RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Mark R. Hopkins ( CN=Mark R. Hopkins/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:21-OCT-1997 12:59:53.00

SUBJECT: Re: Alleged U.N. report on trade and growing income inequality

TO: Lael Brainard ( CN=Lael Brainard/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Lael,

My guess would be UNCTAD -- I sent an email to them, but it's night, so I'll try calling in the morning. I'll see if I can find somebody knowledgable in New York. I tried contacting the AFL-CIO, but no luck so far. It appears as though the whole organization goes out for lunch at the same time. I'll contact you when I find the answer.

Mark

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: spring-charles@dol.gov@INET@LNGTWY ( spring-charles@dol.gov@INET@LNGTWY [ U

CREATION DATE/TIME:12-DEC-1997 17:20:42.00

SUBJECT: ILO Convention 87

TO: Lael Brainard@EOP ( Lael Brainard@EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Lael, attached are two documents which may be helpful in explaining our ratification process and the status of the core labor standards. The one labelled "hrreport" was our initial response to the ILO on the status of ratification. It was submitted in late 1995. The other report labelled "fundcon" was our follow-up sent earlier this year. The only update from that would be that Convention 111 is now at the White House. (Convention 144 (which the US ratified and is referenced several times in the documents) concerns our obligation to consult with our tripartite partners in setting labor policy.)

The major issue with Convention 87, which all three parties (AFL-CIO, USCIB, and USGovt) agree with, is the prohibition of the right to strike for certain employees (Federal and State and Local Govt). Since we have not undertaken a thorough analysis of the obstacles from a government perspective, I hesitate to state any other obstacles now. The AFL-CIO and USCIB each have their own views as to what the issues are with Convention 87. Some are technical and some are political, as I mentioned on the phone.

If this material is for a briefing to respond to the AFL-CIO, we need to be careful in delineating the stumbling blocks without a thorough review, because the AFL-CIO is an integral part of our ratification process. We don't want to set ourselves up to get bitten later.

Further, the ILO's Committee on Freedom of Association hears complaints against governments for their failure to implement the principles of Convention 87. All members of the ILO are subject to complaints whether or not they have ratified Convention 87. Thus, the US is subject to review of our implementation of the "principles" of Freedom of Association. There have been some 10 cases against the US filed by the AFL-CIO including, most notably, the firing of PATCO members, and the use of replacement workers for economic strikers. Generally, the ILO has found that our laws are in compliance.

In summary, however, there is no reason why the White House shouldn't tell the AFL-CIO that it will ask the Secretary of Labor, as Chair of the President's Committee on the ILO, to move Convention 87 to a top priority for ratification review by the Tripartite Advisory Panel on International Labor Standards (TAPILS). At the same time, the White House should impress on the AFL-CIO the tripartite nature of our ILO membership and encourage them to support the Administration in the TAPILS ratification process.

Just a note for your reference regarding the other core labor standards: in DOL, we are undertaking an effort to get a review of Convention 138 on Child Labor back on the TAPILS agenda; there will be discussions at the June ILO Conference on a new Convention on exploitative forms of child labor; and we would like to take another

look at Convention 29 on prison labor.

I have attached the documents here and also faxed them to you. If you need any further information, please call me or Julie Misner on 219-7682. While Andrew is on the road until December 19, we can get messages to him and ask him to call you if you want. Thanks.

[[ HRREPORT : 5419 in WINMAIL.DAT ]][[ FUNDCON : 5420 in WINMAIL.DAT ]]
==========  ATTACHMENT  1  ==========
ATT CREATION TIME/DATE:  0 00:00:00.00

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========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
RFC-822-headers:
Received: from conversion.pmdf.eop.gov by PMDF.EOP.GOV (PMDF V5.0-4 #6879)
id <01IR3C9KP1S001183Y@PMDF.EOP.GOV> for Brainard_L@a1.eop.gov; Fri,
12 Dec 1997 16:11:36 -0500 (EST)
Received: from storm.eop.gov (storm.eop.gov)
by PMDF.EOP.GOV (PMDF V5.0-4 #6879) id <01IR3C9GY0O0014KEI@PMDF.EOP.GOV> for
Brainard_L@a1.eop.gov; Fri, 12 Dec 1997 16:11:32 -0500 (EST)
Received: from dol.gov ([166.96.254.1]) by STORM.EOP.GOV (PMDF V5.1-7 #6879)

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 with SMTP id <01IR3C8RUHSM003ZMU@STORM.EOP.GOV> for Brainard_L@a1.eop.gov;
 Fri, 12 Dec 1997 16:11:11 -0500 (EST)
Received: by dol.gov (5.x/SMI-SVR4) id AA22483; Fri, 12 Dec 1997 16:09:00 -0500

Received: from unknown(166.96.250.73) by gatekeeper via smap (V1.3)
 id sma021519; Fri Dec 12 16:07:26 1997
Received: by esfpb03.dol.gov with SMTP
 (Microsoft Exchange Server Internet Mail Connector Version 4.0.995.52)
 id <01BD0718.EA48EFE0@esfpb03.dol.gov>; Fri, 12 Dec 1997 16:13:42 -0500
X-Mailer: Microsoft Exchange Server Internet Mail Connector Version 4.0.995.52

