)

Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix: Notes, note (2).
Sources: (Pay Rates): DALPA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.

Wage shortfall 1994-2018 = ($754K)

Sep 2005: Chap 11 Bankruptcy
Apr 2007: Emerged From bankruptcy
Oct 2008: Merger with Northwest
Major events over last 25 years – United Airlines

• 1994-2004
  • Five profitable years leading up to 2001 with peak operating margin of 8.2% in 1998.
  • Groundbreaking Employee Stock Ownership Plan (ESOP) in 1994 with employees acquiring 55% of company. Pilots funded their portion with a 15.7% pay reduction.
  • Recession, traffic slowdown and 9/11 induced severe financial losses starting in 2001, filed for bankruptcy in 2002.
    • Various concessionary agreements through 2004 results in 43% pay reduction.
  • Pilots Defined Benefit Plan (A Plan) terminated during bankruptcy and taken over by PBGC.

• 2005-2013
  • Exited bankruptcy in 2006. One of the longest and most complex in U.S. history.
  • After two years of profits, United posted a loss in 2008 amid higher oil prices and effects of Great Recession.
    • After start and stop talks, consolidation with Continental Airlines completed in Sep 2010.
  • JCBA signed Dec 2012, raises averaged 43% and included a $400 million lump sum payout.

• 2014-present
  • Profitable since 2014, yet still lags NLC group. Attempting to close the relative “margin gap” with AAL/DAL.
    • Two-year contract extension in Jan 2016, receiving 13% immediate raise and yearly raises thereafter.
  • After Dec 2016 DAL pilot deal, UAL contract provision offering “snap up” to DAL rates goes into effect.

Note: Reported financials are in accordance with GAAP.
Narrow-body hourly pay rate analysis – United Airlines


Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix: Notes, note (3).
Sources: (Pay Rates) UALPA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JIC LLC, and SWAPA analysis.

Actual Hourly Pay Rate 1994 Inflation-Adjusted Hourly Pay Rate (B727-200)

Wage shortfall 1994-2018 = ($1.29M)
Major events over last 25 years – Southwest Airlines

• **1994-2004**
  - Pilots signed 10-year contract with a pay freeze for the first 5 years in return for increased growth and stock options.
  - Aggressive fuel hedging contributed to profits during early 2000s.

• **2005-2013**
  - Pay raise in 2004, coupled with NLC concessionary contracts, made SWA pay rates industry leading starting in 2005.
  - Continued to post small profits through the Great Recession.
  - Acquired AirTran in 2010, gaining slots in congested East Coast airports and international routes. Leased AirTran B-717s to Delta.

• **2014-present**
  - AirTran consolidation completed in 2014.
  - Strong financials, with GAAP operating margins in excess of 16%.
  - Significant fuel hedge losses through 2017.
  - After 4+ years of negotiating, pilots ratified contract in Nov 2016, providing a 15% immediate raise, first 401(k) NEC plan, and strengthened industry-leading scope provisions.

Note: Reported financials are in accordance with GAAP.
Operating margins – Southwest Airlines

LUV: Annual Operating Margins (GAAP), 1994-2017

- Mild Recession: Mar-Nov 2001
- 'Great Recession': Dec 2007 – Jun 2009
- Brent bbl CAGR 1998-2008: 22.5%

Note: Recession data from Federal Reserve Bank of St. Louis (FRED) – Economic Research
Sources: DOT Form 41, Diio MI, Form 10-K (2017), SWAPA analysis
Narrow-body hourly pay rate analysis – Southwest vs. NLCs