X-Ms-Tnef-Correlator:
 <c=US%a=_%p=DOL%l=ESFPB03-971212211341Z-16482@esfpb03.dol.gov>
================== END ATTACHMENT   2 ==================
```

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rebecca M. Blank ( CN=Rebecca M. Blank/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME: 6-MAR-1998 18:13:18.00

SUBJECT: Meeting re Minimum Wage

TO: Lisa D. Branch ( CN=Lisa D. Branch/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Francine P. Obermiller ( CN=Francine P. Obermiller/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Please put on my calendar for Monday. Thanks.

---------- Forwarded by Rebecca M. Blank/CEA/EOP on 03/06/98
06:12 PM ----------

Alice H. Williams
03/06/98 05:05:50 PM
Record Type: Record

To: Rebecca M. Blank/CEA/EOP
cc: Lisa D. Branch/CEA/EOP, Francine P. Obermiller/CEA/EOP
Subject:Meeting re Minimum Wage

Tom Palley, AFL-CIO is meeting with Janet on Monday, March 9 at 11:00 a.m. to talk about Minimum Wage. He requested this meeting. This is for your information just in case you would like to sit in. He did not indicate that he was bringing anyone with him.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Michele Jolin ( CN=Michele Jolin/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME: 5-NOV-1998 17:04:15.00

SUBJECT: Meeting w/ AFL-CIO

TO: Joseph E. Aldy ( CN=Joseph E. Aldy/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Janet L. Yellen ( CN=Janet L. Yellen/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
I have scheduled a meeting w/ Janet and Joe and representatives of the AFL-CIO on Monday, November 23 at 11AM to discuss the economic impact of climate change and the Administration's economic analysis. I will schedule a pre-brief w/ Karen and Todd for that morning before the meeting.

---------- Forwarded by Michele Jolin/CEA/EOP on 11/05/98 05:00 PM ----------

Karen Tramontano
11/02/98 11:36:25 AM
Record Type: Record

To: Michele Jolin/CEA/EOP
cc:
bcc:
Subject: Re: Meeting w/ Janet Yellen

The timing is fine -- i'd rather have janet and staff in the meeting rather than one or the other --i think we can counter-act any delay concerns if we can call them w/ dates this week --thanks

Michele Jolin
11/02/98 09:07:02 AM

Record Type: Record

To: Karen Tramontano/WHO/EOP
cc:
bcc:
Subject: Re: Meeting w/ Janet Yellen

Happy to schedule this. But, one problem in the short-term: our key staff person -- who did the Administration's economic analysis and knows the models -- is in Buenos Aires for the climate change talks this week and next week. Then Janet is supposed to go to Japan the week of Nov 16. That would mean to get both of them in the room the meeting couldn't take place until Nov 23. We could do the meeting w/out our

staff guy if you think it is necessary to schedule quickly. But it would be better to have him there. Let me know what you think about timing.
Thanks.
Michele

Karen Tramontano
10/31/98 11:07:38 AM
Record Type: Record

To: Michele Jolin/CEA/EOP
cc: Todd Stern/WHO/EOP, Jonathan H. Adashek/WHO/EOP
Subject: Meeting w/ Janet Yellen

About 3-4 weeks ago, Todd held a principals meeting w/ labor leaders to discuss next steps -- essentially there were 3 1/2.

1--electricity deregulation -- which you don't need to worry about
2. short/long term issues re: coal --which you don;t need to worry about
3. transition --

before we put a meeting together re: transition -- which would involve cea and janet -- labor economists would like to meet w/ janet and her team to discuss economic impact, models etc.
they would like to bring in their top 4 -5 economics for a thorough discussion of the issue so the transition discussion does not get bogged down w/ a discussion of the dispute about economic impact --

can we talk monday --- so we can scheduled this discussion -- i will try to remember to mention to janet in senior staff meeting, too. thanks

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Michele Jolin ( CN=Michele Jolin/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:13-NOV-1998 13:12:17.00

SUBJECT: Meeting on Nov 23

TO: Alice H. Williams ( CN=Alice H. Williams/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Next week, would you please call Todd Stern's office and Karen Tramontano's office and see whether they can do a pre-brief for the AFL-CIO meeting with Janet in her office at 10:30 AM?
I put it on Janet's schedule and I e-mailed Todd and Karen, but I have not heard back from them.
So if you could call them next week and confirm that this works, I'd appreciate it!

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: John D. Gibson ( CN=John D. Gibson/OU=WHCCTF/O=EOP [ WHCCTF ] )

CREATION DATE/TIME:16-FEB-1999 18:18:07.00

SUBJECT: coal

TO: Joseph E. Aldy ( CN=Joseph E. Aldy/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Joe,
I'm preparing some talking points for Podesta's meeting w/AFL-CIO on Thursday and I'm trying to put together something on coal. I've been directed to you to find out what our economic analysis says about coal and employment, etc. Can you give me a call and share your thoughts? I need to get something to Todd fairly early in the day tomorrow. Appreciate your help.

-- John

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph E. Aldy ( CN=Joseph E. Aldy/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:16-FEB-1999 18:45:16.00

SUBJECT: Re: coal

TO: John D. Gibson ( CN=John D. Gibson/OU=WHCCTF/O=EOP @ EOP [ WHCCTF ] )
READ:UNKNOWN

TEXT:
John,

Attached is a 3-pager we pulled together for the interagency process on coal, trends in employment, and implications of various permit prices. I have to leave soon, but give me a call at home later tonight (202-328-1126) or in the morning (x51455) if you want to discuss this further.

Joe

John D. Gibson
02/16/99 06:17:37 PM
Record Type: Record

To: Joseph E. Aldy/CEA/EOP
cc:
Subject:coal

Joe,
I'm preparing some talking points for Podesta's meeting w/AFL-CIO on Thursday and I'm trying to put together something on coal. I've been directed to you to find out what our economic analysis says about coal and employment, etc. Can you give me a call and share your thoughts? I need to get something to Todd fairly early in the day tomorrow. Appreciate your help.

-- John

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D30]MAIL47535505C.036 to ASCII,
The following is a HEX DUMP:

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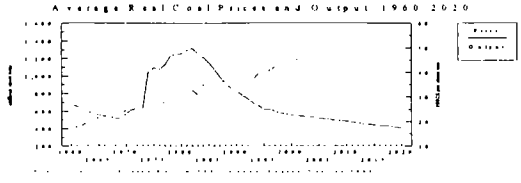
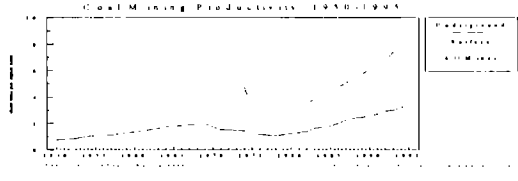
**Employment in the Coal Industry**

Efforts to address climate change are likely to provide incentives to the private sector to consume energy-efficient and less greenhouse gas intensive products. In terms of energy use, fossil fuels that produce relatively large amounts of carbon dioxide from combustion (such as coal) will become less economically attractive than fuels that produce lower amounts of greenhouse gases (such as natural gas and renewables). The necessity of shifting away from coal use has spurred some criticism that the Kyoto Protocol will result in significant job losses in the coal industry. This paper provides a review of the trends in this industry and summarizes employment effects portrayed in some of the existing modeling analyses.



*Overview of the Coal Industry*

The coal industry has experienced substantial productivity gains over the past half-century. While coal prices climbed significantly during the energy crisis of the 1970s, prices in real terms have now declined to nearly the lowest levels experienced over the past 40 years, and are forecast to decline even further under business as usual projections through 2020.



Much of the decline in coal prices reflects improvements in productivity (measured by tons of coal produced per hour of labor). Since the decline in productivity of the mid-1970s, coal mining productivity has improved at an astounding 7% rate per year. Surface mining operations, which tend to be more prevalent in the west, have much higher absolute levels of productivity while underground mining operations have experienced slightly faster rates of productivity *growth* over the past 15 years. Surface coal miners were 2.6 times and underground miners were 2.8 times more productive in 1995 than they were in 1980.

While mining employment increased in response to increased demand for coal during the 1970s energy crisis, the last two decades have witnessed a steady decline in employment. Current mining employment is one-third of its peak in 1978 of 245,000. However, overall coal production has tended to increase as gains in productivity have outpaced the decline in employment. Since 1980, mining employment has declined at an average rate of 6.1% per year, while production has increased by an average of 1.6% per year. By 2010, coal mining employment under a continuation of current policies (the "business as usual" case) is projected to be about 62,000, reflecting an average 2.1% annual rate of decline between 1996 and 2010. Some have claimed that the faster average annual rate of decline (7.3%) in the 1990s reflects the effects of Clean Air Act rules, such as the limits on $SO_2$ emissions and the $SO_2$ trading program

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(which have spurred the development of lower-sulfur western surface coal at the expense of higher-sulfur eastern underground coal).

*Overview of Modeling Analyses*

The model used by the Administration to illustrate the economic effects of the Administration's climate change policies, the Second Generation Model, is a long-run economic model that assumes no aggregate employment impacts (because the model assumes that the economy is in equilibrium, which implies that demand for labor exactly equals supply). Indeed, most of the models in the Stanford Energy Modeling Forum exercise and the OECD model comparison effort are similar long-run (general equilibrium) economic models that assume no aggregate employment impacts. While this is an appropriate assumption for small energy price increases over a long time horizon, it cannot provide information on short-term employment effects in any particular industry, such as the coal industry. However, short-run economic models, such as the macroeconomic model constructed by DRI, can provide information about industry-specific employment effects. While some have expressed concern about using these short-run models to evaluate time periods as long as 10 to 20 years, we provide two sets of results that describe the potential range of employment effects in the coal mining industry. These results are based on the same macroeconomic model, but incorporate different estimated permit prices -- two lower ones from the Administration's analysis and a higher one from an analysis commissioned by the United Mine Workers.

The United Mine Workers commissioned a study using the DRI macroeconomic model to evaluate the economic effects of abating carbon dioxide emissions. This study analyzed three separate scenarios, but provided detailed results on only the middle scenario. This more detailed analysis assumes that 58 percent of the reductions from the "business as usual" projection necessary for the United States to meet its Kyoto Protocol target will be achieved from the domestic energy sector, generating an estimated 2010 permit price of $113/ton of carbon equivalent. Alternatively, the Environmental Protection Agency used the DRI macroeconomic model to assess the economic effects associated with permit prices of $14 and $23/ton of carbon equivalent.

| **Coal Mining Industry** | **$14/ton (EPA)** | **$23/ton (EPA)** | **$113/ton (UMW)** |
|---|---|---|---|
| Employment Losses | 3,470 | 6,750 | 28,740 |
| Employment Losses (% below 2010 BAU) | 5.1% | 9.9% | 36.1% |
| 2010 BAU Employment Level | 68,200 | 68,200 | 79,550 |

Note: EIA projects 2010 BAU employment in the coal mining industry to be 62,190.
As shown in the table, higher permit prices rise lead to larger employment loss in the coal sector. The employment losses with permit prices of $14 to $23/ton are projected to be in the range of 5

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to 10% of BAU employment in the coal industry in 2010. It is interesting to note that the variation in estimates of BAU employment range from a low of 62,190 by EIA to a high of 79,550 by UMW, a range of 28%. Given the large variation in "business as usual" employment projections for 2010, employment changes projected in the 5-10 percent range could be considered small to negligible.

*Minimizing Employment Losses*

The models indicate that the key to minimizing coal mining industry dislocation is to limit the amount of emissions reductions that occur in the domestic energy sector, especially electricity generation. In general, this is consistent with achieving relatively low permit prices for meeting greenhouse gas abatement targets. International emissions trading can significantly reduce estimated greenhouse gas permit prices and the projected burden on the domestic energy sector. Moreover, opportunities to abate greenhouse gas emissions other than carbon dioxide and to promote sink activities can further minimize estimated permit prices and the likely effect on the domestic energy sector, including the coal mining industry.

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph E. Aldy ( CN=Joseph E. Aldy/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:17-FEB-1999 10:14:48.00

SUBJECT: Re: afl-cio

TO: John D. Gibson ( CN=John D. Gibson/OU=WHCCTF/O=EOP @ EOP [ WHCCTF ] )
READ:UNKNOWN

TEXT:
John,

The talking points look fine to me. One minor edit: in the 3rd bullet point, the annual costs range from $70 -$110 for the average household. Let me know if you need anything else.

Joe

John D. Gibson
02/17/99 08:34:39 AM
Record Type: Record

To: Ronald Minsk/OPD/EOP, Joseph E. Aldy/CEA/EOP
cc:
Subject:afl-cio

Thanks to both of you for responding so promptly once you broke free of the diplomatic meeting. Based on your input this has been updated from last night. I realize that we don't go into a lot of depth on any of these topics but I think we have to keep it short so that it's actually useful to Podesta. Can either/both of you look at this before our 1030 staff meeting? Thanks.

--John
x52321

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D44]MAIL41327015V.036 to ASCII,
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# CLIMATE CHANGE & LABOR

- ***Climate change is an issue on which Administration looks forward to working w/labor.***

  - **There is a powerful scientific rationale for taking action on global warming:** 1998 hottest year on record, topping 1997, which was also a record. Our leading scientists agree that human activities are starting to disrupt the Earth's climate. They also warn of serious consequences, like severe droughts, floods and health problems, if global warming is ignored.

  - **Taking action now amounts to an insurance policy against this serious risk.**

  - **Cost of this insurance policy is reasonable.** Administration's economic analysis concludes that implementing Kyoto Protocol would mean an increase of $70-100/year for an average family's energy bill.

    - This price doesn't take into account the price *decrease* likely to result from restructuring the electricity industry.

    - Also doesn't take into account the various domestic initiatives proposed by the President -- such as increased investment in clean energy technologies and tax credits for consumers who purchase fuel-efficient cars, homes, appliances -- that can further reduce costs.

- ***Kyoto Protocol is a good first step in fighting climate change.***

  - **Based on flexible, market-based approach that will allow emissions to be reduced in ways that make the most sense both environmentally and economically.**

  - **Protocol still needs work, however.** Still must "fill-in the details" on key issues such as international emissions trading and must encourage more meaningful participation on part of key developing countries. President will not submit Protocol to Congress for approval without such participation.

- ***High-level Administration officials met w/labor leaders [from the IBEW and the AFL-CIO] [at the White House] last September to discuss these and other issues relating to climate change.*** In this meeting, there were three main topics that were raised:

- **Electricity Restructuring.** Labor understandably concerned that workers are protected as legislative efforts intensify to bring about restructuring of the nation's electricity generation industry. In particular:

  - Worker transition issues: Need to make sure that workers are protected as

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electricity generation is opened up to competition. One way to do this is to ensure that there is a mechanism for providing this protection. I can report to you that when the Administration sends up its bill on electricity restructuring there will be a provision that directs states to take into account worker transition issues as they define "stranded costs."

- Grid reliability: Need to make sure that opening up the industry to competition doesn't mean a loss of reliability for customers. We understand that manpower levels have a lot to do with grid reliability and we will continue a productive dialogue with labor on this issue.

- **Transition Issues.** Apart from the electricity context, we need to keep workers and their families in mind as our nation transition to a less carbon-intensive economy. As we stated in September, we are committed to beginning a consultative process with labor so that we can fully consider what can and should be done to protect workers. The federal government has extensive experience with worker and community transition programs, in connection with everything from free trade agreements to clean air legislation to military base closures. We are now trying to draw on this experience as we study such issues as:

  - Possible sources of revenue for climate change transition assistance;

  - What population of workers/communities/industries should be targeted;

  - Criteria for eligibility;

  - When any benefits/assistance should begin, given that industries are likely to begin taking action to reduce greenhouse gas emissions before any legally binding obligation takes effect.

  Look forward to working closely with labor and industry as we further our understanding of these issues.

- **Coal Industry.** Of course, one of the sectors of the economy where transition issues will be very challenging is in the coal industry. Also a topic in our September meeting.

  - Administration believes coal plays an important role in the nation's energy portfolio. National Energy Strategy makes clear the importance of maintaining a diverse energy supply.

  - Also committed to ensuring that the coal our nation needs is used in the cleanest, most efficient way.

  - Administration acknowledges that moving towards a less carbon-intensive economy will have a substantial impact on the coal industry. At the same time, we believe that some studies have greatly overestimated this impact. The

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Administration's best estimate is that if we implemented Kyoto the coal industry would employ between 5 and 10% fewer workers in 2010 than they would otherwise.

- But that's still a substantial loss. And that's why the Administration is committed to helping mitigate the impact on the coal industry. Two programs underway right now are:

  - R&D into cleaner coal technologies. The FY2000 budget request contains $122 million for R&D to develop next-generation technologies for coal combustion with much higher energy efficiency and lower greenhouse gas emissions. Also looking at new technologies that can absorb and hold waste carbon gases from coal combustion.

  - Abandoned Mine Reclamation. Interior Department is focussing its mine reclamation work to promote reforestation techniques that maximize carbon storage. This way the dollars spent and jobs created in reclamation work would flow to communities that have been heavily coal dependent.

- Administration understands that more needs to be done. In particular, we are consulting with labor and industry on tax incentives to spur adoption of clean coal technologies as well as tax provisions to support advanced coking technologies.

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Cordelia W. Reimers ( CN=Cordelia W. Reimers/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:25-FEB-1999 16:36:09.00

SUBJECT: Re: gender pay gap by cohort

TO: "Francine D. Blau" <fdb4 ( "Francine D. Blau" <fdb4 @ cornell.edu> [ UNKNOWN ] )
READ:UNKNOWN

TEXT:
I am putting both in the mail. There was an article in today's NY Times about the AFL-CIO/IWPR report. The other one, from the Women's Bureau, is a draft of a Fact Sheet on Women Workers. Arline Easley is planning to update it to include the 1998 figures before it is released, but she says the rest of the numbers are correct.

"Francine D. Blau" <fdb4 @ cornell.edu>
02/25/99 01:44:52 PM
Record Type: Record

To: Cordelia W. Reimers/CEA/EOP
cc:
Subject: Re: gender pay gap by cohort

Corky,

Thanks for filling me in on these studies. Please do send me one or both if you can.

Thanks,

Fran

At 06:30 PM 2/24/99 -0500, you wrote:
>Thanks, Fran. I've requested the CPR and the Corcoran & Duncan article
>from the library.
>
>Do you know Arline Easley at the DOL Women's Bureau here in DC? She just
>sent me a copy of a report summarizing trends in earnings differences
>between women and men. It has a table of median real full-time year-round
>earnings for men and women all the way back to 1951, which is the longest
>time series I've found all in one place. She claims that the
female/male
>wage ratio rose more slowly in the 1990s than the 1980s because employment
>growth in the 1990s has been faster in the highest and lowest earnings
>occ-ind groups, where the female/male wage ratio is lowest. But she
>doesn't sort out how this compares with the 1980s or how much of the
>slowdown is due to such occ-ind shifts vs slower growth in women's
relative
>education and experience. Wish I had more time to pursue this question!
>

>I also just received a copy of "Equal Pay for Working Families: National
>and State Data on the Pay Gap and Its Costs," a joint research project of
>the AFL-CIO and the Inst for Women's Policy Research. They adjust the
>male-female annual earnings gap in 1994-96 for hours, education, age,
>marital/parental status, region, and urban/rural status, and they also
>calculate the wage diff due to being in a "female-dominated occupation"
for
>women and men. I'll be interested to see what they come up with. They
>cast their results in terms of how much money women and their families are
>currently losing due to unequal pay, on the implicit assumption that men's
>pay would remain the same as it is now if the earnings gap were to
>disappear (no market adjustments allowed). They assume it would disappear
>if everyone had truly equal opportunity from birth.
>
>If you want me to send you a copy, let me know.
>Corky
>**********
>Cordelia W. Reimers, Senior Economist
>Council of Economic Advisers
>Executive Office of the President
>Washington, DC 20502
>tel: 202-395-6982
>fax: 202-395-6853
>email: Cordelia_W._Reimers@cea.eop.gov
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> (Embedded
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> to file: 02/23/99 01:51:00 PM
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>
>Record Type: Record
>
>
>To: Cordelia W. Reimers/CEA/EOP
>
>cc:
>Subject: Re: gender pay gap by cohort
>
>
>
>
>Corky,
>Sorry I don't believe I can be too much help on this but what I can tell
>you is noted below in CAPS.
>Fran
>At 02:41 PM 2/19/99 -0500, you wrote:
>>Fran,
>>I've been asked for a rough "back of the envelope" estimate of the
>lifetime
>>gender pay gap between men and women of the cohorts that are around ages
>40
>>and 60 now (assuming they had worked full time continuously, to separate

>>the wage diffs from the labor supply diffs).
>>Do you know of any recent estimates of age-wage profiles by cohort and
>>gender?
>NO.
>>
>>The next question is, how much of this lifetime pay gap was due to diffs
>in
>>ed, exp, ind, occ, etc. and how much is unexplained?
>>One idea I have is to use estimates of the % of the overall gap that is
>>unexplained for different years during the cohort's lifetime, and
>>interpolate. Your and Larry's 1997 JOLE article provides estimates for
>>1979 and 1988. Are there any estimates for earlier or later years that
>you
>>would trust?
>>
>I DON'T KNOW OF ANYTHING FOR LATER YEARS. FOR EARLIER YEARS, TWO STUDIES
>THAT I OFTEN CITE ARE: U.S. BUREAU OFTHE CENSUS CURRENT POP REPORTS,
>SERIES P70, NO. 10, MALE-FEMALE DIFFERENCES IN WORK EXPERIENCE, OCCUPATION
>AND EARNINGS 1984 (CITED IN DETAIL IN BLAU AND FERBER 2ND ED); AND MARY
>CORCORAN AND GREG DUNCAN IN JHR, WINTER 1979 (CITED IN DETAIL IN BLAU AND
>FERBER 1ST ED).
>>Another idea is to use the data in Tables 4-6 of your 1998 JEL article to
>>control for education, at least. Do you have handy the dollar values of
>>the wages behind the ratios in Table 4?
>AFRAID NOT.
>>Have you by any chance updated the ratios since 1994?
>NO.
>>
>>Any ideas or data you have would be most useful!
>>Thanks,
>>Corky
>>
>>
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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Janet L. Yellen ( CN=Janet L. Yellen/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME: 2-MAR-1999 20:24:10.00

SUBJECT: Background information on unions, trade, etc.

TO: Nouriel Roubini ( CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Robert Z. Lawrence ( CN=Robert Z. Lawrence/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Attached is a background note that we prepared for John Podesta and Karen Tramontano for their meeting with the AFL-CIO. I talked with Karen this afternoon, and she told me she had talked with David Smith about our meeting with the unions. They would like to talk about the causes of manufacturing's problems (Are we experiencing deindustrialization and if so, is it due to trade?) They would also like to discuss "whether we care." We will need to work out a more formal agenda with Karen for our discussion. ========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D44]MAIL49650066L.036 to ASCII,
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February 16, 1999

MEMORANDUM FOR JOHN PODESTA
KAREN TRAMONTANO

FROM: Janet Yellen

SUBJECT: Background information on unions, manufacturing, and trade for your upcoming meeting with the AFL-CIO.

This memorandum presents data on union membership, wages, and employment and on unionized industries. It describes recent trends and places them in perspective. The key short term perspective is the overall strength of the U.S. labor market: key unionized sectors have been adversely affected by recent developments in the world economy, but the overall job market is the best it has been in a generation. The key long term perspective is the decline in manufacturing employment as a share of total employment associated with strong productivity growth (not trade). Studies suggest that growing demand for skilled workers rather than the impact of trade on unskilled workers has been the most important factor contributing to rising wage inequality over the past two to three decades.

## I. Trends in union membership

- Declining membership share. The share of wage and salary workers who were union members fell to 13.9 percent in 1998, down from 14.1 percent in 1997 and 20.1 percent in 1983, the first year for which comparable data are available. Other data show that over a quarter of the entire labor force was unionized in the mid-1950s.

- Number of members. The number of wage and salary workers who were union members was 16.2 million in 1998, little changed from 1997 and down some from 17.7 million in 1983. Other data show that economy-wide union membership had reached roughly 20 million in the 1970s.

- Private versus public sector membership. About three-fifths of union members were in private nonagricultural industries in 1998 and about two-fifths worked in government.

## II. The strong labor market in 1998

**Overall the labor market has been very strong in the past few years.**

- In 1998, nonagricultural employment rose by 2.8 million; unemployment fell to 4.3 percent, the lowest average level since 1969; average hourly earnings rose 3.8 percent.
- Disadvantaged groups (blacks, including young black men, Hispanics, and less educated

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workers) saw significant real wage gains. Black and Hispanic unemployment rates are at historic lows.

- Moreover, evidence suggests that job displacement rates in 1995-97 were well below rates in 1993-95, the share of displaced workers finding work has risen, and reemployed workers are suffering the smallest wage losses on record. Survey evidence suggests that a very high fraction of workers feel that jobs are readily obtainable.

**Nevertheless, some sectors were disproportionately and adversely affected by the Asian crisis and other special factors.**

- Manufacturing (9.5 million union members, 15.8 percent unionization rate)

  - Total employment stood at 18.5 million in January 1999, down about 280,000 since January 1998 but only slightly (0.6 percent) below the level at the onset of the Asian crisis in July 1997.

  - Within manufacturing, employment declines during 1998 were especially large for primary metals (22,000 jobs lost, approximately 3 percent of the total employment) and industrial machinery and equipment and electronic and electrical equipment; even larger job losses were suffered in textile mills and apparel.

- Mining (72,000 union members, 12.2 percent unionization rate). Coal mining and oil and gas extraction experienced large job losses: employment in coal mining was down 6,000 (6.4 percent) and employment in oil and gas extraction was down 39,000 (11.5 percent).

**Other heavily unionized sectors have experienced sizeable employment gains over the past year.**

- Construction (1.1 million union members, 17.8 percent unionization rate) saw employment rise by 284,000 jobs (4.8 percent)

- Transportation and public utilities (1.8 million union members, 25.8 percent unionization rate) saw 3 percent job growth, with notable gains in trucking.

**Available evidence suggests that workers displaced from manufacturing jobs have obtained other employment, due to the strong national labor market.**

- During 1998, the unemployment rate in manufacturing has dropped slightly, from 3.8 to 3.5 percent, and it remains below the national average.

- The unemployment rate in mining, by contrast rose sharply, from 3.7 to 7.4 percent during 1998.

**Workers in manufacturing and mining experienced slow earnings growth over the past**

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**year in comparison with national average gains.**

- Average hourly earnings in manufacturing rose 2 percent, compared with 4 percent for all workers. Average weekly earnings rose just 0.6 percent versus 3.4 percent for the economy as a whole due to a relative decline in weekly hours worked in manufacturing.

- In mining, average hourly earnings rose a healthy 4.2 percent, but with fewer hours worked, weekly pay declined by 1.6 percent.

- Construction workers saw pay gains of about 3.0 percent in hourly and 3.8 percent in weekly earnings.

**Both the manufacturing and the service industries are highly diverse in terms of pay and job quality. Jobs lost in manufacturing have not uniformly been high paying and jobs gained in services have not uniformly been low-paying.**

- Jobs in some impacted industries—mining and durable manufacturing, especially steel—pay well above average for workers in production and nonsupervisory positions. However, jobs in textiles and apparel pay substantially below average.

- Construction jobs pay high average hourly wages, close to those in mining; jobs in transportation and public utilities also offer high pay.

- Within the broad service sector, pay differs substantially across sectors. Previous work by the CEA suggests that, since 1993, job growth in the service sector has been disproportionately concentrated in occupations and sectors within services paying above average wages. Thus, it is misleading to caricature new service sector jobs as "hamburger flipping jobs." For example, jobs in the high-paying finance, insurance and real estate sector grew especially rapidly in 1998 (this sector had 150,000 union jobs and a 2 percent unionization rate).

## III. Longer term economic trends affecting manufacturing

**The share of manufacturing (and mining) in total U.S. employment has been on a downward trend for several decades.**

- Manufacturing's share of non-farm payroll employment declined from about 24 percent to about 15 percent over the last two decades, a continuation of an even longer term trend. Mining's share of total employment also fell. In contrast, construction's employment share has been stable and the employment share of service producing industries has grown substantially.

- The total number of employees in manufacturing (18.7 million in 1998) has fluctuated within narrow bounds since the 1960s, rising from 16.8 million workers in 1960 to a peak of 21 million in 1979. Manufacturing employment rose 3.6 percent between 1993 and 1998. In mining, employment has been declining in absolute terms since 1980.

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- Although the number of manufacturing jobs has been roughly constant, the amount of job creation and job destruction that goes on is remarkably large. Over a typical 12-month interval, about one in ten manufacturing jobs disappears and a comparable number of new manufacturing jobs open up at different locations.

**Rapid productivity growth in manufacturing (and mining) has allowed an increasing proportion of the nation's productive resources to be devoted to producing other goods and services and has thus contributed to a rising standard of living. But it has also meant that a smaller fraction of the labor force is working in manufacturing.**

- Since 1960, productivity (output per hour) has roughly tripled in manufacturing while doubling for the economy as whole. Productivity growth in manufacturing averaged 2.9 percent per year versus 1.8 percent in the economy as a whole.

- Since 1993, the productivity gap has widened with productivity in manufacturing growing at 3.9 percent per annum, almost three times as fast as the 1.4 percent pace for the economy as a whole.

- Within manufacturing, the annual pace of productivity growth has been far more rapid for durable than for nondurable manufacturing (3.4 percent per year versus 2.3 percent per year since 1960.)

- The share of manufacturing in total GDP has declined from 23 percent in 1977 to 17 percent in 1997. Manufactured goods account for a dwindling percentage of the spending of American households. As income rises, people typically spend an increasing fraction on health, education and other services. This long-term trend is apparent in other countries as well. Services are rising in importance in both developing and emerging market countries.

**Studies suggest that foreign trade is not primarily responsible for the long-term decline in manufacturing employment, although the Asian crisis has played a role in manufacturing's recent performance.**

- Calculations by Robert Lawrence and others suggest that if the entire trade deficit after 1975 had been eliminated through extra production of U.S. manufactured goods, manufacturing payrolls in 1994 would have been only 8 percent higher; manufacturing's share of total employment would have fallen by 14 rather than 15 percentage points.

- The U.S. is a net importer of manufactured goods and net imports have risen, but net imports have not increased enough to explain the decline in manufacturing employment.

  - Although manufacturing imports have risen, substantially in some sectors, exports have also risen substantially.

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- Within manufacturing, many sectors have seen strong export gains.

## IV. Trade and Wages

**Over the last 25 years, real wage growth has been slow and the gap between the wages of skilled and unskilled workers has widened.**

- Real hourly compensation closely mirrors the behavior of labor productivity. Between 1959 and 1973, productivity and hourly compensation both grew in excess of 2.5 percent annually. Since 1973, annual real compensation, properly measured, and productivity have both grown at about 1 percent. The post 1973 productivity slowdown is the main reason for slower growth in labor compensation.

- Since the 1970's earnings inequality (including the gap between the wages of skilled and unskilled workers) has risen substantially.

  - Between 1973 and 1993 the median hourly wages of men aged 20-64 with high school but no college actually fell 12 percent in real terms; the hourly wages of women fell 3 percent in real terms. Since 1993, there has been a modest improvement with the median hourly wages of men, aged 20-64, up 2 percent and those of women up 3 percent.

- It is not possible to pinpoint precisely the causes for the widening skill gap, but a large body of research attributes most to broad-based technological change that is biased in favor of skilled workers. Such inequality is evident in all sectors, not just in manufacturing. In today's increasingly high-tech economy, the payoff to skill and the ability to use computers has risen. That is one reason that the Administration's emphasis on education and lifelong skills upgrading is so critical.

  - The reduced demand for unskilled labor is broad based and has occurred throughout the economy. The utilization of unskilled (less than high school diploma) workers declined by even more in sectors sheltered from trade, including construction and retail trade, than in sectors exposed to trade (66 percent decline versus 59 percent decline.)

- About a fifth of the decline in real wages may be due to factors such as decreased unionization and the decline in the real value of the minimum wage. However, inequality has increased among groups of workers such as college graduates who are unlikely to belong to unions.

  - Unions have long provided wage premiums to less skilled workers. Studies suggest that, other factors equal, working in a unionized firm raises a worker's earnings by 10 to 15 percent.

  - During much of the 1980s, compensation grew more slowly in the unionized

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sector than in the rest of the economy but more recently, the trends have been similar in both sectors.

- The share of employed workers belonging to unions has eroded from a peak of roughly 30 percent through much of the 1950s and 1960s to about 14 percent in 1996, a natural consequence of the rising employment share in less-unionized sectors (services), regions (the South), and demographic groups (women).

**Most estimates find that international trade accounts for only between 10 and 15 percent of the increase in earnings inequality.**

- This might understate the role of globalization, in that there is an interactive effect between the two factors: it is possible that education and technology would not be as important as they are if the U.S. were closed off from the rest of the world.

- But Americans on average would have lower real incomes in the absence of increased trade. Technological innovation and skills are our international comparative advantage; and international competition keeps industries like autos on their toes, which is one reason why Detroit produces better cars today than they did in the 1970s.

**The wage gap may have stopped widening.**

- A possible explanation is the large increase in the supply of highly educated workers that has responded to the demand for them.

- Another explanation is that the current economic expansion has progressed so far that even unskilled workers are in high demand. Over the last two years, the demand for less skilled workers as well as their wages have risen rapidly.

## V. Thinking about international trade

**The U.S. economy derives important benefits from high levels of international trade.**

- Roughly a quarter of U.S. growth since 1993 represents the contribution of exports, and this includes the period since mid-1997 when exports have been hard hit by the Asian crisis.

  - The Commerce Department estimates that each $1 million of exports supports about 13 jobs, so 1998's $959 billion of exports supported about 12.5 million jobs.

- Imports have also increased strongly during this period—by more than exports, implying an increase in the trade deficit. But it would be wrong to assume that without the increase in the trade deficit, the U.S. economy would have grown much more rapidly than it actually did.

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- For the last year or more the economy has been operating at "full employment." Although the Asian crisis diminished demand for manufactured goods, interest rates also declined as a consequence of the crisis leading to offsetting increases in employment in other sectors, particularly housing and services.

- Imports are increasing as a *result* of increasing incomes. That is why trade balances are counter-cyclical.

- A country's current account deficit equals the difference between its investment and saving. During the 1990s, national investment and national saving have both increased but investment increased faster, attracting foreign capital to the United States, resulting in a strong dollar and growing current account deficits. In the 1980s, growing current account deficits were the consequence of weak national investment and even weaker saving. Trade deficits due to an investment boom are less of concern because investment generates the payoff needed to finance foreign borrowing.

- If we do not buy goods from other countries, they cannot earn the dollars they need to buy goods from us. Erecting new barriers to imports would suppress imports but also end up depressing our own exports and curtailing job opportunities for Americans in high-paying export industries.

  - The current crisis in emerging market countries offers a dramatic illustration of this general principle. When investors suddenly cut East Asia off from capital inflows in 1997, those countries were no longer able to finance their trade deficits, and thus were forced to start running trade surpluses in 1998 and 1999. Hence the fall in U.S. exports to the region.

  - Our response to the crisis, working with the IMF and the rest of the international community, has worked to limit the fall in our sales, and lay the groundwork for a return to the preceding pattern of growth in the East Asians' incomes and imports from us.

- A world in which everyone's levels of exports and imports are high and rising (as opposed to the difference between them) together is more conducive to worldwide growth and income gains.

  - Both theoretical and empirical research shows that countries that are highly open to trade have higher income levels and growth rates. The benefits from openness result from deploying domestic workers in industries where they are relatively most productive, purchasing imported intermediate and final goods at lower costs than they could be produced domestically; in addition, trade increases competition resulting in more rapid innovation and expanded consumer choice.

    - According to one statistical estimate, every one-percentage-point increase in openness (controlling for such important determinants as investment and education) raises income by .34 per cent. U.S. openness (exports plus

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imports as a share of GDP) has increased by 12 points since 1950, implying an estimated effect on income of about 4 percent.

- Export jobs are good jobs. Workers in export-oriented firms earn 13-18 percent more than other workers according to Commerce Dept. and other estimates. Even after adjusting for various worker characteristics, workers in export-oriented firms earn more than others (5 percent more within the category of skilled workers, 7 percent more within unskilled workers). And foreign trade barriers are often highest in the industries where America leads the world—agriculture, financial services, pharmaceuticals, aircraft and telecommunications.

- Popular conceptions exaggerate the extent to which patterns of trade and investment are driven by the influence of cheap labor in poor countries. More than half of U.S. imports come from trade partners that have wages at least 90 percent of the U.S. level. And more than one-third of U.S. foreign direct investment in manufacturing facilities went to countries with labor costs above the U.S. level. Often they have more rigorous labor standards as well.



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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Francine P. Obermiller ( CN=Francine P. Obermiller/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME: 2-MAR-1999 14:23:05.00

SUBJECT: MARCH 5-Mtg re Issues from Miami Mtg

TO: Rebecca M. Blank ( CN=Rebecca M. Blank/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Janet would like you to attend a meeting in her place on Friday, March 5, 5:00-6:00pm, in the OEOB, Room 180.

Karen Tramontano's office (Counselor to the Chief of Staff) called and said that they will be discussing issues that came out of the meeting she and John Podesta had with the AFL-CIO in Miami last week.

They are sending more info via email to Alice, who will forward it to us. I will put this on your calendar, unless you indicate otherwise.

poc: Carolyn at x61987

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Robert Z. Lawrence ( CN=Robert Z. Lawrence/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:17-MAR-1999 10:29:27.00

SUBJECT: Re: Labor Economics Meeting

TO: Lael Brainard ( CN=Lael Brainard/OU=OPD/O=EOP @ EOP [ OPD ] )
READ:UNKNOWN

CC: Nouriel Roubini ( CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Actually it seemed to go well -- since we managed to avoid talking about policy until the last two minutes! It was particularly helpful that early on we were able to distinguish between long run trends and the short run impact of the Asian crisis. I also think the discussion was civil because most participants were economists and we could share a common framework. People understood the dominant role of faster productivity growth in the falling share of manufacturing employment for example.

There was a marked contrast between those people who represented particular industries -- autos, steel, and textiles -- who blame "the current trade policy regime" for their problems -- and those who are more academic --e.g. from the EPI or AFL-CIO who seemed more balanced in their perspective. But all told, I felt our mission was accomplished.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Cordelia W. Reimers ( CN=Cordelia W. Reimers/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:19-MAR-1999 11:11:35.00

SUBJECT: Re: FWD: Message from Larry Mishel (AFL-CIO) following up our meeting with

TO: Nouriel Roubini ( CN=Nouriel Roubini/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
Here are email addresses of some of the economists at DOL, in case you still need them:

Katharine Abraham, Commissioner of Labor Statistics, BLS: abraham_k @ bls.gov

Harry Holzer, Chief Economist, DOL: holzer-harry @ dol.gov

Richard McGahey, Assistant Secretary for Pension and Welfare Benefits: mcgahey-richard @ dol.gov

Ed Montgomery, Counselor to the Secretary: Montgomery-Edward @ dol.gov

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Nouriel Roubini ( CN=Nouriel Roubini/OU=CEA/O=EOP [ CEA ] )

CREATION DATE/TIME:20-MAR-1999 16:21:38.00

SUBJECT: Larry Mishel (AFL-CIO) following our labor union meetin

TO: Steven N. Braun ( CN=Steven N. Braun/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Douglas W. Elmendorf ( CN=Douglas W. Elmendorf/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Robert F. Schoeni ( CN=Robert F. Schoeni/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TO: Cordelia W. Reimers ( CN=Cordelia W. Reimers/OU=CEA/O=EOP @ EOP [ CEA ] )
READ:UNKNOWN

TEXT:
I received this message and attached files after our meeting with the labor union economists; there was a discussion about the growing income inequality and its causes. Any comments? Views? They are very eager to get our views. Since this subject is not my cup of tea, I will be happy if some of you could reply to him. We can also discuss the topic among us.
Nouriel

---------- Forwarded by Nouriel Roubini/CEA/EOP on 03/20/99 04:18 PM ----------

lmishel @ epinet.org (Lawrence Mishel)
03/18/99 10:27:32 AM
Record Type: Record

To: Nouriel Roubini/CEA/EOP
cc: Tom Palley <tpalley @ aflcio.org>
Subject: Follow-up

Nouriel,

I have attached a spreadsheet with annual data, 1959-97 on labor and capital income, capital-output ratio etc for the corporate sector. The data are drawn from NIPA Table 1.16 coupled with asset data from Fed/BEA. Note that capital income and "profits" are equated, for simplicity of exposition, but always include both profit and interest( so the composition shift within capital income doesn't affect any conclusions).