### SWA vs. NLCs: TOS Captain Hourly Pay Rates (1994-2019)

<table>
<thead>
<tr>
<th>Year</th>
<th>SWA</th>
<th>NLC: 1994 Inflation-Adjusted Hourly Pay Rate (Smaller Gauge)</th>
<th>NLC: 1994 Inflation-Adjusted Hourly Pay Rate (Larger Gauge)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>$130.87</td>
<td>$130.87</td>
<td>$130.87</td>
</tr>
<tr>
<td>1995</td>
<td>$140.00</td>
<td>$140.00</td>
<td>$140.00</td>
</tr>
<tr>
<td>1996</td>
<td>$156.12</td>
<td>$156.12</td>
<td>$156.12</td>
</tr>
<tr>
<td>1997</td>
<td>$166.11</td>
<td>$166.11</td>
<td>$166.11</td>
</tr>
<tr>
<td>1998</td>
<td>$180.00</td>
<td>$180.00</td>
<td>$180.00</td>
</tr>
<tr>
<td>1999</td>
<td>$200.00</td>
<td>$200.00</td>
<td>$200.00</td>
</tr>
<tr>
<td>2000</td>
<td>$220.00</td>
<td>$220.00</td>
<td>$220.00</td>
</tr>
<tr>
<td>2001</td>
<td>$240.00</td>
<td>$240.00</td>
<td>$240.00</td>
</tr>
<tr>
<td>2002</td>
<td>$260.00</td>
<td>$260.00</td>
<td>$260.00</td>
</tr>
<tr>
<td>2003</td>
<td>$280.00</td>
<td>$280.00</td>
<td>$280.00</td>
</tr>
<tr>
<td>2004</td>
<td>$300.00</td>
<td>$300.00</td>
<td>$300.00</td>
</tr>
<tr>
<td>2005</td>
<td>$320.00</td>
<td>$320.00</td>
<td>$320.00</td>
</tr>
<tr>
<td>2006</td>
<td>$340.00</td>
<td>$340.00</td>
<td>$340.00</td>
</tr>
<tr>
<td>2007</td>
<td>$360.00</td>
<td>$360.00</td>
<td>$360.00</td>
</tr>
<tr>
<td>2008</td>
<td>$380.00</td>
<td>$380.00</td>
<td>$380.00</td>
</tr>
<tr>
<td>2009</td>
<td>$400.00</td>
<td>$400.00</td>
<td>$400.00</td>
</tr>
<tr>
<td>2010</td>
<td>$420.00</td>
<td>$420.00</td>
<td>$420.00</td>
</tr>
<tr>
<td>2011</td>
<td>$440.00</td>
<td>$440.00</td>
<td>$440.00</td>
</tr>
<tr>
<td>2012</td>
<td>$460.00</td>
<td>$460.00</td>
<td>$460.00</td>
</tr>
<tr>
<td>2013</td>
<td>$480.00</td>
<td>$480.00</td>
<td>$480.00</td>
</tr>
<tr>
<td>2014</td>
<td>$500.00</td>
<td>$500.00</td>
<td>$500.00</td>
</tr>
<tr>
<td>2015</td>
<td>$520.00</td>
<td>$520.00</td>
<td>$520.00</td>
</tr>
<tr>
<td>2016</td>
<td>$540.00</td>
<td>$540.00</td>
<td>$540.00</td>
</tr>
<tr>
<td>2017</td>
<td>$560.00</td>
<td>$560.00</td>
<td>$560.00</td>
</tr>
<tr>
<td>2018</td>
<td>$580.00</td>
<td>$580.00</td>
<td>$580.00</td>
</tr>
<tr>
<td>2019</td>
<td>$600.00</td>
<td>$600.00</td>
<td>$600.00</td>
</tr>
</tbody>
</table>

### Wage Shortfall

1994-2018 = $834K

### May 2011: Merger with AirTran

### March 2012:
- B737-800 delivered

Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix: Notes, note (4).
Sources: (Pay rates) SWAPA CBAs, SWAPA 30 Year History publication, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
<table>
<thead>
<tr>
<th></th>
<th>American</th>
<th>Delta</th>
<th>United</th>
<th>Southwest*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Nominal&quot; Dollars</td>
<td>Constant &quot;Real&quot; 2018 Dollars</td>
<td>&quot;Nominal&quot; Dollars</td>
<td>Constant &quot;Real&quot; 2018 Dollars</td>
</tr>
<tr>
<td><strong>1994: TOS Captain Hourly Pay Rate</strong></td>
<td>$166.12</td>
<td>$281.64</td>
<td>$166.10</td>
<td>$281.61</td>
</tr>
<tr>
<td><strong>“ACTUAL” wages:</strong> (82 paid hours/month) 1994-2018</td>
<td>$4.45M</td>
<td>$5.68M</td>
<td>$4.75M</td>
<td>$6.07M</td>
</tr>
<tr>
<td><strong>“ILLUSTRATIVE” wages,</strong> (assumes annual inflation-based raises 1994 NLC rates): 1994-2018</td>
<td>$5.50M</td>
<td>$6.93M</td>
<td>$5.50M</td>
<td>$6.93M</td>
</tr>
<tr>
<td><strong>Wage SHORTFALL:</strong> “Actual” Less “Illustrative”**: 1994-2018</td>
<td>($1.05M)</td>
<td>($1.25M)</td>
<td>($0.75M)</td>
<td>($0.86M)</td>
</tr>
</tbody>
</table>

Notes: Annual hourly rates shown as of January 1 each year. 1994 TOS Captain hourly pay rate: AAL MD-80, DAL/UAL B727, SWA B737-300. * For additional notes, see Appendix: Notes, notes (1) through (4). Sources: (Pay Rates) SWAPA CBAs, SWAPA 30 Year History publication, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
Pilot ‘wage’ CASM defined

• Pilot ‘wage’ CASM over the last 25 years
  • Creates ability to analyze the wage component of pilot costs only, the subject of the study
  • Defined as the sum of four DOT Form 41 accounts reported quarterly
    • Form 41, Table 5.2, Flying Operations
      • Pilots & Copilots (51230),
      • Trainees & Instructors (51281)
      • Taxes-Payroll (51680)
      • And for B-727, Other (51240)
    • Divided by ASMs (as reported in Table T2)
  • Does NOT include:
    • Employee Benefits and Pensions (51570)
    • Personnel Expenses (51360) – per diem, hotel expenses, etc.
  • We did NOT adjust for stage length
Note: “Wage” CASM includes Form 41, Table 5.2, Flying Operations, sub-accounts: Pilots & Copilots (51230), Other (51240) [for B727-200], Trainees & Instructors (51281), and Taxes-Payroll (51680). CASM is NOT stage-length adjusted. Inflation adjustment uses CPI-U (January 2018 constant dollars); 2017 data is through Q3. Included fleet types are non-regional jet, narrow-body aircraft, excluding B757-300.

Sources: DOT Form 41, Dlio Mi, SWAPA analysis
Growth of gauge, 1994-2017

Average Seats per Departure
Narrow-body mainline fleets, total system, including B757-200 (domestic)

Note: Data for 2017 is through Q3.
Sources: DOT Form 41, Diio Mi, SWAPA analysis
• Big 4 Pilot ‘wage’ CASM during a turbulent 25 years is 4.7% lower on an inflation-adjusted basis since 1994.

• Airline restructuring, consolidation, and resulting strong cash flows have led to fleet renewals and steady increases in gauge.

• Big 4 narrow-body seats per trip (gauge) have increased 11.5% since 1994.