My analysis is in chapter one of our State of Working America, attached as a PDF file. Please review the material starting on page 62, especially Tables 1.15 and 1.15 and Figure 1F.

This topic is treated too simply in most circumstances, in my view. There doesn't seem to be any clear or explicit standard, for instance, to determine whether there has been a redistribution from L to K. Constant shares don't do it because there's been a rapid fall in the K/Y ratio. Other changes such as a growt in labor quality should be

considered, too. Noone, including me, has specified a model of what drives factor shares or the return to capital and has estimated whether there has been a structural shift. There's frequent discussion that there's "small" changes, but little rcognition of any yardstick with which to measure size- a 1%pt shift in labor's share in the corporate sector is equivalent to a 1.2% wage decline, an amount larger than all of the expected gains from a range of policies(GATT, deficit reduction,etc.). There's also sometimes a reference to the current shift being within the historical norm, but we had a large swing from very high returns in the 60's to very low returns in the 70's. This leaves me wondering whether any large shift would be outside of the "norm" of the last 40 years. I use a metric of how much the shift means in terms of compensation levels

I'd be interested in your, and your CEA colleagues' comments. I think this area is vastly underdeveloped in economic analysis, so it's important to dialogue about the metric for making judgements. At this point, a constant share argument is neither factually true or a useful standard. If there's not a tremendous rise in "profitability" then is the stock market boom purely speculative? Or solely based on expected returns with no current shift to higher returns?

Thanks for your interest.

--

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Direct line (202) 331-5533
Fax (202) 775-0819

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- Factor.xls

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CHAPTER 1

# Family income: slower growth, greater inequality

THE SLOW AND UNEVEN GROWTH OF FAMILY INCOME SINCE THE EARLY 1970S IS THE most important economic problem confronting American families. In this regard, understanding the dynamics of family income growth is central to the theme of this book. This chapter examines how the economy, through the production of jobs, wages, and returns on investment, has generated slow growth and increasing inequality in family incomes.

The 1990s recovery, despite racking up some impressive numbers on aggregate economic indicators such as unemployment and recent productivity growth, provides an excellent example of the income problem. For the first time in the postwar period, family income fell four years in a row, declining each year from 1989 to 1993. The initial decline was attributable to the recession that began in 1990, but the median continued to fall as the recovery got under way in 1991 and 1992. In 1994, median family income finally responded to overall growth, and it has increased each year since (the most recent available data on family income are from 1997). Nevertheless, the median family — the family in the middle of the income scale — was only slightly better off (by $285 in 1997 dollars) in 1997 than it was at the peak of the last business cycle, in 1989. This is also historically unprecedented: in every prior recovery, the income of the typical family had, by this point, far surpassed its level of the prior peak. But in the 1990s, thanks to the continued surge of income inequality, the relationship between the growing economy and improving living standards has eluded all but the wealthiest families.

Even with the growth that has occurred since 1994, by 1997 the income of the median family was essentially back where it started in 1989, despite a 9% increase in productivity over the period.

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The underlying factor driving the income problem is the growth of inequality — the ever-expanding gap between those at the top and the middle and the middle and the bottom of the income distribution. While this pattern of income growth has prevailed since the late 1970s, it departs from the earlier postwar period, which saw a much more equalizing growth pattern. In fact, inflation-adjusted incomes about doubled for each family income "fifth" from 1947 to 1979, but after that incomes stagnated for middle-income families, fell at the bottom, and rose at the top. Even in 1996, when the labor market was finally beginning to reflect the benefits of the continued recovery, the average real income of the bottom fifth of families fell by 1.8%. The strongest growth occurred among the top 5%, whose average income grew 3.1% from 1995 to 1996.

Why have income trends continued to be so negative in the 1990s? Along with overall slow growth, the primary reason, at least through 1996, is the continuing wage deterioration among middle- and low-wage earners, now joined by white-collar and even some groups of college-educated workers. Another key factor in understanding recent income trends is the contribution of working wives.

In the 1980s, many families compensated for the fall in hourly compensation, which was particularly steep for male workers, by working more hours (either through more family members working or through longer hours by those employed). This strategy — working longer for less — is most notable among married-couple families, in part because these families tend to have more potential workers than do families headed by one person. In fact, in the absence of increased hours and earnings by working wives in married-couple families in the 1980s, the incomes of the bottom 60% of families would have fallen.

In the 1990s, however, there was a slowdown in the growth (for some, even a decline) of hours and earnings among working wives in married-couple families, particularly among low- and middle-income women. Unlike the prior decade, wives' contributions were no longer sufficient to offset the lower earnings of husbands, whose wages continued to fall (only husbands in the top fifth experienced wage increases). By 1996, the bottom 80% of married-couple families would have experienced flat or declining incomes in the absence of wives' work; even with wives' contributions, families in the bottom 40% lost economic ground in the 1990s.

The slowdown in wives' hours and earnings also affected inequality growth. In the 1980s, the fastest growth in wives' work effort was among the bottom 60%, and their contributions to their families' incomes counteracted, to an extent, the sharp growth of income among the richest married-couple families. The net effect was equalizing. But since hours and earnings losses were most concentrated among this same middle- and low-income group of wives in the 1990s, their earnings had little impact on the growth of inequality over this period. Over the full period, 1979-96, however, wives' contributions were equalizing.



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One difficulty in assessing the progress of inequality in the 1990s stems from an important change in the methodology used by the Census Bureau, the primary source for income data in this chapter. Starting in 1993, Census counters allowed families to report higher levels of income from earnings than in previous years, creating an inconsistency that led to an upward bias in the inequality trend. Below, we have adjusted the data to allow a comparison to 1989, but we still find solid evidence that family income inequality continued to grow in the 1990s — at about half the rate of the 1980s and twice the rate of the 1970s.

Not only have incomes grown slowly, they have declined for younger families. A cohort, or intergenerational, analysis of income growth shows that recent groups of young families have started out at lower incomes and obtained slower income gains as they approached middle age. Consequently, families headed by someone entering their prime earning years after 1976 may not achieve the same incomes in middle age as did the preceding generation. One result of this trend has been to diminish the role of income mobility in offsetting increasing income inequality.

The growth of inequality has also been fueled by large increases in the capital incomes of the wealthy. These gains stem in large part from the increase in the rate of profit, or the return to capital holdings. Profit rates continue to soar in the 1990s, but (as discussed in the Introduction) these gains have not led to increased investment in capital stock, nor have they been accompanied by increases in efficiency, as measured by productivity growth. Their main effect has been to increase the incomes of the richest families at the expense of the broad working class.

In the first few sections of this chapter we examine the changes in income in recent years relative to other periods since 1947. This analysis focuses on changes in median family income for families overall as well as for families differentiated by the age or race/ethnicity of the household head and by family type (families with children, married-couple families, single-parent families, and so on). In the final sections we turn to the growth of inequality and its causes.

## Median income grows slowly in 1980s, declines in 1990s

Income growth over the last two business cycles — 1979-89 and 1989-97 — was slow and the gains were unequally distributed. **Tables 1.1** and **1.2** show changes in family income, adjusted for changes in consumer prices, in various cyclical peak (or low-unemployment) years since World War II. (These Census data exclude the impact of the sharp increase in capital gains over the 1980s and 1990s; we adjust for this omission in Chapter 2). As explained in the section on documentation and methodology, examining income changes from business cycle



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**TABLE 1.1** Median family income,* 1947-97 (1997 dollars)

| Year | Median family income* |
|---|---|
| 1947 | $20,102 |
| 1967 | 35,076 |
| 1973 | 40,978 |
| 1979 | 42,483 |
| 1989 | 44,283 |
| 1997 | 44,568 |
| *Total increases* | |
| 1947-67 | $14,974 |
| 1967-73 | 5,902 |
| 1973-79 | 1,505 |
| 1979-89 | 1,800 |
| 1989-97 | 285 |

* Income includes all wage and salary, self-employment, pension, interest, rent, government cash assistance, and other money income.

Source: Authors' analysis of U.S. Bureau of the Census data. For detailed information on table sources, see Table Notes.

**TABLE 1.2** Annual growth of median family income, 1947-97 (1997 dollars)

| | Median family income growth | | Adjusted for family size* |
|---|---|---|---|
| Period | Percent | Dollars | Percent |
| 1947-67 | 2.8% | $749 | n.a. |
| 1967-73 | 2.6 | 984 | 2.8% |
| 1973-79 | 0.6 | 251 | 0.5 |
| 1979-89 | 0.4 | 180 | 0.5 |
| 1989-97 | 0.1 | 36 | 0.1 |

* Annualized growth rate of family income of the middle fifth, divided by the poverty line for each family size.

Source: Authors' analysis of U.S. Bureau of the Census data.



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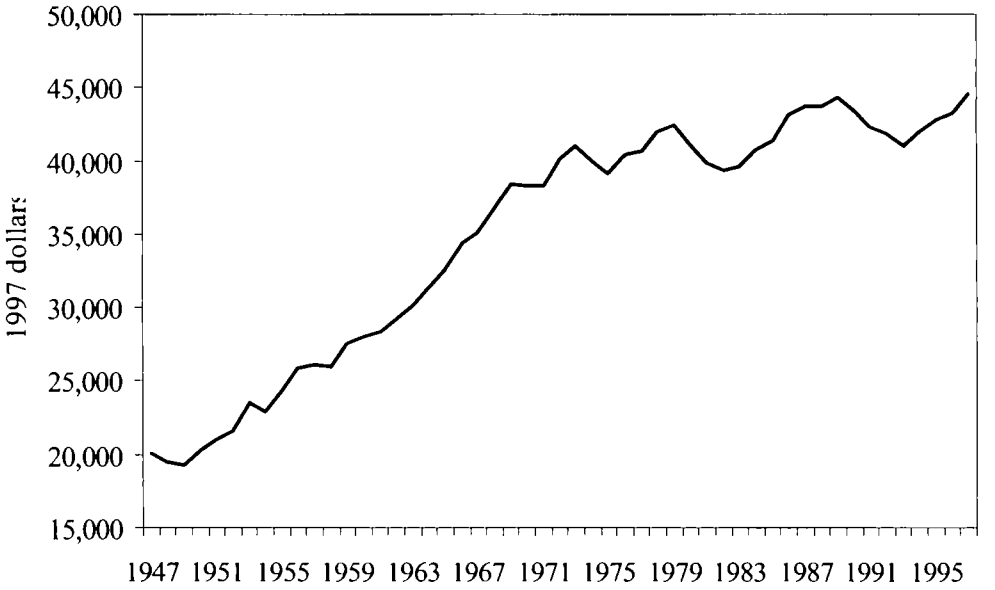
**FIGURE 1A** Median family income, 1947-97




Source: U.S. Bureau of the Census.

peak to business cycle peak eliminates the distortion caused by the fact that incomes fall significantly in a recession and then recover in the subsequent upswing (see **Figure 1A**).

Family income increased substantially in the two decades immediately following World War II (1947-67). During that time, median family income increased by $14,974, for an annual rate of growth of 2.8% (Table 1.2). Family incomes continued to grow into the early 1970s, but since 1973 they have risen slowly. In 1989, the median family's income was $1,800 greater than it was in 1979, translating into growth of just 0.4% per year from 1979 to 1989, or only two-thirds of the sluggish 0.6% annual growth of the 1973-79 period and only one-seventh the rate of the postwar years prior to 1973 (**Figure 1B**). In fact, the $1,800 income growth over the 10 years after 1979 equals the amount that incomes rose every 22 months in the 1967-73 period.

The recession that began in 1990 and ended in 1991 (or in 1992 in terms of unemployment) significantly reduced incomes through 1993. Despite income growth from 1993 to 1997, the median family income in 1996 was only 0.6%, or $285, above its 1989 level. This small 1989-97 income growth appears to reflect more than the unemployment accompanying a normal business cycle downturn. First, considering the mildness of the 1991 recession (unemployment rose by



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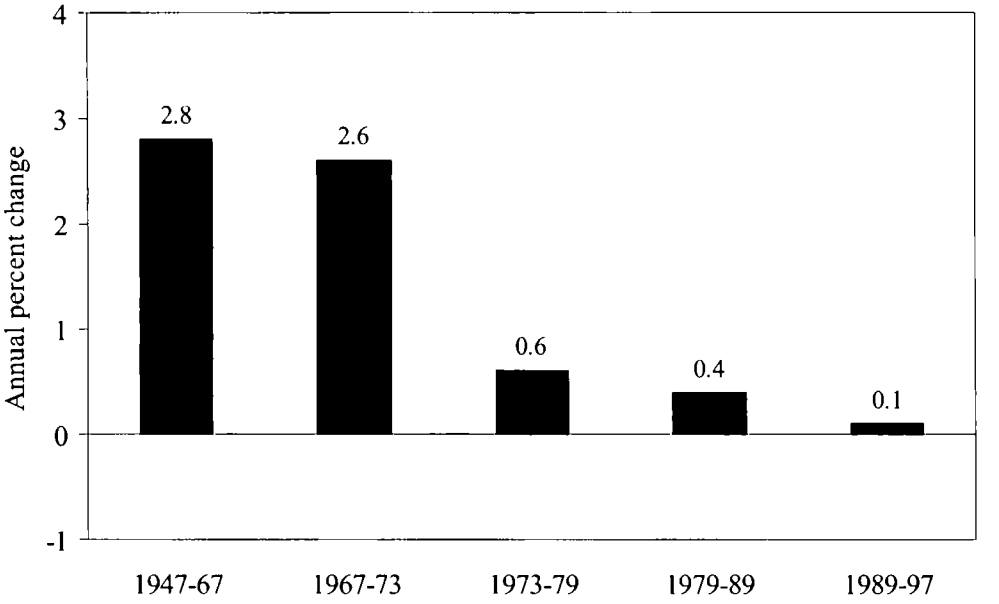
**FIGURE 1B** Annual growth of median family income, 1947-97




Source: U.S. Bureau of the Census.

2.1 percentage points, which is less than in the usual downturn), we would have expected median family income to recover much sooner, as it did following much deeper recessions. Second, the income decline reflects several ongoing and new structural shifts in income growth, such as the falloff in wages among white-collar and college-educated workers that preceded the recession.

The fact that the median income took eight years to return to its pre-recessionary peak is historically unique. Typically, job growth, falling unemployment, and increasing productivity — all of which occurred in the recovery that began in 1991 — would have helped return median family income to its previous level. But as we show below, increasing income inequality and continued earnings declines through 1996 have eroded the incomes of all but the top 5% of families.

It is common practice also to examine measures of family income growth that adjust for changes in family size, since the same total family income shared by fewer family members can be interpreted as improved economic well-being for each family member. However, trends in incomes adjusted for family size can be misleading, since the recent decline in the average family's size is partially due to lower incomes; that is, some families feel they cannot afford as many children as they could have if incomes had continued to rise at early postwar rates. Yet a family deciding to have fewer children or a person putting off



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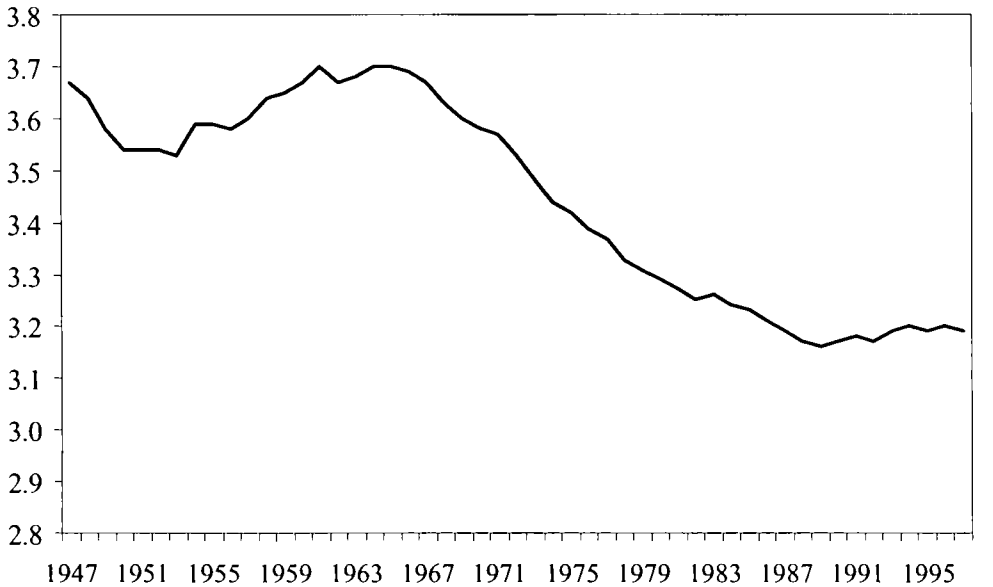
**FIGURE 1C** Average number of persons per family, 1947-97




Source: U.S. Bureau of the Census.

starting a family because incomes are down appears "better off" in size-adjusted family income measures. It also seems selective to adjust family incomes for changes in family size and not adjust for other demographic trends such as more hours of work and the resulting loss of leisure.

Nevertheless, even when income growth is adjusted for the shift toward smaller families (Table 1.2, column 3), the income growth from 1979 to 1989 is only slightly higher than the "unadjusted" measure (0.5% versus 0.4%). In fact, the trends in size-adjusted income never diverge more than 0.2% from the unadjusted measure in any period, suggesting that the shrinking size of families has only marginally offset the slow growth of median family income since 1973.

Note that the decline of size-adjusted family income was the same as that of unadjusted income in the 1990s. This stems largely from the fact that family size, after falling continuously over the 1980s, stabilized in the 1990s. **Figure 1C** shows the average number of persons per family in the 1947-97 period. At the beginning of the figure, in 1947, families had on average about 3.7 members. By 1989 the number had fallen to 3.2. Since then the trend has been flat, and so we would not expect size adjustments to play a role in income trends in the 1990s.

We return below to a more detailed investigation of the impact of other aspects of demographic change on family income growth and inequality.



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## An economic 'generation gap'

**Table 1.3** shows that income declines have been greatest among the youngest families. The average income of families headed by someone under age 25 declined at an annual rate of 2.4% from 1979 to 1989 and 0.7% from 1989 to 1997. These young families in 1997 had about $5,000 less income to spend in real dollars than their 1967 counterparts had when they were starting out. This pattern of income loss has meant that the income gap between the median income of these youngest families and those of older persons has expanded since 1979.

Families headed by someone between the ages of 25 and 34 have also fared poorly relative to earlier years. The incomes of these families eroded 0.5% per year from 1979 to 1989 and was flat from 1989 to 1997, in stark contrast to their 3.1% and 2.5% annual growth rates in 1947-67 and 1967-73. Many families in this age group are likely to be bringing up young children and trying to buy a home of their own; their income problems thus represent income problems for the nation's children. Families with household heads age 25 to 34 in 1997 had incomes about $1,900 less than their counterparts had in 1979.

The incomes of the 35-44 and 45-54 age groups grew modestly — 0.5% and 0.8% per year — between 1979 and 1989, compared to growth of about 3% per year between 1947 and 1973. Incomes of families headed by someone over 65 increased at a 2.0% pace from 1979 to 1989, only half as fast as in the 1967-73 period. From 1989 to 1997, families headed by individuals less than 55 experienced income stagnation or losses; only those families headed by older persons saw their incomes grow. Thus, Table 1.3 underscores a post-1979 economic "generation gap," with younger families starting out lower down the income scale and falling further behind, while older families hold their ground.

## Income growth among racial/ethnic groups

While sluggish income growth has affected all racial groups, **Table 1.4** illustrates some important differences in income growth by race, particularly in the 1989-97 period, when black families were the only racial group with significant positive median income growth. Hispanic families, however, lost ground at a highly accelerated rate in the 1990s.

White families, who fared the best from 1967 to 1979, experienced modest 0.5% annual growth in their real median income from 1979 to 1989. Black families, whose 1996 median income was 40% lower than that of whites, experienced slower income growth than whites in 1973-79 (0.3% versus 0.6%) and in



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**TABLE 1.3** Median family income by age of householder, 1947-97 (1997 dollars)

| Year | Under 25 | 25-34 | 35-44 | 45-54 | 55-64 | Over 65 |
|---|---|---|---|---|---|---|
| 1947 | $15,553 | $19,439 | $21,840 | $22,815 | $21,236 | $12,124 |
| 1967 | 25,840 | 35,792 | 40,850 | 42,783 | 35,558 | 17,368 |
| 1973 | 27,251 | 41,506 | 48,650 | 51,765 | 43,461 | 21,851 |
| 1979 | 28,220 | 41,877 | 49,699 | 54,874 | 47,532 | 24,557 |
| 1989 | 22,086 | 39,960 | 52,036 | 59,671 | 48,724 | 29,877 |
| 1997 | 20,820 | 39,979 | 50,424 | 59,959 | 50,241 | 30,660 |
| *Annual growth rate* | | | | | | |
| 1947-67 | 2.6% | 3.1% | 3.2% | 3.2% | 2.6% | 1.8% |
| 1967-73 | 0.9 | 2.5 | 3.0 | 3.2 | 3.4 | 3.9 |
| 1973-79 | 0.6 | 0.1 | 0.4 | 1.0 | 1.5 | 2.0 |
| 1979-89 | -2.4 | -0.5 | 0.5 | 0.8 | 0.2 | 2.0 |
| 1989-97 | -0.7 | 0.0 | -0.4 | 0.1 | 0.4 | 0.3 |

Source: Authors' analysis of U.S. Bureau of the Census (1996) and unpublished Census data.

**TABLE 1.4** Median family income by race/ethnic group, 1947-97 (1997 dollars)

| | | | | Ratio to white family income of: | |
|---|---|---|---|---|---|
| Year | White | Black* | Hispanic** | Black | Hispanic |
| 1947 | $20,938 | $10,704 | n.a. | 51.1% | n.a. |
| 1967 | 36,407 | 21,554 | n.a. | 59.2 | n.a. |
| 1973 | 42,829 | 24,717 | $29,635 | 57.7 | 69.2% |
| 1979 | 44,330 | 25,103 | 30,731 | 56.6 | 69.3 |
| 1989 | 46,564 | 26,158 | 30,348 | 56.2 | 65.2 |
| 1997 | 46,754 | 28,602 | 28,142 | 61.2 | 60.2 |
| *Annual growth rate* | | | | | |
| 1947-67 | 2.8% | 3.6% | n.a. | | |
| 1967-73 | 2.7 | 2.3 | n.a. | | |
| 1973-79 | 0.6 | 0.3 | 0.6% | | |
| 1979-89 | 0.5 | 0.4 | -0.1 | | |
| 1989-97 | 0.1 | 1.1 | -0.9 | | |

* Prior to 1967, data for blacks include all nonwhites.
** Persons of Hispanic origin may be of any race.

Source: Authors' analysis of U.S. Bureau of the Census (1996) and unpublished Census data.

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1979-89 (0.4% versus 0.5%). The median income of families of Hispanic origin declined slightly (0.1% per year) between 1979 and 1989.

The ratio of black to white median family income fell from 1967 to 1979 and then remained fairly constant, declining slightly by the end of the 1980s. Interestingly, in the 1989-97 period, the income of the median black family rose at a much faster annual rate (1.1%) than in the prior two periods, while that of the median white family fell. These countervailing trends led to an increase in the black/white ratio. (Chapter 6 reveals similar relative gains by blacks in poverty rates.) Prior to the 1990s, Hispanic family incomes were higher than those of African Americans, but they fell sharply in the 1990s, at an annual rate of 0.9%. Thus, by the end of the period, Hispanic median family income was lower than that of black families and had fallen to a historical low of 60.2% that of white families. In 1997 dollars, the median Hispanic family was $2,206 worse off than in 1989.

## Only dual-income, married couples gain

The only type of family that experienced income growth over the 1980s and the 1990s was married couples with a wife in the paid labor force (**Table 1.5**). Incomes among married couples where the wife was not employed declined 0.3% over the 1980s and 0.4% in the 1990s (1989-97). Similarly, the slight fall in income experienced by single-parent families in the 1980s accelerated somewhat in the 1990s. This was a dramatic turnaround for female-headed families, since their incomes grew 1.4% per year in the 1973-79 period. (The effect of this income decline on poverty rates is explored in Chapter 6.)

This pattern of income growth suggests that it was only among families with two adult earners that incomes grew in the post-1979 period. The data in Table 1.5 also show sizable growth in the importance of working wives. In 1979, the share of married couples without a wife in the labor force was about equal to that of those with a wife in the labor force (41.9% versus 40.6% of all families). By 1997, married couples with two earners (assuming the husband worked) made up 47.3% of all families, while one-earner married couples were proportionately fewer in number, 29.3% of the total.

While this shift toward two-earner families has been a major factor in recent income growth, this shift appears to be attenuating, since the rate at which wives (and women in general) have been joining the labor force has slowed in recent years (see Chapter 4). For example, among married-couple families, wives joined the paid labor force at an annual rate of 1.3% in the 1970s, 0.8% in the 1980s, and 0.5% in the 1989-97 period (not shown in table). Furthermore, as we show below, the hours of working wives grew more slowly in the 1990s relative to the 1980s.



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**TABLE 1.5** Median family income by family type, 1947-97 (1997 dollars)

| | Married couples | | | Single | | |
|---|---|---|---|---|---|---|
| Year | Total | Wife in paid labor force | Wife not in paid labor force | Male-headed | Female-headed | All families |
| 1947 | $20,619 | n.a. | n.a. | $19,472 | $14,405 | $20,102 |
| 1967 | 37,322 | $44,020 | $33,652 | 30,128 | 18,986 | 35,076 |
| 1973 | 44,301 | 51,812 | 38,826 | 36,527 | 19,712 | 40,978 |
| 1979 | 46,477 | 53,921 | 38,403 | 36,455 | 21,429 | 42,483 |
| 1989 | 49,893 | 58,590 | 37,209 | 36,043 | 21,281 | 44,283 |
| 1997 | 51,591 | 60,669 | 36,027 | 32,960 | 21,023 | 44,568 |
| *Annual growth rate* | | | | | | |
| 1947-67 | 3.0% | n.a. | n.a. | 2.2% | 1.4% | 2.8% |
| 1967-73 | 2.9 | 2.8% | 2.4% | 3.3 | 0.6 | 2.6 |
| 1973-79 | 0.8 | 0.7 | -0.2 | 0.0 | 1.4 | 0.6 |
| 1979-89 | 0.7 | 0.8 | -0.3 | -0.1 | -0.1 | 0.4 |
| 1989-97 | 0.4 | 0.4 | -0.4 | -1.1 | -0.2 | 0.1 |
| *Share of families* | | | | | | |
| 1951* | 86.7% | 19.8% | 66.9% | 3.0% | 9.9% | 100.0% |
| 1967 | 86.4 | 31.6 | 54.8 | 2.4 | 10.6 | 100.0 |
| 1973 | 85.0 | 35.4 | 49.7 | 2.6 | 12.4 | 100.0 |
| 1979 | 82.5 | 40.6 | 41.9 | 2.9 | 14.6 | 100.0 |
| 1989 | 79.2 | 45.7 | 33.5 | 4.4 | 16.5 | 100.0 |
| 1997 | 76.6 | 47.3 | 29.3 | 5.5 | 17.8 | 100.0 |

* Earliest year available.

Source: Authors' analysis of U.S. Bureau of the Census (1996) and unpublished Census data.

Married-couple families, although still predominant — they represented 76.6% of all families in 1997 — make up a smaller share of families than they did in the 1950s and 1960s. There has been a continuing rise in the importance of female-headed families; in 1997 they represented 17.8% of the total. Although this phenomenon has been the focus of increased attention in recent years, the share of female-headed families grew more quickly in the 1967-79 period than in the period since 1979. Note also that the median incomes of these female-headed families actually grew over the 1967-79 period, when their share of the population of families was increasing. This pattern suggests that income trends *within* demographic groups were a more important source of income loss than the often-cited shift to female-headed families. (Chapter 6 looks closely at this issue in the context of poverty.)



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Examined as a whole, family income growth was stagnant over the 1989-97 period (Table 1.5, last column), with losses experienced by single-headed families and families with wives not in the paid labor force. Families with working wives were the only family type to achieve income growth over this period; their incomes rose a modest 0.4% per year. As we show below, this growth was driven primarily by the increase in annual hours of work by wives.

## Growing inequality of family income

The vast majority of American families have experienced either modest income growth or an actual erosion in their living standards in recent years, while the small minority of upper-income families have experienced substantial income growth. The result has been an increase in inequality such that the gap between the incomes of the well-off and those of everyone else is larger now than at any point in the postwar period. The rich have gotten richer, low-income and even poor families are more numerous and are poorer than they have been in decades, and the middle has been "squeezed." This section examines the income trends of families at different income levels and the dramatic growth of income inequality in the 1980s and 1990s.

**Table 1.6** shows the share of all family income received by families in different segments of the income distribution. Families have been divided into fifths, or "quintiles," of the population, and the highest income group has been further divided into the top 5% and the next 15%. The 20% of families with the lowest incomes are considered the "lowest fifth," the next best-off 20% of families are the "second fifth," and so forth. The table also shows the trend in the "Gini ratio," a standard measure of inequality, bounded by zero and one, wherein higher numbers reveal greater inequality. Because the Census Bureau raised the "top codes" (i.e., the highest income levels it would record) in 1993, income shares beyond that year are less comparable to those of prior years (a factor we correct for in the next section).

The upper 20% of families received 47.2% of all income in 1997. The top 5% received more of total income, 20.7%, than the families in the bottom 40%, who received just 14.1%. In fact, the 1997 share of total income in each of the three lowest-income fifths—the 29.8% of total income going to the bottom 60% of families—was smaller than the 34.5% share this group received in 1979. As we will see in a later chapter providing international comparisons (Chapter 8), income in the United States is distributed far more unequally than in other industrialized countries.

The 1980s was a period of sharply increasing income inequality, reversing



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**TABLE 1.6** Shares of family income by income fifth and top 5%, 1947-97

| Year | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Breakdown of top fifth: Bottom 15% | Breakdown of top fifth: Top 5% | Gini ratios |
|---|---|---|---|---|---|---|---|---|
| 1947 | 5.0% | 11.9% | 17.0% | 23.1% | 43.0% | 25.5% | 17.5% | 0.376 |
| 1967 | 5.4 | 12.2 | 17.5 | 23.5 | 41.4 | 25.0 | 16.4 | 0.358 |
| 1973 | 5.5 | 11.9 | 17.5 | 24.0 | 41.1 | 25.6 | 15.5 | 0.356 |
| 1979 | 5.4 | 11.6 | 17.5 | 24.1 | 41.4 | 26.1 | 15.3 | 0.365 |
| 1989 | 4.6 | 10.6 | 16.5 | 23.7 | 44.6 | 26.7 | 17.9 | 0.401 |
| 1997* | 4.2 | 9.9 | 15.7 | 23.0 | 47.2 | 26.5 | 20.7 | 0.429 |
| *Percentage-point change* | | | | | | | | |
| 1947-67 | 0.4 | 0.3 | 0.5 | 0.4 | -1.6 | -0.5 | -1.1 | -0.018 |
| 1967-73 | 0.1 | -0.3 | 0.0 | 0.5 | -0.3 | 0.6 | -0.9 | -0.002 |
| 1973-79 | -0.1 | -0.3 | 0.0 | 0.1 | 0.3 | 0.5 | -0.2 | 0.009 |
| 1979-89 | -0.8 | -1.0 | -1.0 | -0.4 | 3.2 | 0.6 | 2.6 | 0.036 |
| 1989-97 | -0.4 | -0.7 | -0.8 | -0.7 | 2.6 | -0.2 | 2.8 | 0.028 |

* These shares reflect a change in survey methodology leading to greater inequality.

Source: Authors' analysis of unpublished Census data.

the trend toward less inequality over the postwar period into the 1970s. Between 1979 and 1989, the bottom 80% lost income share and only the top 20% gained. Moreover, the 1989 income share of the upper fifth, 44.6%, was far greater than the share it received during the entire postwar period and even higher than the 43% received in 1947. Even among the rich, the growth in income was skewed to the top: between 1979 and 1989, the highest 5% saw their income share rise 2.6 percentage points (from 15.3% to 17.9%), accounting for the bulk of the 3.2 percentage-point total rise in the income share of the upper fifth. The Gini ratio grew four times faster in the 1980s than in the 1970s, reflecting the acceleration of inequality over the decade.

The increase in inequality continued unabated over the 1989-96 period. For example, the share received by the top 5% grew from 17.9% in 1989 to 20.7% in 1997 (recall that part of this increase — as shown below, perhaps a third — is due to lifting the top code). Comparing the bottom two rows of the table reveals that the rate of share loss among the bottom 80% was slower than that of the 1980s. However, note that these two rows compare a 10-year to a seven-year period; correcting for this difference reveals that inequality grew at a similar



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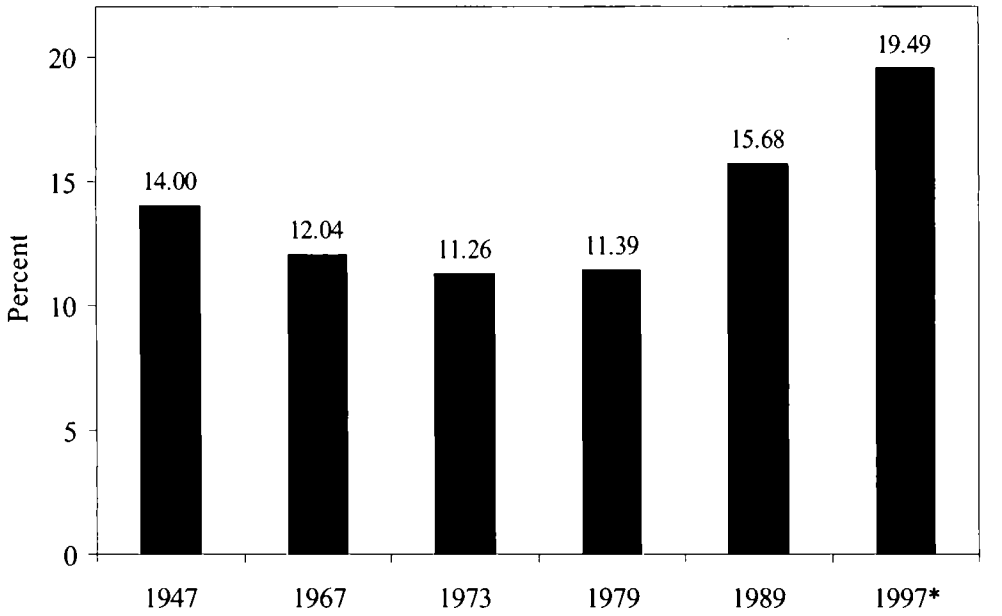
**FIGURE 1D** Ratio of family income of top 5% to lowest 20%, 1947-97




* This ratio reflects a change in survey methodology leading to increased inequality.

Source: Authors' analysis of U.S. Bureau of the Census data.

annualized rate in both periods. The Gini ratio also continued to increase at a similar rate in the 1990s as in the 1980s (accounting for the shorter time period from 1989 to 1996). The top fifth, and in particular the top 5%, continued to gain at the expense of everyone else, including the group in the 80-95th percentile range, whose income share fell 0.2 points in the 1990s.

The increase in the income gap between upper- and lower-income groups is illustrated in **Figure 1D**, which shows the ratio of the average incomes of families in the top 5% to the average income of those in the bottom 20% from 1947 to 1997. The gap between the top and the bottom incomes fell from 1947 to 1979 but grew to a historic high of 19.5 by 1997, reversing three decades of lessening inequality.

Another way of viewing this recent surge in income inequality is to compare the "income cutoff" (the income of the best-off family in each group) of families by income group, as in **Table 1.7**. By focusing on this measure, we are able to discuss income gains and losses for complete groupings of families (e.g., the bottom 40%).

Over the early postwar period, from 1947 to 1973, there was strong and even income growth across the income spectrum. From 1947 to 1967, for in-



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**TABLE 1.7** Real family income growth by income group, 1947-97, upper limit of each group (1997 dollars)

| Year | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | 95th percentile | Average |
|---|---|---|---|---|---|---|
| 1947 | $10,506 | $16,952 | $22,988 | $32,618 | $53,536 | $23,517 |
| 1967 | 18,167 | 29,823 | 39,992 | 54,827 | 88,094 | 38,914 |
| 1973 | 20,678 | 34,120 | 47,606 | 65,468 | 102,063 | 46,321 |
| 1979 | 21,388 | 35,169 | 49,825 | 68,607 | 110,064 | 48,402 |
| 1989 | 20,714 | 36,242 | 52,810 | 77,079 | 128,093 | 53,723 |
| 1997 | 20,586 | 36,000 | 53,616 | 80,000 | 137,080 | 56,902 |
| *Annual growth rate* | | | | | | |
| 1947-67 | 2.8% | 2.9% | 2.8% | 2.6% | 2.5% | 2.5% |
| 1967-73 | 2.2 | 2.3 | 2.9 | 3.0 | 2.5 | 2.9 |
| 1973-79 | 0.6 | 0.5 | 0.8 | 0.8 | 1.3 | 0.7 |
| 1979-89 | -0.3 | 0.3 | 0.6 | 1.2 | 1.5 | 1.0 |
| 1989-97 | -0.1 | -0.1 | 0.2 | 0.5 | 0.9 | 0.7 |

Source: Authors' analysis of U.S. Bureau of the Census data.

stance, the growth in the top value in each fifth ranged from the 2.5% annual pace obtained by the top 5% to the 2.9% annual pace obtained by those in the second fifth. Because incomes grew slightly faster for lower- and middle-income families than upper-income families (the top 5%) from 1947 through 1967, there was a general decline in income inequality, as shown by the falling Gini ratio in the previous table.

The pattern of income growth since 1973 has been far more uneven and far slower than in the earlier period. From 1973 to 1979 the fastest income growth was the 1.3% annual growth among the top 5% of families, which, though modest, was twice the 0.6% and 0.5% annual income growth among the first and second fifths. Incomes across the spectrum continued to grow slowly in the 1979-89 period, but the pattern of growth was even more unequal. The families with the lowest incomes actually lost ground from 1979 to 1989 (incomes fell 0.3% annually), while the top 5% accelerated to a 1.5% annual rate. In the most recent period, 1989-97, average annual growth slowed considerably, but inequality continued to increase, as the growth went mostly to families at the top of the income scale. The bottom 40% of families lost 0.1% per year, while the top 5% gained 0.9%.

**Figure 1E** presents a revealing picture of incomes growing together in the first 30 years of the postwar period and growing apart thereafter. The bars in



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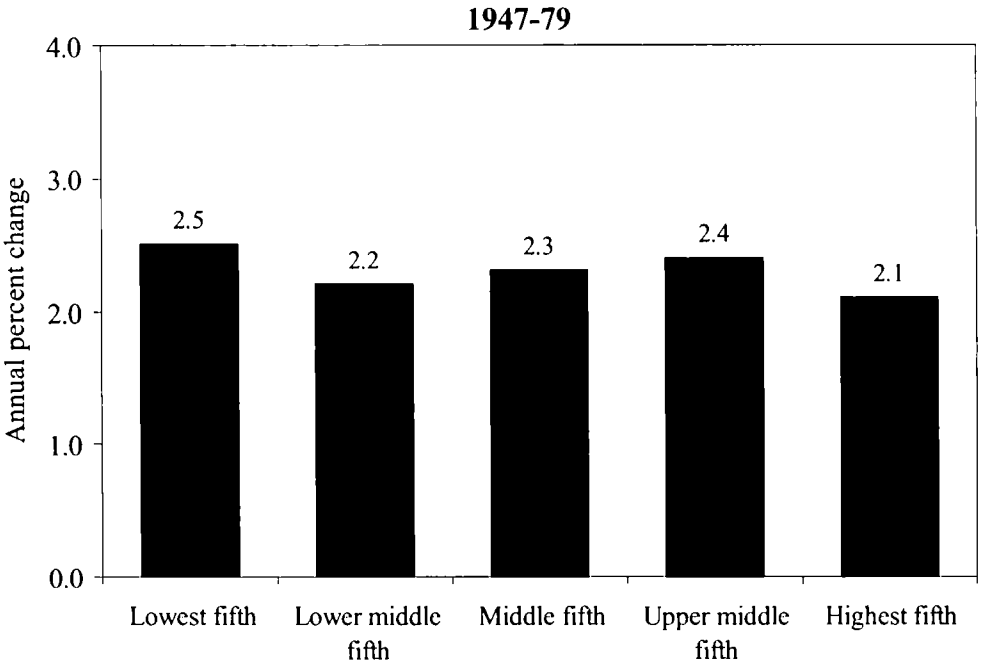
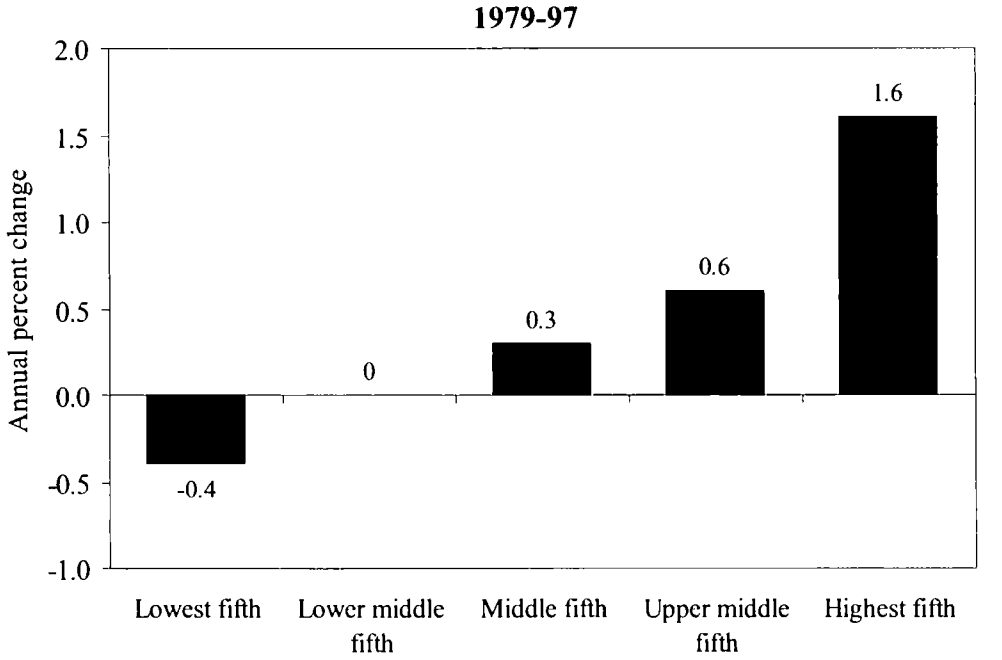
**FIGURE 1E** Family income, average annual change




Source: Authors' analysis of U.S. Bureau of the Census (various years).



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each panel represent the annual growth rate of average income by income fifth over the periods 1947-79 and 1979-96. The top panel, covering the years 1947-79, shows strong and even growth. In fact, over this period, growth was slightly faster at the bottom of the income scale relative to the top, i.e., growth was equalizing. The bottom panel shows a very different pattern. Since 1979, the annual growth of family income has been negative for the bottom fifth, falling 6.4% per year. Income growth has been flat for the next fifth and positive for the top three fifths. Note that between 1947 and 1979 income grew 0.4% per year more slowly in the top relative to the bottom fifth (found by subtracting one rate of growth from the other); since 1979, income has grown 2.0% more *quickly* in the top relative to the bottom fifth. Thus, the 1947-79 equalizing pattern of growth has sharply reversed in the post-1979 period.

## Counter-arguments to the evidence on income trends

A number of questions have been raised regarding the above evidence. First, Census data have undergone some important changes in the 1990s, and these changes have most likely imparted an upward bias to the levels and growth of income inequality in the measures published by the Census Bureau over the 1989-96 period. Thus, while we know that inequality has increased since the late 1980s, the changes in the primary data source (March CPS data) have previously left us uncertain as to the magnitude of the increase. Using data specially prepared by the Census to account for this difference, we address this issue in this section.

Second, some economists argue that consumption, a proxy measure for "permanent" income, is a better measure of family well-being than annual income. This raises the question of whether the inequality of consumption has increased along with that of income.

Finally, some economists argue that it is demographic, not economic, factors that are responsible for the growth and inequality problems documented above. This is an important distinction, because an incorrect diagnosis of the problem will lead to inappropriate policy responses. We explore the validity of this claim below.

### *How much has inequality really grown in the 1990s?*

Most government surveys of income data are "top coded," meaning that, for reasons of confidentiality, the values that respondents report are "capped" (i.e., values above the top code are simply assigned the same top-coded value). Beginning in 1993, these caps were significantly raised. Also, in 1995, the Census



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Bureau began to report more fully the earnings of the highest-paid workers (see Appendix B for a more detailed explanation). The impact of these changes is to raise the reported income levels of high earners from the 1996 survey relative to those from earlier years, before these changes went into effect. Thus, researchers have been unable to determine the precise magnitude of the increase in inequality from 1989 to, for example, 1996.

To remedy this measurement issue, **Table 1.8** presents data from a version of the Census Bureau's Current Population Survey dataset specifically prepared to be comparable over the two years 1989 and 1996. It reports average income by income fifth (the same measure underlying the growth rates shown in Figure 1E) and income shares (along with the Gini ratio). The top panel presents changes in average income by income fifth, with the top fifth separated into the 80-95th percentile, the 96-99th percentile, and the top 1%. The bottom panel shows income shares and the Gini ratio, as in Table 1.6.

The table corroborates the above findings that inequality continued to increase in the 1990s. While the increase is smaller once we correct for the change in survey procedure, the inequality-inducing pattern of growth is unmistakable. The average income of families in the first two fifths fell by 4.0%, while that of the middle fifth fell by 2.1%. The only growth that occurred was among the top 20% of families, and even that growth was concentrated in the top 5%. The fastest growth was among the very richest — the top 1% of families — whose incomes increased by 10.0% over this seven-year period.

The changes in income shares also reflect increasing income imbalances. Tracking the gains in the top panel, the only increase in shares — 1.8 percentage points — went to the top 20%, and the top 1% claimed fully one-third of this growth.

Figure 1E above showed that the ratio of the average family income of the top 5% to that of the bottom fifth grew by 3.4 points (19.1 compared to 15.7) from 1989 to 1996. These adjusted data (last column of panel 1) show a growth in this ratio of 2.0 points, about two-thirds that of the unadjusted data. Similarly, while the change in income shares at the bottom of the income scale is about the same from both data sources, the 1989-96 change among the top fifth is 0.4 points lower than that shown in Table 1.6. The Gini ratio grows two-thirds as fast in these data as the growth of this indicator taken from the last column of Table 1.6. This suggests, therefore, that about a third of the growth in family income inequality as presented in the Census Bureau's published series is driven by changes in the top-coding procedure. However, recall that neither these data nor the Census Bureau's series reflect the full gains going to the top 1%, because of both top codes that remain even in the adjusted data and the omission of capital gains.



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**TABLE 1.8** The growth of income inequality, 1989-96, using comparable data

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | 80 to 95% | 96-99% | Top 1% | Top 5%/ bottom fifth |
|---|---|---|---|---|---|---|---|---|---|
| **Average income** | | | | | | | | | |
| 1989 | $12,745 | $29,337 | $45,212 | $64,479 | $120,203 | $96,319 | $164,442 | $296,941 | 15.0 |
| 1996 | 12,234 | 28,164 | 44,254 | 64,037 | 125,039 | 97,740 | 177,436 | 326,777 | 17.1 |
| *Percent changes* | -4.0% | -4.0% | -2.1% | -0.7% | 4.0% | 1.5% | 7.9% | 10.0% | 2.0* |
| **Income shares** | | | | | | | | | *Gini ratio* |
| 1989 | 5.2% | 11.7% | 17.1% | 23.4% | 42.5% | 25.5% | 11.6% | 5.4% | 0.394 |
| 1996 | 4.9 | 11.1 | 16.6 | 23.0 | 44.4 | 26.1 | 12.3 | 6.0 | 0.411 |
| *Point changes* | -0.3 | -0.7 | -0.5 | -0.4 | 1.8 | 0.6 | 0.6 | 0.6 | 0.017 |

* Point change.

Source: Authors' analysis of specially constructed CPS March data; see table note for detailed explanation.

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Nevertheless, when examined in tandem with pre-1989 data from the previous section, these data suggest that income inequality proceeded to expand strongly in the 1990s, although it has grown somewhat more slowly — about two-thirds as fast — than in the 1980s.

### *Inequality as measured by consumption*

Some economists express doubts about analyses of income because the incomes of families fluctuate from year to year in response to special circumstances— a layoff, a one-time sale of an asset, and so on. As a result, a family's income may partially reflect transient events and not its economic well-being over the long term. In this view, consumption levels of families provide a better measure of inequality, since families typically gear their consumption to their expected incomes over the long term.

**Table 1.9**, which presents the ratio of consumption levels at different percentiles, permits a view of this final dimension of growing inequality. Over the 1970s, the distance between levels of consumption of families at the top and the middle of the distribution grew slightly, from 1.87 to 1.90. A countervailing trend (decreasing inequality) occurred among families at the 50th percentile relative to those at the 10th, but these changes were small .

The 1980s, however, saw a large increase in consumption inequality, mirroring the trend in income inequality shown above. As the ratios show, the top pulled away from the middle (the 90/50 ratio grew from 1.90 to 2.13), and the middle pulled away from the bottom (the 50/10 ratio grew from 2.01 to 2.31). Unlike the income data, these consumption data suggest a slight contraction of inequality since 1989 (this analysis is available only through 1993, however). Whether this contraction reflects a true shift in the trend is yet to be determined, but even with it, consumption inequality remains at a historically high level.

### *The impact of demographic changes on income*

It is often suggested that changes in the demographic composition of American families have been a major cause of the income problems documented above, implying a lesser role for economic causes such as wage decline. While it is unquestionably the case that the increased share of economically vulnerable families has put downward pressure on income growth, this process is a dynamic one that has not been constant over time. In addition, some demographic factors, such as the increase in educational attainment, have led to increased family income. It is important, then, to look at the net effect of the different type of demographic shifts in various time periods.

**Table 1.10** shows the impact of the following demographic factors on household income: age, education, family type, and race (all refer to the head of the



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**TABLE 1.9** Distribution of real consumption expenditure, 1972-93

| | Ratio of consumption between different percentiles* | | |
|---|---|---|---|
| Year | 90th/10th | 90th/50th | 50th/10th |
| 1972/73 | 3.89 | 1.87 | 2.08 |
| 1980/81 | 3.82 | 1.90 | 2.01 |
| 1989 | 4.92 | 2.13 | 2.31 |
| 1993 | 4.61 | 2.11 | 2.18 |

* Ratios reflect adjustment for family size using equivalency scales.

Source: Authors' analysis of U.S. Department of Labor.

household; households, unlike families, include one-person units). The challenge of this analysis is to quantify the impact of changes in these factors on income trends over time. For example, of the list of factors examined, the two with the largest impact are family type and education level. Over time, as seen in the bottom panel of Table 1.5, a demographic shift has occurred toward family types more likely to have low incomes, such as single-parent families or individuals living alone. A countervailing trend, however, has been the higher education levels of heads of households, a demographic trend that should lead to higher income levels over time.

Which of these two factors — educational upgrading or the shift to lower-income family types — has had a larger impact, and how has the impact varied by income level? (Race and age, while important, have played a secondary role in income trends.) Contrary to the conventional wisdom, which has typically assigned the primary role to changes in family type, there is clear evidence that, while the shift to less well-off families has put downward pressure on incomes, educational upgrading has more than compensated for this effect. Most importantly, on net, during the 1979-96 period when income inequality was increasing most quickly, the demographic factors considered here led to increasing, not falling, household incomes. Thus, explanations that depend on demographic change to explain income decline should be discounted.

The numbers in Table 1.10 show the percent changes in real household income from 1969 to 1996, along with the changes due to these specific demographic factors. For example, the first panel shows that, among families in the lowest fifth of the income scale, the shift to lower-income family types led to a

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**TABLE 1.10** The impact of demographic change on household income, 1969-96, by income fifth

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| **Income change (%), actual, 1969-79** | 8.1% | 0.8% | 4.8% | 10.0% | 10.4% | 8.1% |
| Change due to: | | | | | | |
| Age | -1.0 | -1.6 | -1.8 | -1.8 | -1.8 | -1.7 |
| Education | 5.6 | 5.9 | 5.4 | 4.5 | 4.6 | 4.9 |
| Family type | -15.4 | -12.0 | -8.8 | -5.9 | -3.6 | -6.5 |
| Race | -1.3 | -1.1 | -0.8 | -0.5 | -0.4 | -0.6 |
| Total demographic effect* | -8.9 | -7.5 | -5.4 | -2.6 | 0.5 | -2.6 |
| Income change (%), demographics constant** | 17.0 | 8.3 | 10.3 | 12.6 | 9.9 | 10.8 |
| **Income change (%), actual, 1979-89** | 2.2 | 3.3 | 4.3 | 7.8 | 16.5 | 10.3 |
| Change due to: | | | | | | |
| Age | 1.3 | 0.6 | 0.6 | 0.5 | -0.1 | 0.3 |
| Education | 4.9 | 5.3 | 4.7 | 4.5 | 4.6 | 4.7 |
| Family type | -5.6 | -5.4 | -4.1 | -3.0 | -2.1 | -3.2 |
| Race | -1.5 | -1.3 | -0.9 | -0.5 | -0.4 | -0.6 |
| Total demographic effect* | -1.1 | -0.2 | 0.6 | 1.4 | 2.6 | 1.5 |
| Income change (%), demographics constant** | 3.4 | 3.6 | 3.7 | 6.4 | 13.9 | 8.7 |
| **Income change (%), actual, 1989-96*** ** | -2.6 | -5.3 | -3.6 | -0.6 | 18.0 | 6.7 |
| Change due to: | | | | | | |
| Age | -0.1 | 0.5 | 1.0 | 1.1 | 1.2 | 1.0 |
| Education | 5.8 | 6.7 | 6.2 | 5.1 | 4.8 | 5.3 |
| Family type | -4.8 | -4.5 | -3.5 | -2.5 | -2.1 | -2.8 |
| Race | -2.2 | -1.6 | -0.9 | -0.5 | -0.5 | -0.8 |
| Total demographic effect* | 0.2 | 1.7 | 2.5 | 2.9 | 4.2 | 3.2 |
| Income change (%), demographics constant** | -2.7 | -7.0 | -6.1 | -3.5 | 13.8 | 3.5 |

**Addendum: Household income levels by fifth, 1969-96** (1996 dollars)

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| 1969 | $8,289 | $21,229 | $33,493 | $46,742 | $80,193 | $37,989 |
| 1979 | 8,964 | 21,390 | 35,109 | 51,415 | 88,497 | 41,075 |
| 1989 | 9,165 | 22,103 | 36,626 | 55,442 | 103,105 | 45,288 |
| 1996 | 9,000 | 21,284 | 35,689 | 55,193 | 115,801 | 47,393 |

* Components do not sum to the aggregate effect due to interactions between the groups (see table note for further explanation).

** This row—the actual change minus the total demographic effect—shows the impact of income changes within each demographic group.

*** Percent changes are given as 10-year rates so as to be comparable with above panels.

Source: Authors' analysis of March CPS data.