Note: Mainline narrow-body fleets, excluding B757-300
## Industry pay rate comparison - 2019

### B737-800 TOS Captain Hourly Pay Rate Comparison (Rates as of 1/1/19)

<table>
<thead>
<tr>
<th>Airline</th>
<th>Equipment</th>
<th>2019 rate</th>
<th>$ behind Delta</th>
<th>% behind Delta</th>
<th>% raise to match Delta</th>
<th>Raise Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta</td>
<td>B737-700/800</td>
<td>$284.01</td>
<td></td>
<td></td>
<td></td>
<td>1/1</td>
<td>Delta has a higher B737-900 rate</td>
</tr>
<tr>
<td>United</td>
<td>B737-800</td>
<td>$283.22</td>
<td>($0.79)</td>
<td>(0.3%)</td>
<td>0.3%</td>
<td>1/1</td>
<td></td>
</tr>
<tr>
<td>American</td>
<td>B737-800</td>
<td>$278.77</td>
<td>($5.24)</td>
<td>(1.8%)</td>
<td>1.9%</td>
<td>1/1</td>
<td>Group II rate</td>
</tr>
<tr>
<td>Southwest</td>
<td>B737-700/800</td>
<td>$266.04</td>
<td>($17.97)</td>
<td>(6.3%)</td>
<td>6.8%</td>
<td>9/1</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Hourly rates shown do not include applicable ETOPS and/or international overrides. Used tfp-to-hourly rate conversion factor of 1.149 for SWA rates.

**Sources:** Airline CBAs
## Pay rate overview vs. inflation

<table>
<thead>
<tr>
<th></th>
<th>American</th>
<th>Delta</th>
<th>United</th>
<th>Southwest 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 B737-800, TOS Captain, Hourly Pay Rate (Actual)</td>
<td>$278.77</td>
<td>$284.01</td>
<td>$283.22</td>
<td>$266.04</td>
</tr>
<tr>
<td>1994 NLC Equivalent Inflation-Adjusted Rate To 2019 (Est.) 2</td>
<td>$287.90</td>
<td>$287.87</td>
<td>$287.87</td>
<td>$287.88</td>
</tr>
<tr>
<td>2019 Actual Rate vs 1994 Equivalent Rate Deficit</td>
<td>($9.13)</td>
<td>($3.86)</td>
<td>($4.65)</td>
<td>($21.84)</td>
</tr>
<tr>
<td>2019 Additional Rate Increase Required To Reach 1994 NLC Equivalent Rate</td>
<td>3.3%</td>
<td>1.4%</td>
<td>1.6%</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

### Contract Amendable Dates

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Opener</td>
<td>1/1/2019</td>
<td>1/1/2019</td>
<td>270 Days</td>
<td>3/1/2020</td>
</tr>
<tr>
<td>Last Raise Date</td>
<td>1/1/2019</td>
<td>1/1/2019</td>
<td>1/1/2019</td>
<td>9/1/2020</td>
</tr>
</tbody>
</table>

### CPI-U CAGR

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 1994 thru Jan 2018 (24 Years)</td>
<td></td>
<td></td>
<td></td>
<td>2.2%</td>
</tr>
<tr>
<td>50 Year CPI-U CAGR (Jan 1968 thru Jan 2018)</td>
<td></td>
<td></td>
<td></td>
<td>4.0%</td>
</tr>
</tbody>
</table>

---

**Note:**
1. SWA tfp rates converted using a tfp-to-hourly rate conversion factor of 1.149:1.
2. Applied the 24 year CPI-U CAGR of 2.22% to the period 1/1/18 to 1/1/19 to derive the 2019 equivalent inflation adjusted rate.

**Sources:** Airline CBAs and SWAPA analysis
Conclusions from 25-year historical pilot pay study

- Pilots at the NLCs encountered significant reductions in “real income” due to wages falling below the 1994 inflation-adjusted rate for a sustained period.
- Pay rates at the NLCs are close to reaching the 1994 inflation-adjusted rate, but earnings shortfalls remain from the past.
- Southwest is the largest domestic airline and generates the strongest margins of the “Big 4”. SWA’s pilot wage gap has narrowed compared to the NLC’s 1994 inflation-adjusted rate, but still lags behind these three carriers and the benchmark used in the study.
- Southwest TOS Captain “actual” cumulative wages (using 82 hours per month) over the 25 year period were comparable to those at the NLCs, but a pay gap now exists as a result of pattern bargaining.
- Up-gauging of fleets has had a positive impact upon industry pilot unit costs.
Appendix: How we approached the analysis