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15.4% decline in income from 1969 to 1979. Note also that this effect declines as we move up the income scale; the negative effect of family type in the top fifth was only 3.6% over this period. As expected, however, educational upgrading lifted incomes between 4.5% and 5.9%. The next-to-last row of the panel, which gives the impact of each of the above demographic factors taken as a whole, shows that, on net, the impact of demographic change was negative for all but the highest income group (implying that demographic change served to increase inequality over this period).

Note, however, that the average incomes of all but the second fifth grew significantly over this period (top row). Thus, despite the downward pressure of the negative factors (primarily family type), incomes *within* each demographic group grew enough to offset these losses. The last row of each panel, which shows the percent of income growth within each demographic group by income fifth, quantifies this point. These changes are net of demographic effects and thus represent the impact of economic changes such as real wage trends or the growth of income inequality on household incomes.

During the 1970s, household incomes within demographic groups grew strongly and were equalizing in nature. Net of demographic change, the income of the bottom fifth of households grew 17.0%, while that of the top fifth grew 9.9%. Thus, over the period when demographic pressure was exerting its strongest negative effects, favorable economic growth among low-income households was great enough to more than offset the unfavorable demographic trends. (Chapter 6 finds similar dynamics regarding the impact of demographic change on poverty rates over this period.)

Over the 1980s, the impact of family type, though still negative, was less a factor than in the previous period for each income group, particularly for the least well-off. For example, while shifts in family structure lowered the average income of the bottom fifth by 15.4% over the 1970s, continuing shifts lowered that group's average income by 5.6% in the 1980s. For the middle fifth, the comparable changes were 8.8% in the 1970s and 4.1% in the 1980s. Conversely, the positive impact of educational upgrading fell only slightly for each income group; for the bottom fifth they fell from 5.6% in the 1970s to 4.9% in the 1980s. Thus, in the 1980s, the net impact of demographics (second panel, second-to-last row) was notably smaller than in the previous period, with incomes for the bottom lowered by 1.1% and raised at the top by 2.6%.

Unlike the prior period, however, income growth net of demographic change (i.e., within demographic groups) slowed considerably for all but the wealthiest households. For example, the last row of the middle panel shows that, holding demographics constant, incomes grew by 3.4% for the bottom fifth, 3.7% for the middle fifth, and 13.9% for those at the top of the income scale. Thus, de-



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spite the decelerated negative impact of changes in family type, economic growth shifted in such a way as to dampen the growth of income for low-income households within each demographic category.

Over the most recent period, 1989-96, the impact of changes in family type has continued to decline while that of education has slightly increased (the values in this panel are given as 10-year rates so as to be comparable with the earlier periods). Thus, in this time period, net changes in demographics were actually *positive* for each group, though less so at the bottom of the income scale. In the bottom quintile, the negative impacts of family type and race were essentially reversed by the positive impact of education.

At the same time, however, nondemographic factors such as wage decline led to real average income losses for the bottom 80% of households. In the prior period (the 1970s), income growth net of demographic change was slow but positive, meaning low- and middle-income families made some economic progress, controlling for demographic changes (though less so than the 1960s). In the 1990s, within-group incomes fell, as much as 7.0% for households in the second fifth. Thus, most households were unable to take advantage of the positive impact that demographic changes had on their incomes in the 1990s, as their within-demographic-group losses outpaced these gains.

In sum, the message from Table 1.10 is that demographic factors do not account for the scope of income problems documented thus far. Nor do they help explain why income trends were slower and more unequal after 1979 relative to earlier periods. Over the 1970s, while the shift to less-well-off family types was putting significant downward pressure on income growth, incomes grew at a strong pace both at the top (10.4%) and the bottom (8.1%) of the income scale. In the 1990s, however, when changes in family type had the smallest negative impact of each of the time periods we examine, income growth was highly unequal, growing 18.0% at the top and falling 2.6% at the bottom. Additionally, while the negative impact of changes in family type was tapering off, the positive effect of educational upgrading persisted at similar levels in each time period.

## The 'hollowing out' of the middle class

Another dimension of income growth is the proportion of the population that has low, middle, and high incomes. Two factors determine the distribution of the population at various income levels: the rate of growth of average income and changes in income equality. As average income grows (holding inequality constant), there will be a greater proportion of the population at higher income levels. However, if inequality grows such that the low-income population re-



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**TABLE 1.11** Distribution of persons, households, and families by income level, 1969-97

| | 1969 | 1979 | 1989 | 1997 | 1969-79 | 1979-89 | 1989-97 |
|---|---|---|---|---|---|---|---|
| Under $25,000 | 27.3 | 25.8 | 25.4 | 25.5 | -1.5 | -0.4 | 0.1 |
| $25,000 to $75,000 | 62.6 | 58.4 | 53.5 | 51.5 | -4.2 | -4.9 | -2.0 |
| Over $75,000 | 10.1 | 15.8 | 21.1 | 22.8 | 5.7 | 5.3 | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | | |
| **Household incomes** | | | | | | | |
| Under $25,000 | 35.7 | 35.3 | 33.6 | 34.0 | -0.4 | -1.7 | 0.4 |
| $25,000 to $75,000 | 55.6 | 52.0 | 49.5 | 47.7 | -3.6 | -2.5 | -1.8 |
| Over $75,000 | 8.7 | 12.7 | 17.0 | 18.4 | 4.0 | 4.3 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | | |
| **Persons** (income relative to the median) | | | | | | | |
| Less than 50 | 18.0 | 20.1 | 22.1 | 22.3 | 2.1 | 2.0 | 0.2 |
| 50-200 | 71.2 | 68.0 | 63.2 | 61.6 | -3.2 | -4.8 | -1.6 |
| 200 or more | 10.8 | 11.9 | 14.7 | 16.1 | 1.1 | 2.8 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | | | |

Source: Authors' analysis of U.S. Bureau of the Census.

ceives an unusually low proportion of the income growth and the high-income population obtains an unusually large proportion, then a rise in average income is unlikely to translate into a general upward movement of the population to higher income levels. The following table reveals that, as expected, economic growth has led to a larger share of families with higher incomes, both in absolute and relative terms. However, the growth of inequality, particularly over the 1990s, has also led to increases in the share of families with low incomes. The combination of these two patterns means that fewer families reside in the middle class.

The first two panels of **Table 1.11** show the proportion of families and households (which include one-person units) with low, middle, and high incomes in 1969, 1979, 1989, and 1997. The definition of middle income has been arbitrarily set as a range from $25,000 to $75,000. Over the 1969-89 period, the proportion of families and households with low and middle incomes declined as the shares with incomes beyond $75,000 increased. Income losses since 1989 have led to a downward shift in household income, as 0.4% of households have moved into the lower income group, and the share of families in the top income group has increased by 1.4%.



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The third panel of Table 1.11 examines the incomes of people — single and in families — according to the per capita incomes of their families (size-adjusted), with a single person given their individual income. In this analysis, the income of persons is measured relative to the median. Thus, unlike the above panels, which fix the income brackets in real dollar terms, the brackets for the income categories in this panel move with the median income. This approach provides more important insights into inequality, because it measures the relative, as opposed to the absolute, changes in family incomes. Thus, in the first panel, the absolute income level of a low-income family may grow such that they cross from the $25,000 category into the middle group. But if their income grows more slowly than that of the median, they will still fall behind relative to more affluent families. The bottom panel shows evidence of precisely this pattern.

From 1979 forward, more than one-fifth of the population lived in households with income below half of the median. Over both the 1970s and 1980s, this share grew by about two percentage points. As we have stressed throughout the chapter, median income fell over the 1990s, as well as the income levels of those below the median. This led to a slightly larger share of persons in low-income families, as measured by absolute dollar cutoffs (top two panels), while the share of *relatively* low-income families changed little. At the other end of the income scale, there is further evidence of the top pulling away from the rest of the pack. In 1979, 11.9% of the population lived in households whose income was at least 200% of the median; by 1996, that share had increased to 16.1%, an increase of 1.4 percentage points.

## Greater capital incomes, lower labor incomes

The fortunes of individual families depend heavily on the sources of their incomes: labor income, capital income, or government assistance. For instance, one significant reason for the unequal growth in family incomes in the 1979-89 period was an increase in the share of personal total income that was in the form of capital incomes (such as rent, dividends, interest payments, capital gains) and a smaller share earned as wages and salaries. Since most families receive little or no capital income, this shift had a substantial impact on income distribution.

**Table 1.12** presents data that show the sources of income for families in each income group in 1989. The top fifth received a larger share of its income (13.8%) from financial assets (capital) compared to the other 80% of the population. For instance, the top 1% received 41.0% of its income from financial assets. The other income groups in the upper 10% received from 12% to 19% of



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**TABLE 1.12** Source of family income for each family income group, 1989

| Income group | Labor | Capital* | Government transfer | Other | Total |
|---|---|---|---|---|---|
| **All** | 75.3% | 12.9% | 6.7% | 5.1% | 100.0% |
| **Bottom four-fifths** | | | | | |
| First | 46.3% | 4.6% | 39.9% | 9.1% | 100.0% |
| Second | 69.6 | 7.7 | 14.3 | 8.4 | 100.0 |
| Middle | 79.1 | 8.0 | 6.7 | 6.2 | 100.0 |
| Fourth | 83.4 | 8.0 | 3.9 | 4.7 | 100.0 |
| **Top fifth** | 80.0% | 13.8% | 2.0% | 4.2% | 100.0% |
| 81-90% | 83.6 | 9.6 | 2.4 | 4.3 | 100.0 |
| 91-95% | 81.8 | 12.3 | 1.9 | 4.0 | 100.0 |
| 96-99% | 74.3 | 19.4 | 1.6 | 4.6 | 100.0 |
| Top 1% | 57.6 | 41.0 | 0.4 | 1.1 | 100.0 |

* Includes rent, dividend, interest income, and realized capital gains.

Source: Authors' analysis.

their income from capital. In contrast, the bottom 80% of families relied on capital income for less than 8% of their income in 1989.

Those without access to capital income depend either on wages (the broad middle) or on government transfers (the bottom) as their primary source of income. As a result, the cutback in government cash assistance primarily affects the income prospects of the lowest 40% of the population, but particularly the bottom fifth (see Chapter 6). For instance, roughly 40% of the income of families in the bottom fifth is drawn from government cash assistance programs (e.g., Aid to Families With Dependent Children, unemployment insurance, Social Security, Supplemental Security Income). The income prospects of families in the 20th to 99th percentile, on the other hand, depend primarily on the level and distribution of wages and salaries.

The shift in the composition of personal income toward greater capital income is shown in **Table 1.13**. Over the 1979-89 period, capital income's share of market-based income (personal income less government transfers) shifted sharply upward, from 16.1% to 21.0%. This shift toward capital income was slightly reversed over the 1989-97 period as interest rates and, therefore, interest income fell. In 1997, however, capital income's share of 20.4% was still significantly above its 1979 value. Correspondingly, the share of labor income, including wages and all nonwage compensation (benefits), was still significantly

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**TABLE 1.13** Shares of market-based personal income by type, 1959-97

| | Shares of income | | | | |
|---|---|---|---|---|---|
| Income type* | 1959 | 1973 | 1979 | 1989 | 1997 |
| **Total capital income** | 14.1% | 14.4% | 16.1% | 21.0% | 20.4% |
| Rent | 4.7 | 2.5 | 1.4 | 1.3 | 2.4 |
| Dividends | 3.4 | 2.7 | 2.7 | 3.2 | 5.3 |
| Interest | 6.0 | 9.2 | 12.0 | 16.5 | 12.6 |
| **Total labor income** | 72.0% | 74.1% | 74.0% | 70.3% | 70.7% |
| Wages & salaries | 69.2 | 69.3 | 67.3 | 63.6 | 63.8 |
| Fringe benefits | 2.8 | 4.8 | 6.7 | 6.7 | 6.9 |
| **Proprietor's income*** | 13.8% | 11.4% | 9.9% | 8.7% | 9.0% |
| **Total market-based personal income **** | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| **Realized capital gains** | n.a. | n.a. | 1.5% | 3.5% | 5.0% |

* Business and farm owners' income.
** Total of listed income types.

Source: Authors' analysis of NIPA data.

lower in 1997 than in 1979, 70.7% versus 74.0%, despite a slight increase over the 1989-97 period.

This shift away from labor income and toward capital income is unique in the postwar period and is partly responsible for the recent surge in inequality. Since the rich are the primary owners of income-producing property, the fact that the assets they own have commanded an increasing share of total income automatically leads to income growth that is concentrated at the top.

It is difficult to interpret changes in proprietor's income (presented in Table 1.13), because it is a mixture of both labor and capital income. That is, the income that an owner of a business (or farmer) receives results from his or her work effort (labor income) and his or her ownership (capital income) of the business or farm. To the extent that the shrinkage of proprietor's income results from a shift of people out of the proprietary sector (e.g., farming) and into wage and salary employment, there will be a corresponding increase in labor's share of income (e.g., as farm income is replaced by wage income). This shift out of proprietor's income thus helps to explain a rising labor share in some periods. However, labor's share of income fell from 1979 to 1989 despite an erosion of the share of proprietor's income from 9.9% to 8.7%.



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This analysis of personal income understates the shift toward capital income in the 1979-97 period because the data in Table 1.13 do not include the growth of realized capital gains, the profit made when capital assets are sold. Capital gains primarily accrue to the highest-income families since they control most of the wealth (see Chapter 5). Income from capital gains grew strongly in the 1980s (from 1.5% of personal income to 3.5%) and 1990s (up to 5.0%), and thus the share of capital income has grown more strongly in the 1979-89 and 1989-97 periods than is shown in the top panel of Table 1.13. In fact, the inclusion of capital gains in the national income accounts would show an increase in the capital income share in the period 1989-97.

From the point of view of national income (incomes generated by the corporate, proprietor, and government sectors), one can also discern a strong shift away from labor income toward capital income **(Table 1.14)**. For instance, labor's share of national income fell from 73.5% in 1979, to 71.9% in 1989, and to 70.8% in 1996. A closer look at the underlying data, however, suggests an even more significant shift away from labor income. First, labor's share of national income rose steadily from 1959 to 1979. One reason for the expanding share of labor income was the steady expansion of the government/nonprofit sector. When the government/nonprofit sector grows, there is a tendency for labor's share of income to grow, since this sector generates *only* labor income and no capital income. For example, the growth of the government/nonprofit sector from 18.3% of national income in 1979 to 19.3% in 1989 necessarily added 1.0 percentage points to labor's share of national income (other things remaining equal). Labor's share of national income also grows as the proprietary sector (farm and nonfarm unincorporated businesses) shrinks, as it did from 1959 to 1979, because labor's share of income in that sector is relatively low (about one-third in 1979). When resources shift from a sector with a low labor share of income, such as the proprietor's sector, to sectors with a higher labor share (all of the other sectors), the share of labor income in the economy necessarily rises. Thus, the changing composition of income across organizational sectors (expanding government, shrinking proprietors) provides momentum for an increase in labor's share of national income and has done so for the entire postwar period.

This analysis suggests that the question to be asked is not only why did labor's share of income fall since 1979, but also why did labor's share of national income not continue to rise over the 1979-96 period, as it had earlier? The failure of labor's share to grow stems primarily from the unique decline in labor's share of the corporate and business sector between 1979 and 1997, reversing the tendency toward more labor income from the 1960s to the 1970s. This is most clearly seen in the bottom panel of Table 1.14 and in **Figure 1F**, which shows the division of incomes in the corporate sector. There, labor's share fell from

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**TABLE 1.14** Shares of income by type and sector, 1959-97

| | Shares of domestic national income | | | | | |
|---|---|---|---|---|---|---|
| Sector | 1959 | 1973 | 1979 | 1989 | 1996 | 1997 |
| **National income all sectors** | | | | | | |
| Labor | 68.4% | 72.6% | 73.5% | 71.9% | 70.8% | n.a. |
| Capital | 18.9 | 16.9 | 17.5 | 19.9 | 20.8 | n.a. |
| Proprietor's profit | 12.6 | 10.4 | 9.0 | 8.2 | 8.3 | n.a. |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | n.a. |
| **Corporate and business sector** | | | | | | |
| Labor | 44.2% | 48.2% | 50.5% | 48.3% | 47.0% | n.a. |
| Capital | 18.7 | 15.9 | 16.0 | 17.8 | 19.7 | n.a. |
| Total | 62.9 | 64.1 | 66.5 | 66.1 | 66.7 | n.a. |
| **Proprietor's sector** | | | | | | |
| Labor | 9.0% | 5.2% | 4.7% | 4.2% | 4.6% | n.a. |
| Capital | 0.3 | 1.0 | 1.4 | 2.2 | 1.1 | n.a. |
| Proprietor's profit | 12.6 | 10.4 | 9.0 | 8.2 | 8.3 | n.a. |
| Total | 21.9 | 16.6 | 15.2 | 14.6 | 14.0 | n.a. |
| **Government/ monprofit sector** | | | | | | |
| Labor | 15.2% | 19.2% | 18.3% | 19.3% | 19.2% | n.a. |
| Capital | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | n.a. |
| Total | 15.2 | 19.2 | 18.3 | 19.3 | 19.2 | n.a. |
| ADDENDUM | | | | | | |
| **Shares of corporate-sector income*** | | | | | | |
| Labor | 78.3% | 82.0% | 82.6% | 81.6% | 78.9% | 78.4% |
| Capital | 21.7 | 18.0 | 17.4 | 18.4 | 21.1 | 21.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

* Does not include sole proprietorships, partnerships, and other private noncorporate businesses. The corporate sector, which includes both financial and nonfinancial corporations, accounted for 58% of national income in 1989.

Source: Authors' analysis of NIPA data.



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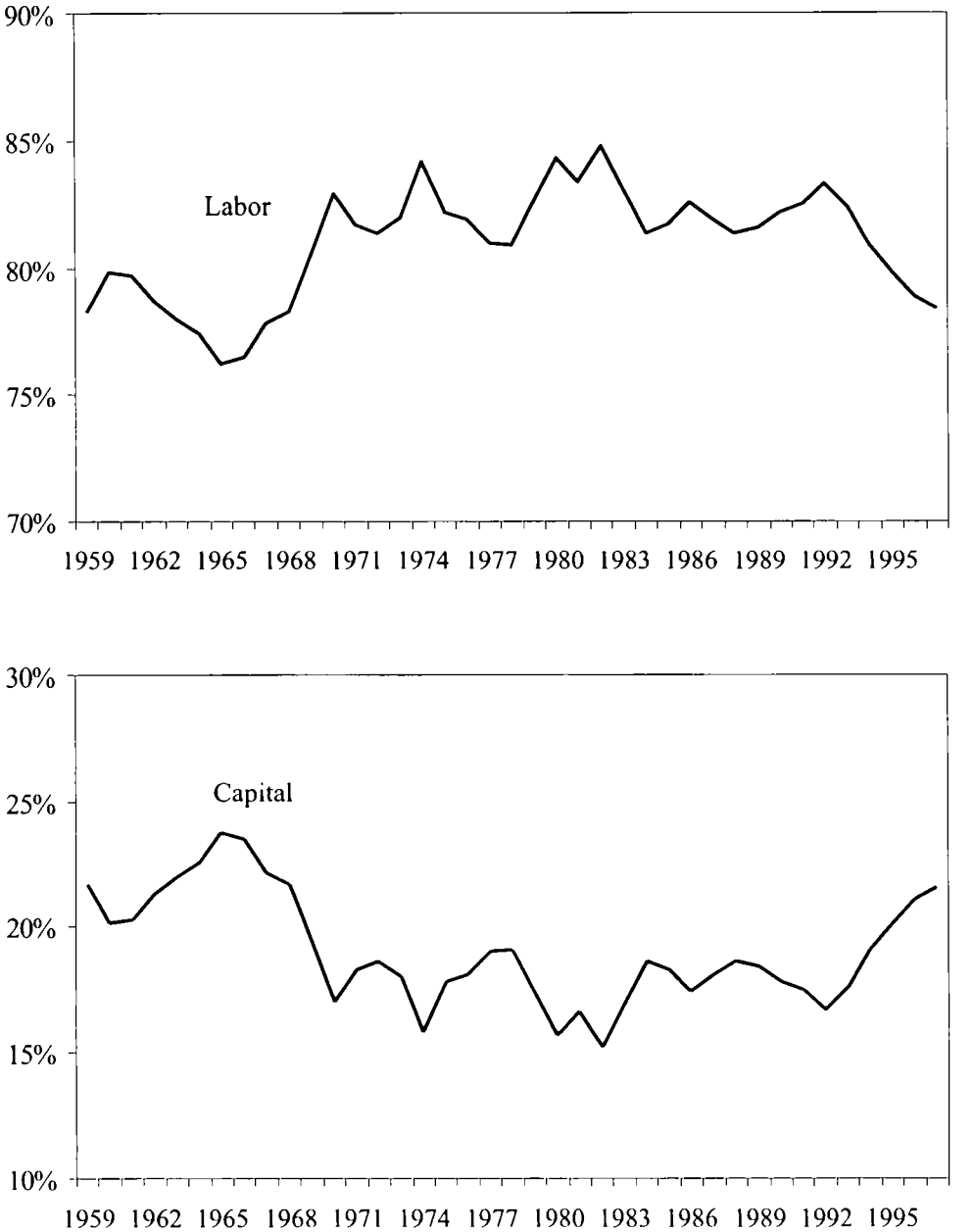
**FIGURE 1F** Income shares in the corporate sector, 1959-97




Source: Authors' analysis of NIPA data.



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82.6% in 1979, to 81.6% in 1989, and to 78.4% in 1997. These data suggest that there has been a shift away from labor income in the private sector (both corporate and proprietor) that does not show up in national income because of the growth of the labor-intensive government/nonprofit sector.

How important is the shift in the shares of labor and capital income? Between 1979 and 1997, labor's share in the corporate sector fell 4.2 percentage points. A return to the 1979 labor share would require average hourly compensation to be 5.4% greater (82.6 divided by 78.4, less 1), a compensation growth equal to that typically achieved over 10 years, or more than half of the actual growth from 1979-96 (see Chapter 3). Similarly, the shift of income from labor to capital lowered compensation growth by 4.1% over the 1989-97 period. These calculations illustrate that the shift toward greater capital income shares has had substantial implications for wage and compensation growth.

An examination of labor and capital income shares, however, cannot fully determine whether there has been a redistribution of income from labor to capital, or vice versa. This type of analysis assumes that, if labor and capital shares remain constant, then there has been no redistribution. Such an analysis is too simple for several reasons. First, in contrast to most topics in economics, such an analysis makes no comparison of actual outcomes relative to what one might expect given a model of what drives labor and capital income shares. This means we need to look at the current period relative to earlier periods and examine variables that affect income shares. Several trends suggest that, other things being equal, capital's share might have been expected to decline and labor's share to rise. One reason for this expectation is that there has been a rapid growth in education levels and labor quality that would tend to raise labor's share. The primary trend, however, that would tend to lessen capital's share (and increase labor's share) is the rapid decline in the capital-output ratio since the early 1980s (see **Table 1.15**). This fall in the ratio of the capital stock to private-sector output implies that capital's role in production has lessened, suggesting that capital's income share should have fallen in tandem.

Rather than fall, as we have seen the share of capital income has risen: this is due to the rapid growth in the return to capital, before- and after-tax, starting in the late 1980s and continuing steadily through 1997 (Table 1.15 and **Figure 1G**). That is, the amount of before-tax profit received per dollar of assets (i.e., the capital stock) has grown to its highest levels since the mid-1960s, while the after-tax return on capital is as high as in any year since 1959 (the earliest year for which a measure is available). The relationship between the return to capital and capital's share of income is illustrated in the accompanying box.

As discussed in the Introduction, this large increase in profitability does not correspond to a growth in efficiency, as measured by the ongoing growth of



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**TABLE 1.15** Profit rates and shares at business cycle peaks, 1959-97

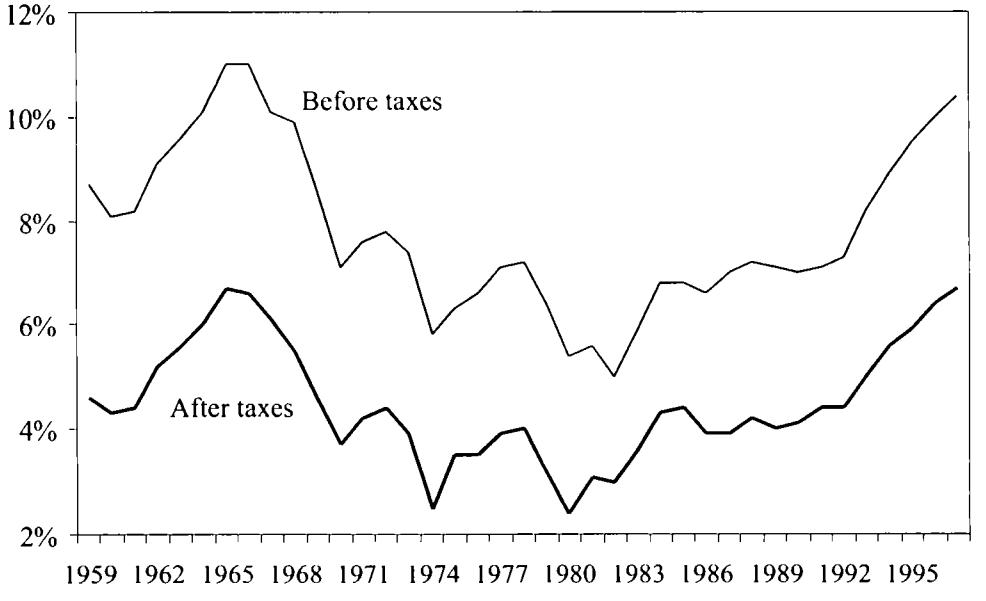
| | Business cycle peaks | | | | |
|---|---|---|---|---|---|
| Corporate sector | 1959 | 1973 | 1979 | 1989 | 1997 |
| **Profit-rates*** | | | | | |
| Pre-tax | 8.7% | 7.4% | 6.4% | 7.1% | 10.4% |
| After-tax | 4.6 | 3.9 | 3.2 | 4.0 | 6.7 |
| **Income shares** | | | | | |
| Profit share** | 21.7% | 18.0% | 17.4% | 18.4% | 21.6% |
| Labor share | 78.3 | 82.0 | 82.6 | 81.6 | 78.4 |
| Total corporate income | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Capital-output ratio** | 2.05 | 1.98 | 2.23 | 2.08 | 1.68 |

* "Profit" is all capital income. This measure, therefore, reflects the returns to capital per dollar of assets.