- B737-800 rates are the current benchmark for SWAPA as the aircraft is a major component in each of the “Big 4” narrow-body fleets.
  - Evaluated hourly pay rates for the predecessor aircraft which were replaced by and/or comparable to the B737-800.
    - The B727 and MD-80 aircraft were the predecessors to the B737-800 & B737-MAX8 being used in today’s modern fleets.
    - The A320 is a comparable aircraft to the B737-800 and was used in the study when a carrier lacked the B737-800 in its fleet.
  - Seats per trip (“gauge”) have increased significantly with fleet renewal and growth during this decade as the industry has returned to profitability.
    - The B737-800 has fueled the growth in “gauge” at SWA.
Appendix - How we approached the analysis

• Analyzed hourly narrow-body pay rates only as pay rates have a direct and consistent impact upon the income statement
  • Study focused squarely on “guaranteed” hourly pay
  • Profit sharing is variably dependent upon levels of profitability and “at risk” with different purposes and justifications
    • SWA’s profit sharing plan was implemented primarily as a retirement vehicle in lieu of DB or DC plans at Network Legacy Carriers
    • SWA had an insufficient 401(k) match which was supplemented by the profit sharing plan for many years
• Incentives were not included in the study:
  • Bonuses
  • Stock options had results which varied greatly based upon population and investment decisions
  • ESOP plans (i.e. UAL)
• Overrides were not included (i.e. international, ETOPS, red-eye, etc.)
• Wide-body hourly pay rates and career progression were not evaluated as the study focused on narrow-body equipment
Appendix: How we approached the analysis

- **Wage vs. inflation calculation (NLCs):** Calculated the difference between actual hourly pay rates and the 1994 NLC rates adjusted annually for inflation to 2019
  - 1994 hourly pay rates (AAL: MD-80) and (DAL/UAL: B727) were adjusted for inflation each year using the CPI-U to include 2019 (used the CPI-U CAGR January 1994 - 2018 of 2.22% for January 2019).
  - For each year, we computed the difference between the actual hourly pay rate and the 1994 NLC inflation-adjusted rate (equipment dependent) and multiplied the result by 82 hours/month times 12 months.
  - Then we added the annual results to compute the cumulative wage differential for the 25-year period.

- **Wage vs inflation calculation (SWA):** Applied the same methodology utilized in the wage vs. inflation calculation (NLCs), with the following exceptions:
  - Step adjustments were applied to determine a wage vs. inflation result between SWA and the inflation-adjusted 1994 NLC rates. SWA had a negative wage gap to the NLCs in 1994, the starting year for the study, as the SWA rates were below the NLC average rates for the B737-300 (smaller gauge) and the B727/MD-80 (larger gauge).
  - Applied a “step” adjustment to determine the NLC inflation-adjusted rate due to the lack of a B737-800 equivalent aircraft 1994 thru 2011:
    - Step 2 (2012-2019, B737-800 in SWA fleet): Average 1994 DAL/UAL B727 & AAL MD-80 inflation-adjusted hourly rate
### Appendix: Equipment and gauge, 1994

<table>
<thead>
<tr>
<th></th>
<th>American</th>
<th>Delta</th>
<th>United</th>
<th>Southwest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1994 Equipment</strong></td>
<td>MD-80</td>
<td>B727</td>
<td>B727</td>
<td>B737-300</td>
</tr>
<tr>
<td><strong>Seats per Trip, “Gauge”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994 Equipment used in study</td>
<td>139</td>
<td>146</td>
<td>147</td>
<td>137</td>
</tr>
<tr>
<td><strong>Seats per Trip, “Gauge”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994: B737-300</td>
<td>126</td>
<td>126</td>
<td></td>
<td>137</td>
</tr>
<tr>
<td><strong>Equipment Transitions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>over 25 Years</td>
<td>B737-800</td>
<td>B737-800</td>
<td>A320 to B737-800</td>
<td>B737-700 to B737-800</td>
</tr>
<tr>
<td><strong>Seats per Trip, “Gauge”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018: B737-800</td>
<td>160</td>
<td>160</td>
<td>165</td>
<td>175</td>
</tr>
</tbody>
</table>