** "Profit share" is the ratio of capital income to all corporate income.

Source: Authors' analysis of NIPA and FRB data.

**FIGURE 1G** Corporate sector profit rates, 1959-97




Source: Authors' analysis of NIPA and FRB data.



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## RISING PROFIT RATES, CONSTANT PROFIT SHARE

There has been some confusion as to the difference between a rise in the *profit rate,* or return to capital (which has risen dramatically in the last 15 years), and a rise in *capital's share of income,* which has grown less. The following exercise is designed to show how these two rates differ and how each can rise or fall at its own pace.

Income is the sum of the returns to capital and labor. It can be expressed in the following equation:

$$(K * r) + (W * L) = Y$$

where K is the capital stock, r is the rate of return on capital (the profit rate), W is the average hourly wage, L is the number of labor hours, and Y is income.

Capital's share of income can be calculated by dividing capital income, K * r, by total income, Y. If the capital share remains constant, then the quantity (K * r)/Y doesn't change (nor does the labor share, (W * L)/Y). Capital's share, (K * r)/Y, can also be written as (K/Y) * r, where the quantity K/Y is equal to the ratio of the capital stock to total income. If K/Y falls, as it has over the last 10 years, then r can rise a great deal, even if capital's share remains constant.

For example, if K = $2,000, r = .05, and Y = $1,000, then the capital share of income would be 10%:

$$(K * r)/Y = (\$2{,}000 * .05)/\$1{,}000 = \$100/\$1{,}000 = .10$$

If the capital stock fell to $1,000 (so that K′ = $1,000), the profit rate rose to 10% (so that r′ = .10), and income remained unchanged (Y′ = $1,000), the capital share would still be 10%:

$$(K' * r')/Y' = (\$1{,}000 * .10)/\$1{,}000 = \$100/\$1{,}000 = .10$$

In this example, the profit rate doubles, but the capital share of income remains the same because the capital stock has fallen 50%.

Over the last 15 years, the fall in the capital-output ratio has muted the rise in capital's share of income. From 1979 to 1997 the capital-output ratio fell 25% (from 2.23 to 1.68) while the "profit rate," or return to capital, rose from 6.4% to 10.4% (a 62.5% rise). The combined effect of these two trends was to raise capital's income share from 17.4% to 21.6%.

productivity in the economy. That is, this higher profitability has not been a payoff for enhanced private sector efficiency. Rather, higher profitability in the current context implies a larger flow of income to owners of capital out of the same steady stream of income (productivity) that the economy has been generating for several decades.

This growth in profitability has left less room for wage growth, or it might be considered the consequence of businesses successfully being able to restrain (or impose) slow wage growth as sales and profits grew in recent years. If the return to capital in 1997 (10.4%) had been at the average of the cyclical peaks of



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1959, 1973, and 1979 (7.5%), then hourly compensation would have been 7.7% higher in the corporate sector in 1997. This is a large loss: its impact on the wages of the typical worker is greater than the impact of the shift to services, globalization, deunionization, or any of the other prominent causes of growing wage inequality (which are discussed in Chapter 3).

## Increased work by wives cushions income fall and counteracts inequality

Family earnings growth has not only been slow and unequal, it has also come increasingly from greater work effort — from a rise in the number of earners per family and in the average weeks and weekly hours worked per earner. Thus, "working longer for less" has become a significant source of family stress into the 1980s and 1990s. In this section we examine this phenomenon from the perspective of married-couple families with a prime-age (25-54-year-old) family head. (We exclude families headed by elderly persons to avoid the effect of retirement on hours of work.)

As is well known, the largest increase in work effort in our labor market has come from the long-term increase in female participation in the labor force. In part, this stems from the fact that the impact of historical conventions that once served to reduce female economic independence has lessened, and sex discrimination has probably become less severe. Neither has disappeared, but these changes represent a positive social/economic evolution of women's integration into the labor force.

At the same time, for many families, the increased work effort of their female members (who were either out of the paid labor force or working few hours) has been the only way to keep their incomes from sliding. (Although women have long been the major contributors to nonmarket work, "work" in this section refers exclusively to labor market employment.) As will be detailed in Chapter 3, this increased work effort has occurred simultaneously with a fall in real hourly wages for men and for some groups of women over the decade. The result has been increases in annual earnings primarily through more work rather than through higher hourly wages.

This trend is troublesome for several reasons. As the 1990s results will show, depending on increased work effort as the primary source of income growth is self-limiting, because it can go on only until all adult (or even teen) family members are full-time, full-year workers. The slowdown in the growth in women's labor force participation in recent years may even, in fact, signal the near exhaustion of this type of income growth. Below, we present evidence of this con-



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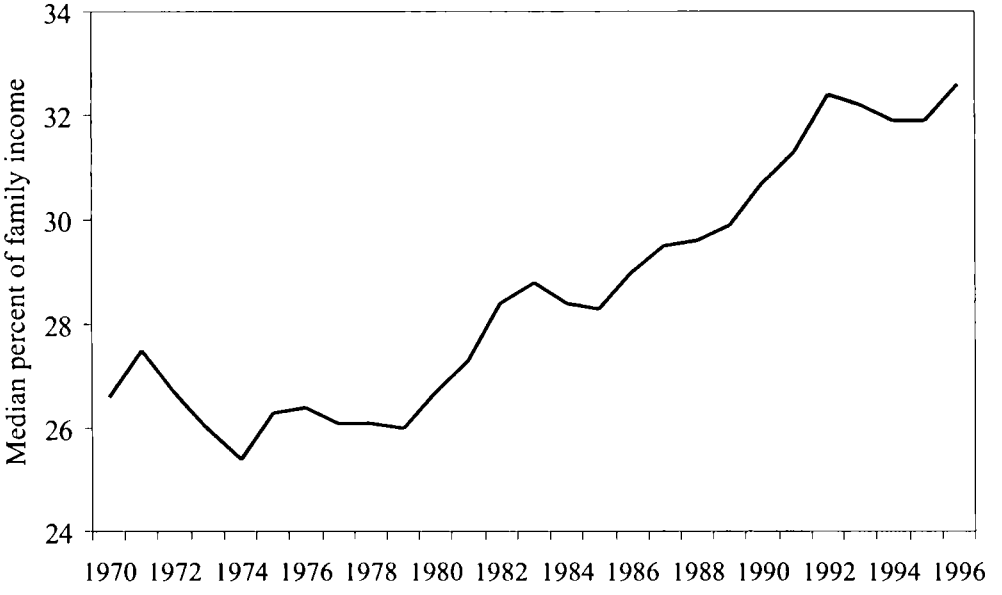
**FIGURE 1H** Working wives' contribution to family income, 1970-96




Source: Hayghe (1993) and unpublished updates.

jecture: wives' hours of market work, after growing sharply over the 1980s, grew significantly more slowly over the 1990s, and they even fell for families in the bottom income fifth. Moreover, there are significant costs and problems associated with this growth strategy, one of the most significant being the lack of adequate, affordable child care.

Thus, the problem is not that more women or mothers are working but that many are doing so in part to maintain family incomes in the face of lower real wages. Increased work elicited through falling real wages is a sign of poor performance of the economy. In addition, families are clearly worse off if, to obtain higher incomes, they must work more hours rather than rely on regular pay increases.

Married-couple families (76.3% of all families in 1996, Table 1.5) are most able to increase income through greater work effort because they have two potential adult workers. Single-parent families and individuals, however, can increase work effort only by having the adult work more weekly hours and/or more weeks in a year. It is for this reason that we focus first on the greater work hours of prime-age, married couples.

**Figure 1H**, which graphs the median percent of total family income contributed by wives' earnings for all families with working wives, shows the growing importance of wives' earnings since 1970. The median percent contribution



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**TABLE 1.16** Family income, married couple, prime-age families,* 1979-96, by income component

| Family income | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| 1979 | $21,475 | $38,676 | $50,732 | $64,950 | $109,129 | $56,992 |
| 1989 | 20,453 | 39,119 | 53,908 | 72,000 | 126,750 | 62,446 |
| 1996 | 19,911 | 39,046 | 54,515 | 73,057 | 138,280 | 64,962 |
| *Percent change* | | | | | | |
| 1979-89 | -4.8% | 1.1% | 6.3% | 10.9% | 16.1% | 9.6% |
| 1989-96 | -2.7 | -0.2 | 1.1 | 1.5 | 9.1 | 4.0 |
| **Dollar change by source:** | | | | | | |
| 1979-89 | $-1,022 | $443 | $3,176 | $7,050 | $17,621 | $5,454 |
| Due to: | | | | | | |
| Husbands' earnings | -2046 | -2117 | -1802 | 1541 | 7444 | 604 |
| Wives' earnings | 1117 | 2574 | 4725 | 5466 | 11146 | 5006 |
| Other income | -93 | -14 | 253 | 43 | -969 | -156 |
| 1989-96 | $-543 | $-73 | $607 | $1,058 | $11,530 | $2,516 |
| Due to: | | | | | | |
| Husbands' earnings | -656 | -1901 | -1196 | -2329 | 3547 | -507 |
| Wives' earnings | 4 | 1377 | 1501 | 3168 | 5420 | 2294 |
| Other income | 109 | 451 | 302 | 218 | 2563 | 729 |

* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.

of working wives grew from around 26% of family income in 1979 to just below 33% in 1996. Note that all of the growth in this series occurred after 1980, when family income growth was slowest.

The income growth in total and by type of income among prime-age, married-couple families is shown in **Table 1.16** (the values in the table are averages for each income group). Among the bottom two-fifths, incomes were either stagnant or falling from 1979 to 1989, while the middle fifth achieved modest growth (6.3% over 10 years, or 0.6% annually). In contrast, income growth among married-couple families in the top two fifths grew by 10.9% and 16.1% over this period, again reinforcing the pattern of inequality growth seen throughout the chapter. In the 1990s, average income growth among the bottom 80% of these families slowed, with only the top fifth maintaining its rate of growth (annualized, the average income of this group grew by 1.5% over the 1980s and 1.3% in the 1990s).

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The data in Table 1.16 also show the dollar changes in average incomes for each group by three sources: earnings of husbands, earnings of wives, and all other income, including transfers, capital incomes, and the earnings of other family members. Over the 1980s, husbands' earnings fell among the bottom 60%, but the earnings of wives grew in each income fifth. Other income played a small role, but for these families the major determinants of their changing economic fortunes over the 1980s were the poor performance of husbands earnings and the strong growth of the earnings of wives.

Note, for example, that in the lowest fifth, while average family income fell by $1,022 (in 1996 dollars), it would have fallen by another $1,117 from 1979 to1989 were it not for wives' increased earnings. In the second and middle fifth, family income grew by $443 and $3,176, exclusively due to wives' contributions, since average husbands' earnings fell by $2,117 (second fifth) and $1,802 (middle fifth).

In the 1989-96 period, husbands' earnings declined for all but the top fifth of prime-age, married-couple families. In addition, wives' earnings stagnated in the bottom 20% and grew more slowly in the other quintiles. Thus, whereas wives in all income quintiles were able to offset their husbands' losses in the 1980s, this was no longer the case for the bottom 40% in the 1990s. For example, the added $1,377 of average wives' earnings in the second fifth failed to offset the $1,901 decline in husbands' earnings. Only families in the top fifth experienced relatively strong income growth, as the average earnings of both husbands and wives continued to grow, though less so on an annual basis, than in the 1980s.

**Table 1.17** presents the growth in annual hours worked by husbands and wives in prime-age families; **Table 1.18** shows average hourly wage rates. Together, these results show that it was more work, rather than higher hourly wages, that fueled income growth over the 1980s and 1990s. (The growth in hours of wives reflects both greater hours of those already working as well as the added hours of wives who joined the workforce over the period.)

Turning first to the hours data in Table 1.17, note that the drop in husbands' annual earnings from 1979 to 1989, shown in the previous table, occurred despite the fact that the average husband was working more, not fewer, hours. Excepting the bottom fifth, where hours were essentially unchanged, husbands in each fifth added at least another week's worth of hours in 1989 relative to 1979. By 1989, the average husband (including some not employed) in the second to top fifths worked more than full time and year-round (2,080 hours, or 40 hours for 52 weeks).

Wives' hours grew a great deal over the 1980s — about 28% — with above-average growth rates among wives in the bottom 60%. The addition of 270 hours



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**TABLE 1.17** Annual hours of work, husbands and wives in prime-age families,* 1979-96

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| **Husbands' hours** | | | | | | |
| 1979 | 1,714 | 2,079 | 2,155 | 2,220 | 2,350 | 2,104 |
| 1989 | 1,712 | 2,146 | 2,207 | 2,278 | 2,412 | 2,151 |
| 1996 | 1,633 | 2,126 | 2,227 | 2,312 | 2,450 | 2,150 |
| *Change, 1979-89* | | | | | | |
| Hours | -2 | 67 | 52 | 58 | 62 | 47 |
| Percent | -0.1% | 3.2% | 2.4% | 2.6% | 2.6% | 2.2% |
| *Change, 1989-96* | | | | | | |
| Hours | -79 | -19 | 20 | 34 | 38 | -1 |
| Percent | -4.6% | -0.9% | 0.9% | 1.5% | 1.6% | -0.1% |
| **Wives' hours** | | | | | | |
| 1979 | 555 | 851 | 1,003 | 1,212 | 1,222 | 969 |
| 1989 | 756 | 1,115 | 1,342 | 1,451 | 1,530 | 1,239 |
| 1996 | 717 | 1,250 | 1,458 | 1,595 | 1,595 | 1,323 |
| *Change, 1979-89* | | | | | | |
| Hours | 201 | 264 | 340 | 238 | 308 | 270 |
| Percent | 36.2% | 30.9% | 33.9% | 19.7% | 25.2% | 27.9% |
| *Change, 1989-96* | | | | | | |
| Hours | -40 | 135 | 116 | 145 | 65 | 84 |
| Percent | -5.2% | 12.1% | 8.6% | 10.0% | 4.2% | 6.8% |

* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.

to the average family's labor supply added more than six and a half weeks of paid work to the family's income.

For those in the bottom 60% of prime-age, married-couple families, husbands' annual earnings fell in the 1980s because of the erosion of their hourly wages: they fell 7.0% for husbands in the middle fifth and 13.3% for husbands in the lowest fifth (Table 1.18). Only husbands in the best-off fifth of families experienced significant real hourly wage growth (7.1%). Despite these wage gains at the top, the majority of husbands in these families lost ground over the 1980s, even with their increased work effort.

It is useful to note the degree to which an increase in wives' hours is neces-



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**TABLE 1.18** Hourly wages, husbands and wives in prime-age families,* 1979-96

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| **Husbands' wages** | | | | | | |
| 1979 | $8.92 | $13.99 | $17.46 | $20.48 | $31.84 | $18.54 |
| 1989 | 7.74 | 12.57 | 16.23 | 20.64 | 34.10 | 18.26 |
| 1996 | 7.71 | 11.79 | 15.55 | 19.32 | 35.03 | 17.88 |
| **Wives' wages** | | | | | | |
| 1979 | $5.78 | $7.71 | $9.29 | $11.03 | $14.44 | $9.65 |
| 1989 | 5.72 | 8.20 | 10.46 | 12.99 | 18.82 | 11.24 |
| 1996 | 6.05 | 8.41 | 10.66 | 13.80 | 21.46 | 12.07 |
| *Percent changes:* | | | | | | |
| **Husbands** | | | | | | |
| 1979-89 | -13.3% | -10.2% | -7.0% | 0.8% | 7.1% | -1.5% |
| 1989-96 | -0.4 | -6.2 | -4.2 | -6.4 | 2.7 | -2.1 |
| **Wives** | | | | | | |
| 1979-89 | -1.0% | 6.3% | 12.6% | 17.7% | 30.3% | 16.4% |
| 1989-96 | 5.6 | 2.6 | 1.9 | 6.2 | 14.0 | 7.4 |

* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.

sary to offset the fall in the wages of husbands, given that men earn significantly higher hourly wages. For example, the $1.23 drop in the hourly wage of husbands in the middle fifth from 1979 to 1989 (working 2,207 annual hours) created an annual loss of $2,715. Replacing this income would require a wife in the middle fifth (earning $10.46 an hour) to work 260 additional hours annually, or more than six extra full-time weeks.

Various factors combined to reduced the economic fortunes of the majority of these families in the 1989-96 period. First, both husbands' and wives' hours of work either fell or increased less quickly for most families, with larger declines for those in the bottom 60%. For example, husbands' hours fell by just under 80 hours (two full-time weeks) in the bottom quintile and about 20 hours in the second fifth. Wives' hours also fell in the bottom fifth from 1989 to 1996, and grew much more slowly in each other income class.

In addition, wage decline for husbands (Table 1.18) accelerated on average and was more widespread in the 1990s; only husbands in the top fifth saw an increase. The average hourly earnings of wives grew more slowly over the 1989-



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96 period; only for those in the lower fifth did wages, on average, grow more quickly in the 1990s. It appears that the strategy of increasing hours of work to counteract wage decline was less viable for these families in the 1990s relative to the 1980s, and their incomes either continued to decline (bottom fifth), stagnated (second fifth), or grew more slowly as a result.

It is not always obvious how these changes of wages earned and hours worked affected family income. **Figure 1I** and **Table 1.19** bring together the information from the prior tables to identify the role of increased earnings and hours worked by wives on family income growth in the 1980s and 1990s. The first panel of the figure focuses on the 1980s, and the bottom panel examines the 1989-96 period.

As shown in the figure, the average family income of prime-age, married-couple families would have been essentially unchanged in the absence of wives' contributions, growing 0.8% in the 1980s and 0.4% over the 1990s. In the 1979-89 period, the lowest-income families would have experienced twice the income loss that actually occurred (10.0% versus 4.8%) were it not for wives' greater work effort. As Table 1.19 shows, this contribution from low-income wives came exclusively in the form of more hours of work, which raised family income by $1,163 (1996 dollars), or 5.4% (the small decline in the wage rate of wives in this income category lowered family income by $45).

For families in the second and third fifths in the 1979-89 period, average family income would have fallen in the absence of wives' added work effort and higher wage rates. The average income of families in the middle fifth, for example, would have fallen 3.1% had not wives' added contribution led to an increase of 6.3% (Figure 1I). Table 1.19 shows that most of the $4,725 of earnings that middle fifth wives contributed over the 1980s stemmed from more work hours; about a third of this increase came from wives' higher wages. For the top two fifths, incomes would have grown on average even in the absence of wives' earnings. Nevertheless, as Table 1.19 shows, wives' contributions increased family income by 8.4% in the fourth fifth and 10.2% in the top fifth. In both of these cases, wives' wage growth outpaced growth in hours as a primary source of the increase.

In the 1990s, wives' contributions played a smaller role in family income changes. For example, the first two bars of Figure 1I, bottom panel, show that wives' earnings played no role in the 2.7% decline in the income of the bottom fifth of prime-age, married-couple families. Table 1.19 reveals that this lack of effect is attributable to the countervailing roles of the falling hours and increases in the average wage rates of low-income wives. Family income growth in the second fifth was stagnant in the 1990s, but would have fallen 3.7% in the absence of wives' contributions, which came mostly in terms of increased hours, as 2.8% of a 3.5% income gain was due to increased work effort. Only families



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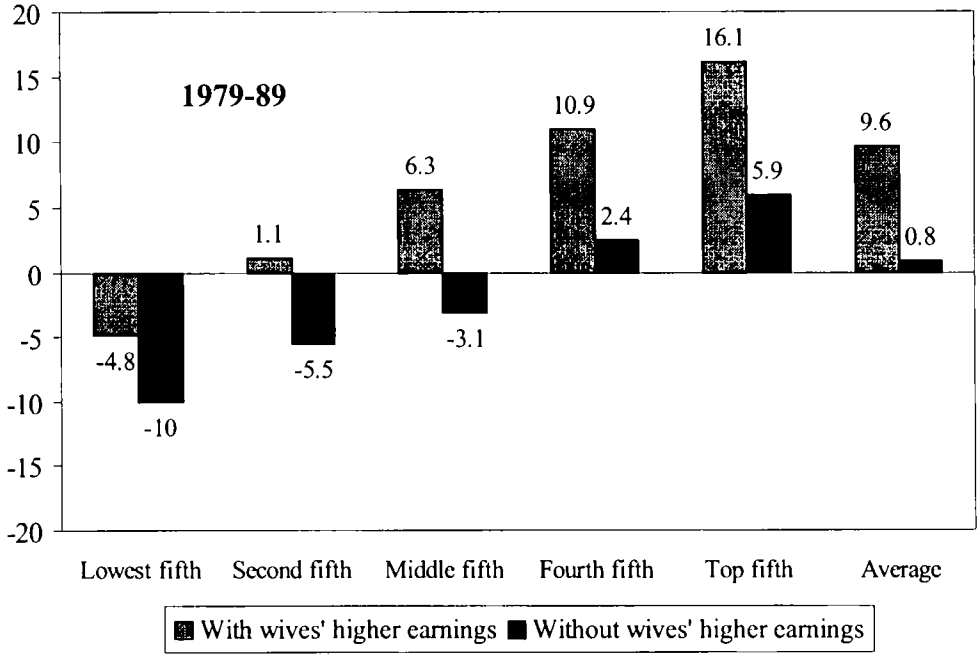
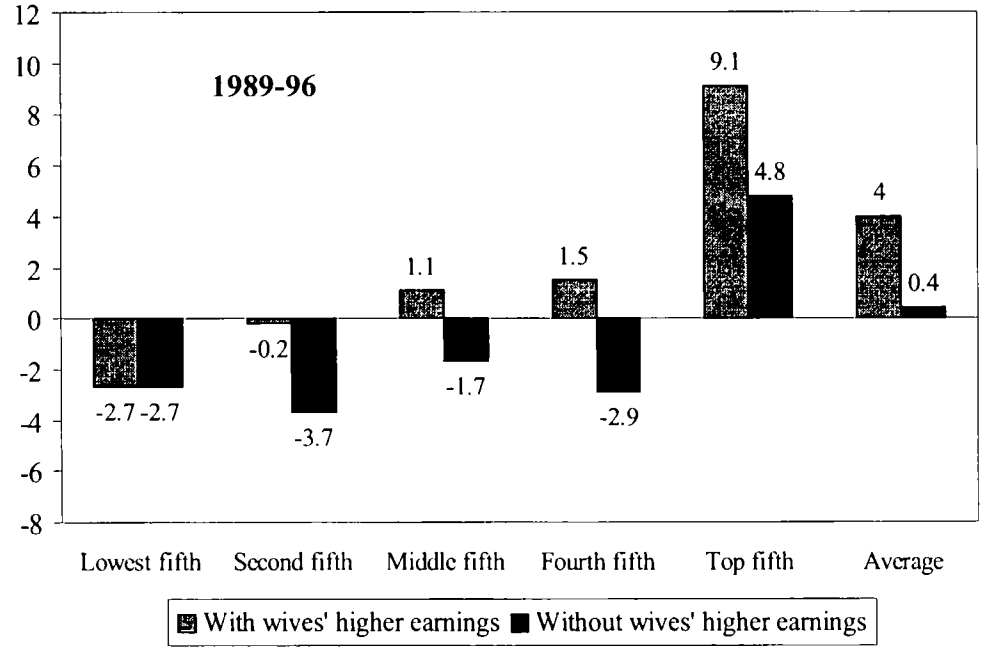
**FIGURE 1I** The effect of wives' earnings on family income, prime-age families,* 1979-96




* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.



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**TABLE 1.19** Effect on family income of changes in wives' earnings, prime-age families,* 1979-96 (1996 dollars)

| Effect on family income of changes in: | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| **1979-89** | | | | | | |
| Wives' earnings and hours | $1,117 | $2,574 | $4,725 | $5,466 | $11,146 | $5,006 |
| Wives' hours | 1,163 | 2,032 | 3,153 | 2,628 | 4,448 | 2,606 |
| Wives' wages | -45 | 542 | 1,572 | 2,838 | 6,697 | 2,399 |
| *Percent:* | | | | | | |
| Wives' earnings and hours | 5.2% | 6.7% | 9.3% | 8.4% | 10.2% | 8.8% |
| Wives' hours | 5.4 | 5.3 | 6.2 | 4.0 | 4.1 | 4.6 |
| Wives' wages | -0.2 | 1.4 | 3.1 | 4.4 | 6.1 | 4.2 |
| **1989-96** | | | | | | |
| Wives' earnings and hours | $4 | $1,377 | $1,501 | $3,168 | $5,420 | $2,294 |
| Wives' hours | -227 | 1,107 | 1,209 | 1,877 | 1,217 | 944 |
| Wives' wages | 231 | 269 | 292 | 1,292 | 4,203 | 1,350 |
| *Percent:* | | | | | | |
| Wives' earnings and hours | 0.0% | 3.5% | 2.8% | 4.4% | 4.3% | 3.7% |
| Wives' hours | -1.1 | 2.8 | 2.2 | 2.6 | 1.0 | 1.5 |
| Wives' wages | 1.1 | 0.7 | 0.5 | 1.8 | 3.3 | 2.2 |

* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.

in the top fifth experienced significant income growth over the 1989-96 period (9.1%), about half of which stemmed from wives increased earnings. As in the prior period, high-income wives gained more from increased wage rates than from added hours. Despite these large gains at the top, the fact remains that wives' contributions, though crucial to their families' economic well-being, were less effective drivers of income growth in the 1990s than they were in the 1980s.

Have the growing earnings of wives contributed to the growth of income inequality? The notion that the growth of "two-earner" families has contributed to growing inequality is intuitively plausible if one thinks that (1) there has been a growth of high-wage employed women marrying high-wage men, and (2) the increase in the hours and earnings of these women has been greater than that of their lower-income counterparts. It is true, in fact, that wives in higher-income families earn more than those in other families and that their hourly wages have grown the quickest (Table 1.18). However, the fastest growth in work hours has



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been among the wives in the bottom three-fifths (Table 1.17), and, as shown in Table 1.19, the effect of wives' hours on family income growth has been fairly even. The data discussed so far, however, only indirectly relate to whether the pattern of growth of wives' earnings led to greater inequality, and they do not address whether inequality would be higher or lower without any earnings from wives. The following table addresses this omission.

The data in **Table 1.20** allow a direct examination of the effect of wives' earnings on income inequality of prime-age, married-couple families from 1979 to 1996 and on the growth of inequality over that period. The numbers in the table are the shares of total income going to each income group, calculated with and without wives' earnings (note that, in this analysis, the top fifth is broken down into the 80-95th percentile and the top 5%). The difference between shares calculated in this manner reveals the contribution of wives' earnings to inequality. For example, in 1979, wives' earnings led to a more equal distribution of income, since without wives' earnings the lowest fifth would have had a 6.7% share of total income instead of the 7.5% share it had with wives' earnings. Overall in 1979, wives' earnings increased the income shares of the bottom four-fifths and decreased the share of income of the top fifth by 2.3 percentage points. In 1989, wives' earnings had an even larger effect on raising the income shares of the lowest 80% of families and on lessening the income share of the top fifth, which fell by 2.9 points (2.2 points in the top 5%). This pattern continued in 1996, as the size of wives' contributions to the income shares of the bottom 80% continued to grow while that of the top fifth fell further.

The bottom panel reveals that between 1979 and 1989 the income shares of the bottom 60% of prime-age, married-couple families fell, with the largest declines among the bottom fifth. In the absence of wives' earnings, however, income shares would have been 0.2 points lower in the second fifth and 0.3 points lower in the middle fifth. Conversely, they would have been 0.6 points higher in the top fifth, mostly due to the effect seen in the top 5%. This pattern shows that the shifts in wives' hours and wages were equalizing over the 1979-89 period.

In the latter period — 1989-96 — only the top 20% gained income share, with fairly uniform losses among the bottom 80% of families. Note, however, that wives' earnings had no effect in the bottom two fifths and were equalizing in the middle and fourth fifth. Thus, the slowdown in wives' earnings and hours, particularly among lower-income families, had little impact on inequality in the 1990s. Only among the top 5% is there evidence that the pattern of wives earnings dampened the growth of income share, from an increase of 2.4 points without wives' earnings to an actual increase of 1.9 points. The last panel shows the equalizing effects of wives' contributions to family income over the 1979-96 period.

The growth in work hours in the 1979-89 period took place in all families



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**TABLE 1.20** Effect of wives' earnings on income shares of prime-age,* married-couple families

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | 80-95% | Top 5% |
|---|---|---|---|---|---|---|---|
| **Family income shares** | | | | | | | |
| *1979* | | | | | | | |
| Actual | 7.5% | 13.6% | 17.8% | 22.8% | 38.3% | 23.6% | 14.7% |
| Without wives' earnings | 6.7 | 12.9 | 17.3 | 22.6 | 40.6 | 24.1 | 16.5 |
| Effect of wives' earnings | 0.8 | 0.7 | 0.5 | 0.2 | -2.3 | -0.5 | -1.8 |
| *1989* | | | | | | | |
| Actual | 6.5% | 12.7% | 17.3% | 23.0% | 40.6% | 24.7% | 15.9% |
| Without wives' earnings | 5.6 | 11.7 | 16.4 | 22.8 | 43.4 | 25.3 | 18.1 |
| Effect of wives' earnings | 0.8 | 1.0 | 0.8 | 0.2 | -2.9 | -0.6 | -2.2 |
| *1996* | | | | | | | |
| Actual | 6.1% | 12.0% | 16.8% | 22.5% | 42.6% | 24.8% | 17.8% |
| Without wives' earnings | 5.2 | 11.0 | 15.7 | 22.1 | 45.9 | 25.4 | 20.5 |
| Effect of wives' earnings | 0.9 | 1.0 | 1.1 | 0.4 | -3.4 | -0.6 | -2.8 |
| **Change in Income Shares** | | | | | | | |
| *1979-89* | | | | | | | |
| Actual | -1.1 | -0.9 | -0.6 | 0.3 | 2.3 | 1.1 | 1.2 |
| Without wives' earnings | -1.1 | -1.2 | -0.9 | 0.3 | 2.8 | 1.2 | 1.7 |
| Effect of wives' earnings | 0.0 | 0.2 | 0.3 | 0.0 | -0.6 | -0.1 | -0.5 |
| *1989-96* | | | | | | | |
| Actual | -0.3 | -0.6 | -0.5 | -0.6 | 2.0 | 0.1 | 1.9 |
| Without wives' earnings | -0.4 | -0.7 | -0.7 | -0.7 | 2.5 | 0.1 | 2.4 |
| Effect of wives' earnings | 0.0 | 0.0 | 0.2 | 0.2 | -0.5 | 0.0 | -0.5 |
| *1979-96* | | | | | | | |
| Actual | -1.4 | -1.5 | -1.0 | -0.3 | 4.3 | 1.2 | 3.0 |
| Without wives' earnings | -1.5 | -1.8 | -1.6 | -0.5 | 5.4 | 1.3 | 4.1 |
| Effect of wives' earnings | 0.1 | 0.3 | 0.6 | 0.2 | -1.1 | 0.0 | -1.0 |

* Families where the family head is 25-54.

Source: Authors' analysis of March CPS data.

and not just in prime-age, married-couple families (to whom all of the data previously presented applied). In **Table 1.21,** we pool the hours of family work effort across the family and take the average for each fifth. For the three family types in the table, family work effort increased for each income group over the 1980s, with the largest increases among the bottom 80%. Among all families, for example, those in the second fifth worked an average of 182 hours more in 1989 than in 1979, a 8.0% increase. The increase for the top group was 1.7%, though

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**TABLE 1.21** Changes in family hours worked by family type, 1979-96

| | Lowest fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Average |
|---|---|---|---|---|---|---|
| **All families*** | | | | | | |
| 1979 | 1,126 | 2,267 | 3,020 | 3,556 | 4,426 | 2,969 |
| 1989 | 1,185 | 2,449 | 3,206 | 3,792 | 4,502 | 3,093 |
| 1996 | 1,175 | 2,413 | 3,287 | 3,974 | 4,447 | 3,117 |
| *Percent change* | | | | | | |
| 1979-89 | 5.3% | 8.0% | 6.2% | 6.6% | 1.7% | 4.2% |
| 1989-96 | -0.9 | -1.5 | 2.5 | 4.8 | -1.2 | 0.8 |
| 1979-96 | 4.4 | 6.4 | 8.8 | 11.8 | 0.5 | 5.0 |
| **Married couples with children** | | | | | | |
| 1979 | 2,190 | 2,950 | 3,236 | 3,711 | 4,301 | 3,278 |
| 1989 | 2,400 | 3,279 | 3,604 | 3,914 | 4,293 | 3,498 |
| 1996 | 2,333 | 3,412 | 3,851 | 4,131 | 4,294 | 3,604 |
| *Percent change* | | | | | | |
| 1979-89 | 9.6% | 11.2% | 11.4% | 5.5% | -0.2% | 6.7% |
| 1989-96 | -2.8 | 4.1 | 6.9 | 5.6 | 0.0 | 3.1 |
| 1979-96 | 6.5 | 15.7 | 19.0 | 11.3 | -0.2 | 10.0 |
| **Unrelated individuals** | | | | | | |
| 1979 | 649 | 1,387 | 1,822 | 2,034 | 2,170 | 1,612 |
| 1989 | 759 | 1,603 | 1,944 | 2,091 | 2,246 | 1,729 |
| 1996 | 685 | 1,595 | 1,940 | 2,111 | 2,262 | 1,719 |
| *Percent change* | | | | | | |
| 1979-89 | 17.0% | 15.6% | 6.7% | 2.8% | 3.5% | 7.2% |
| 1989-96 | -9.8 | -0.5 | -0.2 | 0.9 | 0.7 | -0.6 |
| 1979-96 | 5.6 | 15.0 | 6.5 | 3.8 | 4.2 | 6.6 |

* Excludes one-person families.

Source: Authors' analysis of March CPS data.

the potential increase among these families was constrained by their very high levels of work. Note also the large increase in hours worked by middle-class married couples with children (middle panel), as hours among these families in the second and middle fifth increased by 11.2% and 11.4%, respectively. Even unrelated individuals, who by definition cannot increase family work hours by sending more workers into the labor force, saw relatively large increases in their labor supply from 1979 to 1989.



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Hours of work were stagnant, on average, for most families in the 1989-96 period; the average for all families rose by 0.8%. Of the family types we examine, only married couples with children were able to increase their average labor supply, and these increases took place only among the middle three-fifths of families. For example, among married-couple families with children in the middle fifth, hours of work grew 6.9%, or 247 hours since 1989. Since 1979, these middle-class families added 615 hours, more than 15 weeks of full-time work to their schedules. While these added hours have surely helped to raise middle-class income, they also leave significantly less time for nonmarket activities.

In sum, the results from this section have both positive and negative implications. On the plus side, there is clear evidence of increased economic progress for female workers. Since 1979, wives have increased their hours of market work; for most wives, wages have also risen. To a large extent, these increases have offset widespread decline in their husbands' earnings. Furthermore, the pattern of these changes in wives' contributions to family income have been equalizing, i.e., the income distribution for prime-age, married-couple families would have been more skewed toward the wealthy in the absence of wives increased contributions.

On the negative side, the evidence also shows that families have been working longer for less. Particularly in the 1980s, family work hours needed to increase quite sharply to compensate for negative male wage trends, explored in detail in Chapter 3. But this is a self-limiting strategy; families cannot indefinitely increase their work hours. In fact, in the 1990s the growth in wives' hours slowed considerably, lowering their ability to offset other factors, such as continued male wage decline, that placed downward pressure on income growth. Finally, the sharp increase in work hours of all families has cut into their time for nonmarket activities.

## Falling behind the earlier generations

Until this point we have exclusively focused on cross-section analyses, such as comparing the incomes of high-income, older, or married-couple families in one year to those of another. Although these comparisons accurately portray changes in various dimensions of the income distribution over time, they do not trace the incomes of particular families or individuals. For instance, consider comparisons of income growth by income fifth over a 10-year period. A person or family may be in the middle fifth in the first year but in a higher or lower fifth 10 years later. Thus, a comparison of middle-income families over time actually compares one set of families in the first year to a different set of families in the later year.



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It is especially important to note that the incomes of individuals and families generally follow a life-cycle pattern. Typically, a person, after completing schooling, starts earning income in a relatively low-paying entry-level job, sees fast income growth as job changes, accumulated experience, and seniority occur over the next two decades, and obtains slower income growth in his or her later working years. As **Figure 1J** shows, young families (headed by a person in his or her twenties) in 1996 had much lower incomes than families headed by a middle-aged person (in his or her forties or fifties). It also shows that incomes grow relatively rapidly as the household head proceeds through his or her thirties and forties, and that income growth slackens and then declines as the household head approaches retirement years.

Viewed this way, the income growth of families as a whole over a 10-year period depends both on how high incomes are for young families when they start out and on how fast incomes grow as families progress through their life-cycle pattern. In fact, the slow growth of median family incomes in recent years is most accurately portrayed as young families starting off with lower incomes than their predecessors while older families proceed to higher incomes at a historically slow pace.

One way to examine income growth over the life-cycle is to examine the income trajectories of "birth cohorts" (a group of people born in the same years) over time, as in **Table 1.22**. The first column shows the median income, in 1996 dollars, of males age 25-34 in the years 1956 through 1996. The second column tracks the median income of 35- to 44-year-olds over these periods. We focus exclusively on males' median incomes, since trends in female income are confounded by large changes in labor supply over this period.

This type of table allows two related types of analyses. By comparing the income levels down each column, we can compare levels across cohorts, such as the different income levels experienced by 25- to 34-year-olds, at different points in time. Thus, reading down column 1 shows that the median income of young males age 25-34 was about 19% lower in 1996 than in 1976. We can also track a particular cohort's progress through time by reading along the diagonal (more on this approach below).

We saw earlier (Table 1.3) that young persons have been starting out from lower income levels in recent years. Table 1.22 corroborates this, as we see that 25- to 34-year-old males have started out with successively lower incomes in 10-year intervals since 1976 (note that this analysis does not follow the usual peak-to-peak comparisons employed throughout this book). Similarly, the median incomes of males age 35-54 also fell over the past 20 years.

In this context, however, we are most interested in changes that occurred within cohorts (along the diagonal). This table tracks three cohorts over 20 years:



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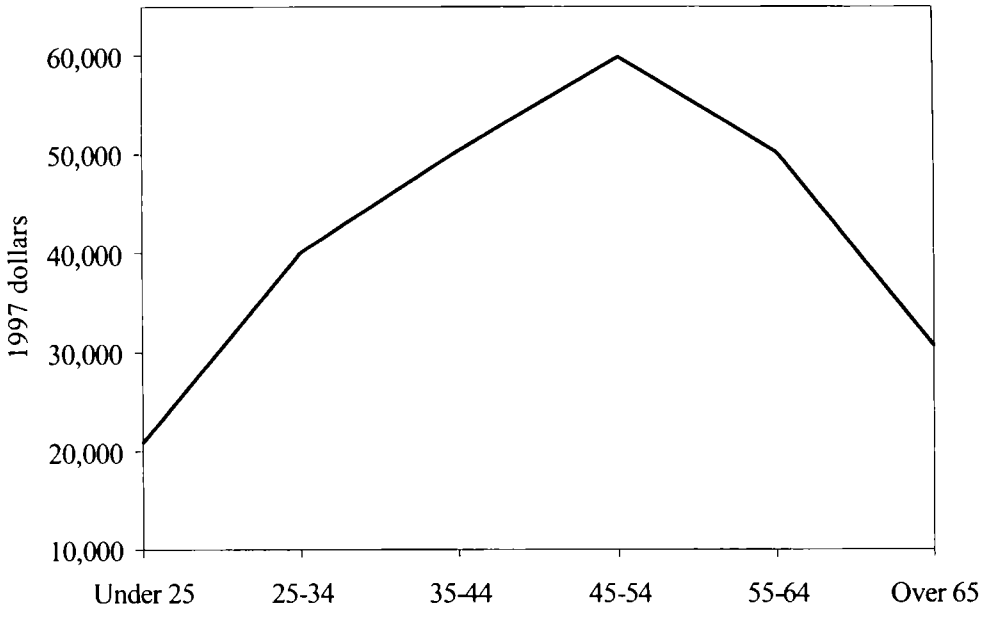
**FIGURE 1J** Median family income by age of householder, 1997




Source: U.S. Bureau of the Census.

**TABLE 1.22** Median income by male 10-year birth cohorts, 1956-96

| Year | Ages 25-34 | Ages 35-44 | Ages 45-54 |
|---|---|---|---|
| 1956 | $22,321 | $24,251 | $22,851 |
| 1966 | 29,004 | 32,561 | 30,836 |
| 1976 | 30,949 | 37,841 | 37,228 |
| 1986 | 27,432 | 37,467 | 39,735 |
| 1996 | 25,179 | 32,167 | 36,232 |
| *Percent change* | | | |
| 1956-66 | 29.9% | 34.3% | 34.9% |
| 1966-76 | 6.7 | 16.2 | 20.7 |
| 1976-86 | -11.4 | -1.0 | 6.7 |
| 1986-96 | -8.2 | -14.1 | -8.8 |

Source: U.S. Bureau of the Census, Income Website.



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the first cohort moves from 1956, when its members were 25-34, with median income of $22,321 (1996 dollars), to 1976, when they were 45-54, with median income of $37,228. Similarly, the second cohort can be tracked from 1966 (median income $29,004) to 1986 (median income $39,735). While each of these cohorts started out higher than the previous one, their incomes grew successively more slowly. For example, the median income of the first cohort grew 67%, that of the second cohort grew 37%, and that of the third cohort grew 17% (from $30,949 to $36,232). In fact, for this third cohort, as it moved from ages 35-44 in 1986 to 45-54 in 1996, its median actually fell, from $37,467 to $36,232, a 3% decline.

In sum, we find that, while each cohort continues to experience some measure of the expected age-income profile revealed in Figure 1J, over the last 20 years each successive cohort has been worse off than the preceding cohort at the same age. This break in upward income mobility across cohorts raises the issue of whether the most recent cohorts (those age 25-34 in 1986 and 1996) will ever achieve incomes in their "prime age" equal to those of the earlier postwar cohorts. Given continued slow income growth and falling real wages, it is possible that the recent (and some future) cohorts will have lifetime incomes inferior to those of their parents' generations.

## Income mobility

This section examines a related aspect of the dynamic changes in economic well-being: how much income mobility exists in the economy? If a family is in the lowest fifth in one period, how likely is it to move up to a higher fifth over time? Is this likelihood fixed, or does it tend to fluctuate? These are the questions addressed below.

In order to address these mobility issues we use longitudinal data, or data that follow the same persons over time. Each person is assigned to an income fifth at the beginning and end of the relevant periods of observation based on his or her family's income. Different income cutoffs are used for each period, meaning that the 20th percentile upper limit in, for example, 1979 will be different than that of 1989. This approach to income mobility examines a family's *relative*, as opposed to absolute, position in the income distribution.

In this sense, the analysis tracks how families are doing relative to others they started out with in the same age cohort and income class. If each family's income grew by the same amount (in percentage terms), there would be no change in mobility, i.e., no changes in the relative positions of families in the income distribution. If, however, a family that starts out in the bottom fifth experiences



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**TABLE 1.23** Income mobility, 1969-94

| | 1994 Income group | | | | | |
|---|---|---|---|---|---|---|
| 1969 Income group | First fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Total |
| First fifth | **41.0%** | 24.9% | 16.2% | 12.1% | 5.8% | 100.0% |
| Second fifth | 22.4 | **24.7** | 23.9 | 16.1 | 13.0 | 100.0 |
| Middle fifth | 16.9 | 21.0 | **23.5** | 22.8 | 15.9 | 100.0 |
| Fourth fifth | 11.3 | 18.5 | 19.7 | **24.2** | 26.3 | 100.0 |
| Top fifth | 9.5 | 10.6 | 16.6 | 24.5 | **38.8** | 100.0 |

Source: Unpublished tabulations of the PSID by Peter Gottschalk.

faster income growth than other low-income families, it may move into a higher fifth , i.e., this family will experience upward mobility.

**Table 1.23** presents a "transition matrix" for the period 1969-94. Going across each row in the table, the numbers reveal the percent of persons who either stayed in the same fifth or "transitioned" to a higher or lower one. For example, the first entry shows that 41.0% of persons in the bottom fifth in 1969 were also in the bottom fifth in 1994. At the other end of the income scale, 38.8% of those who started in the top fifth stayed there. The percent of "stayers" (those who did not move out of the fifth they started out in) are shown in bold.

Note that large transitions are uncommon. For example, only 5.8% of those who began the period in the first fifth ended up in the top fifth, while only 9.5% fell from the top fifth to the lowest fifth. Those transitions that do occur are most likely to be a move up or down to the neighboring fifth. For example, among the middle three-fifths, slightly less than two-thirds of the transitions were to neighboring fifths.

Though Table 1.23 does not reveal a great deal of income mobility, the data do show that mobility exists and that families can and do move up and down as their relative fortunes change. How does this fact comport with the historically large increases in cross-sectional inequality that we focused on throughout this chapter? In fact, if cross-sectional income inequality is higher in 1996 than in 1979, as we have shown, then, unless mobility has increased, families will grow further apart as time progresses. That is, the increase in cross-sectional inequality means that, at any point in time, a family at the bottom of the income scale is further (in terms of the difference in their incomes) from the family at the top of the scale. But if the chances of moving from the bottom to the top — the rate of income mobility — were to increase, the low-income family would at least have



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**TABLE 1.24** Income mobility over the 1970s and 1980s*

| | 1979 Income group | | | | | |
|---|---|---|---|---|---|---|
| 1969 Income group | First fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Total |
| First Fifth | **61.5%** | 24.0% | 8.7% | 4.4% | 1.5% | 100.0% |
| Second Fifth | 22.7 | **31.3** | 27.5 | 12.9 | 5.6 | 100.0 |
| Middle Fifth | 9.6 | 22.5 | **29.6** | 26.1 | 12.2 | 100.0 |
| Fourth Fifth | 3.3 | 17.3 | 22.4 | **31.6** | 25.4 | 100.0 |
| Top Fifth | 2.9 | 5.0 | 11.9 | 25.1 | **55.2** | 100.0 |

| | 1989 Income group | | | | | |
|---|---|---|---|---|---|---|
| 1979 Income group | First fifth | Second fifth | Middle fifth | Fourth fifth | Top fifth | Total |
| First fifth | **61.0%** | 23.8% | 9.5% | 4.6% | 1.1% | 100.0% |
| Second fifth | 22.9 | **33.2** | 27.7 | 13.5 | 2.7 | 100.0 |
| Middle fifth | 8.3 | 25.2 | **29.5** | 25.7 | 11.4 | 100.0 |
| Fourth fifth | 4.6 | 13.0 | 23.0 | **33.2** | 26.2 | 100.0 |
| Top fifth | 2.7 | 4.9 | 10.8 | 22.8 | **58.8** | 100.0 |

* Unlike the previous table, this table averages family income over three years in order to "smooth out" temporary transitions.

Source: Unpublished tabulations of the PSID by Peter Gottschalk.

a better chance of climbing closer to its distant, more wealthy counterpart (of course, mobility works both ways: increased mobility also means the wealthy family has a greater chance of falling from its privileged heights). If, instead, the rate of mobility is either unchanged or diminished over time, increasing point-in-time inequality will not be offset by changes in mobility. In order to determine whether the rate of mobility has changed, we must compare two transition matrices covering periods of equal length.

**Table 1.24** provides such a comparison. It presents two transition matrices, one for the 1970s and the other for the 1980s. (Unlike the previous table, this table uses three years of family income data for each year, e.g., a family's 1969 income is actually the average of its 1968-70 data. This approach is preferred in mobility analysis since it "smooths out" temporary transitions. However, due to data constraints, we were unable to use this approach in Table 1.23.) These tables again show relative stability (the largest shares of persons are "stayers," located along or close to the diagonal). For example, both 10-year periods re-



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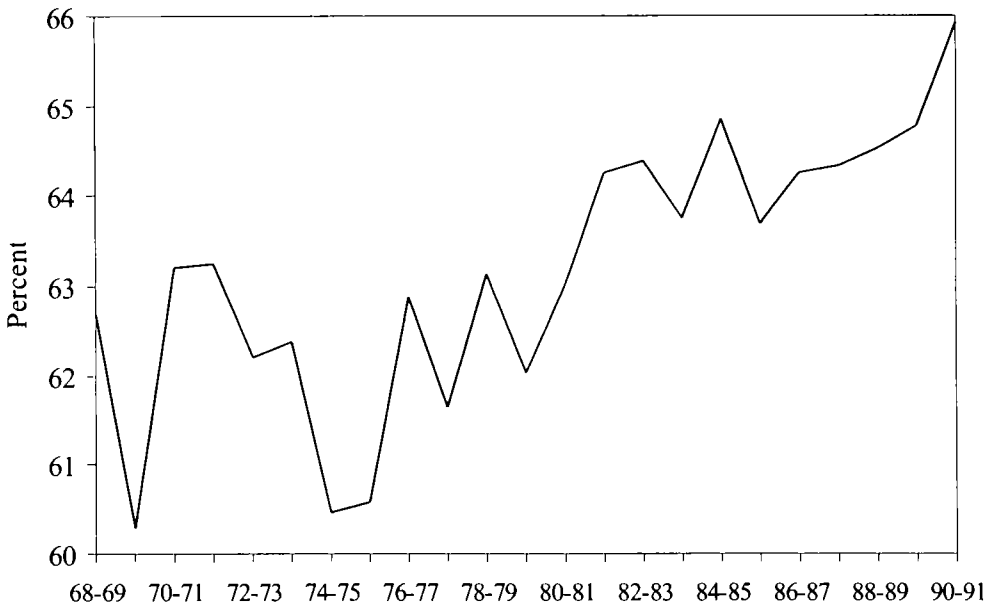
**FIGURE 1K** Percent staying in same fifth in each pair of years, 1968-69–1990-91




Source: Gottschalk and Danziger (1998).

veal that about 85% of persons in families stayed in the first or second fifths. But more important in this context is the fact that mobility has not increased. The shares of both "stayers" and those who made transitions are very similar in both periods. For example, 61.5% remained in the lowest fifth over the 1970s, and 61.0% remained there in the 1980s. The shares who remained in the middle were also very close (29.6% versus 29.5%), and only a slightly larger share remained in the top fifth in the 1980s. There is no evidence here of an increase in mobility to offset increased inequality.

In fact, as **Figure 1K** shows, the rate of mobility appears to have declined since the late 1960s. This figure uses the same longitudinal data source as above to plot the percent of persons who stayed in the same fifth, one year to the next. Thus, an upward trend suggests declining mobility rates, as persons are less likely over time to make the transition across income classes. For example, in 1969, 62.7% of persons ended up in the same quintile they started in one year earlier, in 1968. At the end of the period, between 1990 and 1991, 65.9% failed to move to either a lower or higher income group. The fact that the graph drifts upward over the period under analysis implies that rate of mobility, as measured by the probability of moving to a different income fifth in an adjacent year, has fallen.

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## Conclusion

The most important development regarding contemporary income trends is the slow and unequal growth that continues unabated. Over the 1979-89 period, rapid income growth among upper-income families and stagnant or falling incomes for the bottom 60% of families led to sharp increases in inequality. At the same time, the income of the median family grew more slowly (0.4% per year) than over any other postwar business cycle.

Since 1989, median family income growth has been stagnant for most family types, and the 1997 median is just $285 (in 1997 dollars) above its 1989 level. In prior recoveries, the income of the median family had far surpassed its prerecession level by this point in the business cycle. In fact, our analysis of an important source of family income growth in the 1980s — the contributions of working wives — shows that this source was insufficient to counteract the negative hours and earnings trends in the 1990s that beset the bottom 40% of prime-age, married-couple families. Finally, younger families starting out in the 1980s or 1990s have done so from lower income levels than earlier generations, and their likelihood of pulling ahead in later years has fallen.

In the Introduction, we note that the 1997-98 respite from the labor-market problems that characterized the last few decades has the potential to lift family incomes in the latter part of the decade (barring, of course, an economic downturn). Nevertheless, should unemployment begin to rise and the labor market become less "tight," there is, in our view, nothing to prevent a return to the pattern of slow and unequal family income growth that has been the norm since the late 1970s.

The remainder of the book elaborates on the themes established in this chapter. The next chapter focuses on changes in the level and distribution of taxes in order to examine the extent to which the U.S. tax system has exacerbated or ameliorated the slow and unequal income growth of the 1980s and 1990s. The third and fourth chapters examine the labor market trends (wages and employment) that are at the heart of the rise in inequality and sluggish income growth. Chapters 5 and 6 broaden the income analysis by examining trends in wealth and poverty. Chapter 7 examines the impact of wage and income trends from a regional perspective, and Chapter 8 compares trends in the United States to those in other advanced countries.



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**Attachment Number:** [ATTACH.D82]ARMS162354987.036

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Robert_F._Schoeni@cea.eop.gov ( Robert_F._Schoeni@cea.eop.gov [ UNKNOWN ] )

CREATION DATE/TIME:22-MAR-1999 09:08:32.00

SUBJECT: Comparable Worth -- FYI

TO: Cordelia W. Reimers ( CN=Cordelia W. Reimers/OU=CEA/O=EOP [ CEA ] )
READ:UNKNOWN

TO: Rebecca M. Blank ( CN=Rebecca M. Blank/OU=CEA/O=EOP [ CEA ] )
READ:UNKNOWN

TEXT:
FACT & FALLACY
The Facts About Pay Equity
The AFL-CIO recently launched a "pay equity" campaign with a push for new legislation in 22 states and President Clinton has proposed a $14 million equal pay initiative which would toughen enforcement of the Equal Pay Act (EPA) and Title VII of the Civil Rights Act, and increase violator penalties. Both initiatives are framed as attacks on workplace discrimination against women, which these parties claim is the primary cause
of the more than 25 percent gender pay gap. But is discrimination the primary cause of the gender pay gap? Is there other evidence of increased discrimination in the workplace? Would comparable worth ("pay equity") legislation really help women workers or would it be more likely to hurt them?
For the full version of this issue of Fact & Fallacy, please go to http://www.epf.org/ff/ff990315.htm.