Source: Diio Mi.
Appendix: Operating margins – American Airlines

AAL: Annual Operating Margins (GAAP), 1994-2017

Mild Recession: Mar-Nov 2001

'Great Recession': Dec 2007 – Jun 2009

Brent bbl CAGR

1998-2008: 22.5%

Operating Margin  –  Average Operating Margin

Note: Recession data from Federal Reserve Bank of St. Louis (FRED) – Economic Research
Sources: DOT Form 41, Diio Mi, Form 10-K (2017), SWAPA analysis
Appendix: Narrow-body hourly pay rate analysis – American Airlines

(2018 constant dollars)

Wage shortfall 1994-2018 = ($1.25M) (2018 constant dollars)

Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix – Notes: note (1).
Sources: (Pay rates) APA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
Appendix: Operating margins – Delta Airlines

DAL: Annual Operating Margins (GAAP), 1994-2017

Mild Recession: Mar-Nov 2001
Brent bbl CAGR 1998-2008: 22.5%

Note: Recession data from Federal Reserve Bank of St. Louis (FRED) – Economic Research
Sources: DOT Form 41, Diio Mi, Form 10-K (2017), SWAPA analysis
Appendix: Narrow-body hourly pay rate analysis – Delta Airlines

(2018 constant dollars)

Actual Hourly Pay Rate (2018 constant dollars)

1994 Inflation-Adjusted Hourly Pay Rate (B727-200, 2018 constant dollars)


Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix – Notes: note (2).
Sources: (Pay Rates): DALPA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
Appendix: Operating margins – United Airlines

UAL: Annual Operating Margins (GAAP), 1994-2017

Mild Recession: Mar-Nov 2001
'Great Recession': Dec 2007 – Jun 2009

- Operating Margin
- Average Operating Margin

Note: Recession data from Federal Reserve Bank of St. Louis (FRED) – Economic Research
Sources: DOT Form 41, Diio Mi, Form 10-K (2017), SWAPA analysis
Appendix: Narrow-body hourly pay rate analysis – United Airlines

(2018 constant dollars)

Wage shortfall 1994-2018 = ($1.58M) (2018 constant dollars)

Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix – Notes: note (3).
Sources: (Pay Rates) UALPA CBAs, Aviation Information Resources Inc., Career Pilot Magazine, JIC LLC, and SWAPA analysis.
Appendix: Narrow-body hourly pay rate analysis – Southwest vs. NLCs

SWA vs. NLCs: TOS Captain Hourly Pay Rates (1994-2019)
(2018 constant dollars)

Wage shortfall 1994-2018 = ($1.08M) (2018 constant dollars)

Notes: Annual hourly rates shown as of January 1 each year. For additional notes, see Appendix: Notes, note (4).
Sources: (Pay rates) SWAPA CBAs, SWAPA 30 Year History publication, Aviation Information Resources Inc., Career Pilot Magazine, JJC LLC, and SWAPA analysis.
Appendix: Profit sharing, 2010-2017

- Profit sharing plans were not considered in our analysis since we analyzed hard pay rates only, not "at risk" compensation.
- The SWA profit sharing plan is a retirement plan and was the primary retirement vehicle for pilots for many years.
  - SWA Pilots received a sub-industry standard 401(k) match of 6.3% (1994), 7.3% (1995-2008), 7.8% (2009), and 9.3% (2010-2016). The average payout percentage for SWA profit sharing from 1994-2017 was 8.6%.
- As airlines returned to profitability in 2010, Pilots would have received the profit sharing payouts shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>American</th>
<th>Delta</th>
<th>United</th>
<th>Southwest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Profit Sharing</td>
<td>$11,684</td>
<td>$208,579</td>
<td>$103,427</td>
<td>$150,203</td>
</tr>
<tr>
<td>(Nominal $’s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Profit sharing based on 82 hours/month for TOS CA flying equipment represented in the pay study: AAL/DAL: B737-800, UAL: A320/B737-800, SWA: B737-700/800. AAL had 1.5% profit sharing in 2013, but not received by Pilots as part of a negotiated settlement.

Source: SWAPA analysis
Appendix: Notes

• Note (1) Narrow-body hourly pay rate analysis – American Airlines (nominal and constant dollar charts)
  • Inflation adjustments are applied to 1994 hourly pay rate for MD-80 (red line) and use CPI-U and 2019 inflation adjusted rate estimated using CPI-U CAGR (1994-2018) of 2.22%. Actual hourly pay rates (blue line): MD-80 (1994-1998) and B737-800 (1999-2019). Earnings “shortfall” calculated as difference between actual hourly rate (blue line, each year shown) and inflation adjusted 1994 MD-80 rate (red line, each year shown), multiplied by 82 hours per month times 12 months.

• Note (2) Narrow-body hourly pay rate analysis – Delta Airlines (nominal and constant dollar charts)
  • Inflation adjustments are applied to 1994 hourly pay rate for B727-200 (red line) and use CPI-U and 2019 inflation adjusted rate estimated using CPI-U CAGR (1994-2018) of 2.22%. Actual Hourly Pay Rates (blue line): B727-200 (1994-1998) and B737-800 (1999-2019). Earnings “shortfall” calculated as difference between actual hourly rate (blue line, each year shown), and inflation adjusted 1994 B727-200 rate (red line, each year shown), multiplied by 82 hours per month times 12 months.

• Note (3) Narrow-body hourly pay rate analysis – United Airlines (nominal and constant dollar charts)
  • Inflation adjustments are applied to 1994 hourly pay rate for B727-200 (red line) and use CPI-U and 2019 inflation adjusted rate estimated using CPI-U CAGR (1994-2018) of 2.22%. Actual Hourly Pay Rates (blue line): B727-200 (1994-1998), A320 (1999-2012), and B737-800 (2013–2019). Earnings “shortfall” calculated as difference between actual hourly rate (blue line, each year shown), and inflation adjusted 1994 B727-200 rate (red line, each year shown), multiplied by 82 hours per month times 12 months.

• Note (4) Narrow-body hourly pay rate analysis – Southwest vs. NLC (nominal and constant dollar charts)
  • Inflation adjustments are applied to 1994 hourly pay rate for average DAL/UAL B727-200 & AAL MD-80 (larger gauge, red line) and use CPI-U and 2019 inflation adjusted rate estimated using CPI-U CAGR (1994-2018) of 2.22%. Inflation adjustments are applied to 1994 hourly pay rate for average AAL/DAL/UAL B737-300 (smaller gauge, dashed red line). Actual Hourly Pay Rates (blue line): B737 (1994-2019). Wage shortfall calculated as difference between actual hourly rate (blue line, each year shown), and inflation adjusted 1994 average AAL/DAL/UAL B737-300 rate (dashed red line, 1994-2011) plus inflation adjusted 1994 average DAL/UAL B727-200 & AAL MD-80 (red line, 2012-2019, transitions in 2012 due to delivery of B737-800), multiplied by 82 hours per month times 12 months. SWA paid a ratification bonus (RB) in 2016. The study focused on hard hourly pay rates only. The impact of the RB would have resulted in a reduction of $46,734 (current "nominal" dollars) and $47,979 (constant "real" dollars) in the SWA wage shortfall had bonuses been considered. SWA trips-for-pay (tfp) converted to hourly pay using a 1.149 tfp-to-hourly pay conversion rate.
The Pilot Profession: Supply, Pay, and a Look Ahead To The Next Contract Cycle